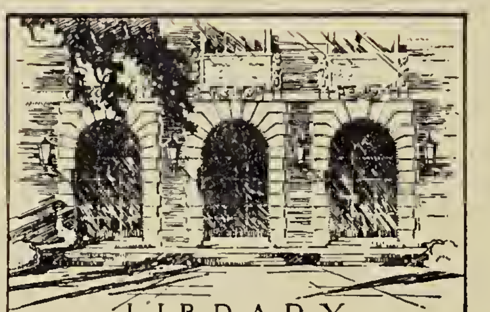

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Original Communications.

SECONDARY CATARACT.

AN EXPERIMENTAL STUDY.[*]

By W. H. BATES, M. D.

THE term secondary cataract is commonly applied to a condition, often following the removal of the lens, in which the pupil is veiled by a more or less opaque tissue.

It is generally admitted that in a large proportion of all cataract extractions (at least seventy per cent. is a conservative estimate) secondary cataract develops within three months after the operation. Moreover, this unfortunate sequel to cataract operation, if it does not develop early, not infrequently appears during the next twelve months and later. Even in those cases of cataract operation which are considered successful an examination of the eye will often reveal the presence of secondary cataract partially closing the pupil. An opaque membrane may cover part of the pupil and vision still be normal. Such a membrane can be seen in nearly all operated eyes. I have not met with an exception even in cases with vision = $\frac{20}{20}$ +. It is safe to say, therefore, that ninety-nine per cent. of all eyes after cataract extraction have a partial or complete secondary cataract.

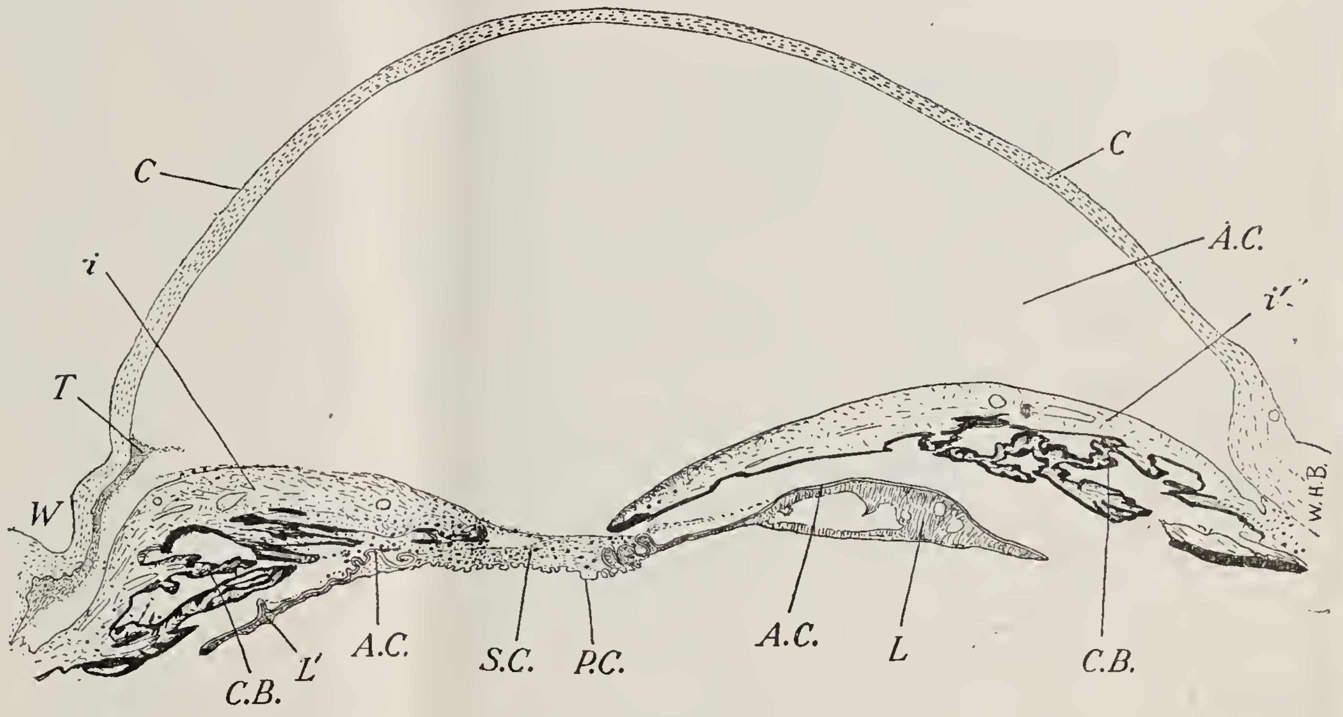

FIG. 1.

Since the operations suggested for the prevention of secondary cataract—such as the removal of portions of the anterior capsule, the incision of the posterior capsule after removal of the lens, or the removal of the lens in its capsule—have not given satisfactory results, the subject seemed to justify a new and careful study.

Although authorities differ somewhat as to the nature and origin of the secondary cataract, the opinions of Schweigger and Fuchs may be considered as fairly representative.

Schweigger[†] says: "A genuine secondary cataract depends on thickening and opacification in the capsule of the lens, visible in the eye even in the early weeks after extraction, though in many instances not until some months later. Furthermore, a secondary cataract may be additionally thickened by iritic exudations."

Fuchs[*] says: "It may also happen that the after-cataract does not develop until later on; the epithelium of the anterior capsule which has been left behind proliferating and inducing a secondary thickening and opacity in the latter."

I have been unable to confirm these views, but, on the other hand, in a long series of operations on the eyes of rabbits, with a careful morphological study of the changes which follow section of the cornea and removal of the lens, I have been able to trace, step by step, the formation of a connective-tissue membrane veiling the pupil. The posterior capsule was usually wrinkled or thrown into folds and did not alone form the secondary cataract, nor was it thickened. I wish to emphasize the fact that in the rabbit I did not find on a careful microscopic examination that secondary cataract was ever due to the opacity or thickening or wrinkling of the lens capsule. Its microscopical structure was invariably found unchanged (see Figs. 1 and 2).

The Formation of Secondary Cataract in the Rabbit.—In the rabbit the events which happen during and after extraction of the lens, as determined by microscopical examination of eyes enucleated immediately after the operation and at various later periods, are as follows:

When the anterior chamber is opened a clear fluid flows out, which is aqueous humor. A drop of this fluid placed on a glass slide does not clot nor show other physical change in fifteen minutes. This fact is well known. When, however, a few moments later the wound is reopened—as, for example, to perform capsulotomy—a few drops of fluid escape. If a drop of this latter fluid is placed on a glass slide, it clots spontaneously.

---

[*] From the Department of Pathology, College of Physicians and Surgeons, Columbia University, New York.

[†] *Arch. of Ophth.*, 1898, vol. xxvii, pp. 267, 268.

[*] *Text-book*, p. 699.

This clot, when stained and examined with the microscope, shows the structure of fibrin. Each time the wound is reopened—to remove the lens or for some other reason—some fluid escapes, which clots like blood on standing for a short time. In thirty-five eyes enucleated three days or less after extraction of the lens, fibrin was found in the pupillary area of the anterior chamber in all (see Fig. 3). In thirty-one eyes enucleated from three days to two weeks after extraction of the lens, there were present in addition to, but closely associated with, more or less fibrin, scattered connective-tissue cells, or, in the later periods, well-organized connective tissue. After two weeks new connective tissue had largely replaced the fibrin in forty-three eyes examined. With the microscope, either fibrin or connective tissue, or both together, were found in all cases, although in a hundred and nine extractions of the lens which I have made in the rabbit, thirty had a clear or black pupil when examined with the ophthalmoscope and by oblique illumination. The posterior capsule was always thrown into folds, but in no case was it found opaque or thickened. The capsule was not necessary to the formation of secondary cataract because similar connective-tissue membranes formed in the pupillary area after the posterior capsule was incised and rolled up behind the iris, and also after the operation when the lens was removed in its capsule. The anterior capsule did not form part of the central pupillary membrane, but was usually found behind the iris.

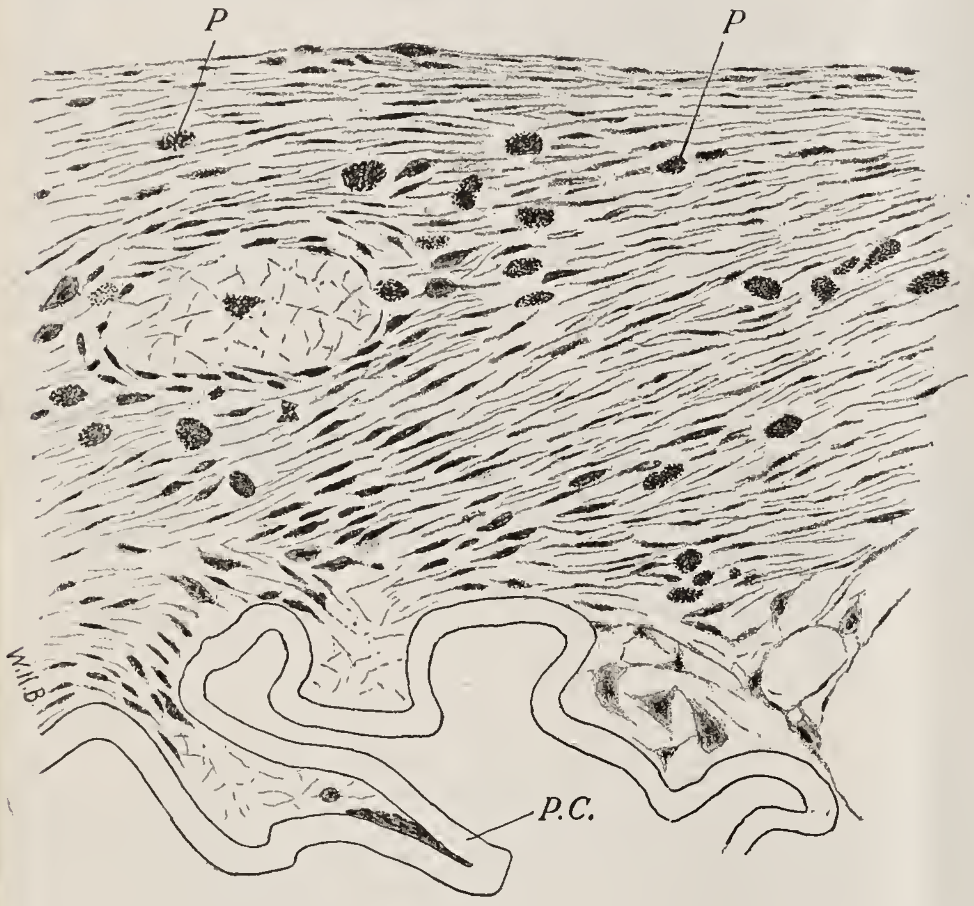

FIG. 2.

The mode of formation of secondary cataract in the rabbit may be briefly described as follows: The repeated evacuation of the anterior chamber during the operation for extraction of the lens is followed by the formation of fibrin in the anterior chamber and in the pupillary area, in and about which the connective tissue develops which forms the secondary cataract. It is probable that the fibrin acts as a nidus for the development of new connective tissue, and that the formation of secondary cataract is accomplished in the same way as the organization of a thrombus by a process well known in pathology.

This view of the formation of secondary cataract in the rabbit is confirmed by the fact that similar membranes can be produced at will in normal eyes without the extraction of the lens, by repeated evacuation of the anterior chamber with a hypodermic syringe. Here, too, the injury is followed by the formation of fibrin which is gradually replaced by connective tissue.

Also, in eyes which have healed after extraction of the lens with no *apparent* secondary cataract, new connective tissue in appreciable amount will appear in the pupil after repeated evacuation of the anterior chamber with a hypodermic syringe.

It was observed clinically in rabbits, when fibrin appeared in the pupil after extraction of the lens and secondary cataract developed later, that if the fibrin was large in amount the secondary cataract was thicker and denser than when the fibrin was present in smaller quantity. When little or no fibrin appeared after the operation, secondary cataract did not follow. Therefore, to prevent the formation of secondary cataract, it seems desirable, if possible, to prevent the formation of fibrin in the pupillary area during the operation or to secure its speedy removal afterward.

Delayed Formation of Secondary Cataract in the Rabbit.—One rabbit was operated upon with no apparent secondary cataract in two weeks. Three months later a well-marked secondary cataract had appeared which, when examined with the microscope, was found to consist principally of connective tissue. The question may be asked, "How did this secondary cataract form?" I believe it can be answered in two ways: First, that connective tissue was present two weeks after the operation, but that it was transparent; later, it became opaque. In support of this view, I have found in the rabbit that a thick connective-tissue membrane may cover the area of the pupil and be transparent.

Second, that transparent fibrin may not become organized at first. I have found with the microscope fibrin in the anterior chamber and pupillary area three months after operation, which was not seen with the ophthalmoscope or by the aid of oblique illumination.

I attribute the increasing opacity of the new-formed connective tissue in the pupillary area to the increasing density of the intercellular stroma as the tissue grows older.

The Prevention and Repair of Secondary Cataract *in the Rabbit.*—Having described the structure of secondary cataract and the method of its formation in the rabbit, I shall recount a number of experiments performed in the endeavor to find some means of prevention or repair of secondary cataract.

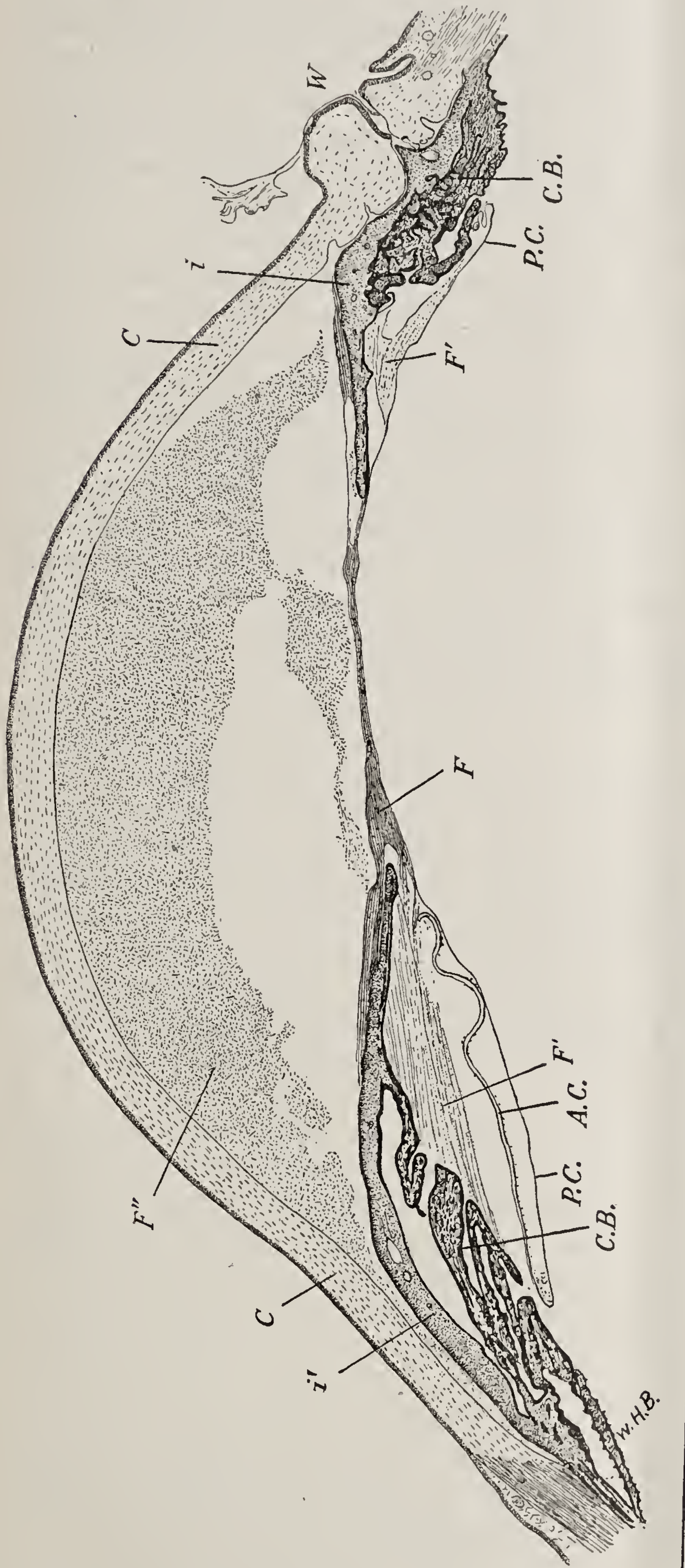

Fig. 3.

The first inquiry was directed to ascertaining the source of the fibrin-forming fluid; the second, to the prevention of the formation of fibrin by general or local measures; the third, to the removal of fibrin in the pupil, and the fourth, to the prevention of the appearance of the fibrin-forming fluid in the anterior chamber, which was the only series of experiments giving a successful result.

Source of the Fibrin-forming Fluid in Early Stages of Secondary Cataract.—It was thought possible that the lymph spaces of the cornea supplied some fibrin-forming fluid, and experiments were made on eighteen eyes in which the tissue of the centre of the cornea was scraped and incised. In twenty minutes no fluid visible to the eye appeared. The eyes were enucleated. With the microscope a small amount of fibrin was discovered in ten of the eighteen eyes. I was unable to obtain any fluid from the tissue of the cornea with a hypodermic syringe.

Having found that the injured cornea is not an important source of the fibrin-forming fluid, experiments were made to determine the share which the larger and deeper lymph spaces and the blood-vessels of the iris and ciliary body might have in furnishing the fibrin-forming fluid.

The following experiment was performed to determine whether the fibrin-forming fluid came from the blood or lymph:

The aqueous humor of the anterior chamber of the *right* eye of a rabbit was evacuated by a hypodermic needle. In five minutes the anterior chamber had refilled with a clear fluid, which was withdrawn and placed on a glass slide. It coagulated in three minutes. A solution of indigo-carmine was then injected into the large vein of the ear until the skin and mucous membranes of the animal became deep blue. The aqueous humor of the anterior chamber of the *left* eye was now removed and was, as is usual, colorless. In five minutes the anterior chamber of this eye had refilled with a blue fluid. This blue fluid, when withdrawn, coagulated in three minutes. Both eyes were now enucleated and hardened in alcohol, ninety-seven per cent. Sections showed the blood-vessels of both eyes tinged with blue. In the right eye, the anterior chamber contained a colorless material. In the left eye, the material in the anterior chamber was colored blue. The cornea near the wound made by the hypodermic needle was tinged blue.

In a second experiment, the lens was first extracted from the *right* eye. The blue fluid was then injected intravenously as before, when the lens was extracted from the *left* eye. Both eyes were then enucleated and hardened. The anterior chamber of the right eye was clear, while that of the left eye was filled with a blue fluid. The cornea of the left eye was blue, the color being deepest in the region of the wound and becoming gradually less intense toward the opposite side of the cornea. It was noted during the operation that the absorption of this blue fluid by the cornea occurred rapidly and that it ceased when the wound was closed with sutures.

In a third experiment, the anterior chamber of the ight eye was evacuated with a hypodermic syringe. ive minutes later it had refilled. A drop of this second luid placed on a glass slide clotted in three minutes. large quantity of normal salt solution was then inected into the large vein of the rabbit's ear until the ucous membranes became pale—more than a pint was njected. After this, the anterior chamber of the *left* ye was evacuated of normal aqueous humor. In five inutes it had refilled. This second fluid, when withrawn from the anterior chamber and placed on a glass lide, did not coagulate until after thirty minutes, when brin slowly formed.

The conclusion drawn from these three experiments, nd others of similar nature, is that the fibrin-forming uid which appears after the evacuation of the anterior hamber comes not in any considerable quantity from he cornea, but chiefly from the blood-vessels and lymph paces of the iris and ciliary body.

Is the Fibrin-forming Fluid of Inflammatory Oriin?—The next step in my study was to determine hether the presence of the fibrin-forming fluid is neessarily associated with congestion of the iris or ciliary ody. The following experiment was performed:

The cornea was incised with a cross cut at the centre, aking four flaps. A suture was inserted in the apex of ach flap and in the conjunctiva opposite its base. Vhen the suture was tied, the flap was turned inside ut. A considerable quantity of fluid escaped, which oagulated spontaneously. In two hours the eye was nucleated. With the microscope, the iris and ciliary ody were not found swollen, as they usually are immeiately after extraction of the lens. This experiment inicates that the fibrin-forming fluid can be obtained ithout appreciable congestion of the iris or ciliary body, ut does not prove the absence of certain inflammation henomena.

In another series of experiments the subconjunctival njection of the suprarenal extract, which blanched the lood-vessels, did not prevent the appearance of the brin-forming fluid. The use of atropine and cocaine, hich dilated the pupil, was also without effect. I do ot believe that the use of remedies which retard inlammation will stop the formation of fibrin in the upillary area.

Prevention of Fibrin Formation in the Anterior hamber.—Since the fibrin-forming fluid in the anteior chamber has its origin in the blood and lymph, t was conjectured that the use of substances which revent coagulation of the blood, either by intravenous njection or locally, might also prevent coagulation of he fluid in the anterior chamber.

A number of experiments were now undertaken to revent the formation of fibrin in the anterior chamber y the intravenous injection of water, salt solutions of arying strength, leech extract, peptone, and antialbuid. Of all the substances employed, normal salt soluions gave the best results, which were but partially successful, the formation of fibrin being delayed less than thirty minutes.

The use of various substances locally in the anterior chamber was tried to prevent coagulation of the fibrin-forming fluid. The first experiments were made with solutions of carbolic acid and salicylic acid, which were syringed into the anterior chamber to prevent the emigration of leucocytes, believed to determine coagulation of the blood. Prudden has shown * that these acids prevent the emigration of leucocytes from an inflamed blood-vessel of the mesentery of a frog. My experiments were unsuccessful in preventing the formation of fibrin in the anterior chamber by the injection into it of solutions of dilute salicylic or carbolic acid.

After the failure of the above experiments, a second series was undertaken with substances which are believed to retard or prevent coagulation of the blood. They were injected into the anterior chamber in solutions of various strengths, and included sodic chloride, peptone, sulphate of magnesium, oxalate of potassium, chloride of calcium, antialbumid, and leech extract. In the most favorable cases the formation of fibrin was delayed for half an hour. Normal salt solution, as well as the other substances used, when syringed into the anterior chamber during the operation for removal of the lens, lessened the formation of fibrin. Salt solution did not induce evidences of irritation in the iris.

Removal of Fibrin from the Anterior Chamber.—Experiments were now made with substances which might dissolve fibrin. During the operation, solutions of pepsin, trypsin, pancreatin, and the fresh gastric juice of the rabbit and of the dog were in turn syringed into the anterior chamber. The formation of fibrin was not prevented, nor was it ever made to disappear after the use of digestive fluids in the anterior chamber. Besides failing to prevent or dissolve fibrin, these digestive fluids induced severe inflammatory phenomena in the iris.

I next attempted to remove mechanically the fibrin which appeared in the pupil immediately after the removal of the lens. These experiments also failed. Some forms of fibrin are so adhesive that when adherent to the iris or ciliary body these structures were torn before the fibrin was removed. The manipulations were always followed by an increased amount of fibrin in the pupil.

A number of experiments were made to hasten the absorption of fibrin in the pupillary area by the subcutaneous injection in the animal of large quantities of water. These experiments were followed by apparently good results, and were so encouraging that I hope to continue them until some definite conclusions are reached.

Prevention of the Accumulation of the Fibrin-forming Fluid in the Anterior Chamber.—The many failures recounted above led me to believe that the formation of fibrin and the development of secondary cataract could not be prevented in the rabbit when the fibrin-forming fluid was allowed to refill the anterior chamber after extraction of the lens. Experiments followed in which the anterior chamber was refilled with normal salt solution before the fibrin-forming fluid accumulated. These experiments were successful. It was necessary to operate quickly. It was also found necessary to close the wound with sutures immediately, and to prevent drainage from the anterior chamber later. When the intraocular tension was restored by refilling the anterior chamber with salt solution quickly, no fibrin-forming fluid appeared, the pupil remained clear of fibrin, and no secondary cataract developed.

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* *American Journal of the Medical Sciences*, January, 1881.

As a result of these and other experiments I found the best method for the prevention of secondary cataract in the rabbit to be as follows:

The Procedure which was Most Successful in Preventing Secondary Cataract.—1. The section in the cornea is made with a Graefe cataract knife. Normal salt solution (three fourths per cent.) was immediately syringed into the anterior chamber—the nozzle of the syringe not being allowed to enter the anterior chamber.

2. The second step in the operation is the insertion of a central corneal suture with a loop left in the wound to permit the exit of the lens, and the anterior chamber is again syringed with salt solution.

3. The capsulotomy is made unusually free with a cross cut extending behind the margins of the pupil.

4. The lens is now extracted, the central suture tied, and the anterior chamber filled with the salt solution.

5. Three sutures, or more if necessary, to completely close the wound, are inserted. The anterior chamber is immediately restored with normal salt solution instead of allowing it to become filled with the coagulable fluid, as happens after the usual operation for removal of the lens. A quick operation is indicated. Ten minutes is ample time, as a rule, for the operation on the rabbit. When the operation is done quickly, the wound closed with sutures, and the anterior chamber restored with normal salt solution, a clear, circular, central, and dilated pupil is obtained immediately after the operation. Healing follows with a notable absence of photophobia or other signs of irritation or inflammation. Neither fibrin nor secondary cataract appears.

When the operation is complicated by hæmorrhage into the anterior chamber or is protracted for a considerable time, fibrin appears in the area of the pupil. The evacuation of the anterior chamber repeatedly and the introduction of instruments into it are followed by the formation of fibrin. Prolapse of the iris and loss of vitreous delay the operation, but do not necessarily result in secondary cataract.

Sources of Failure in Preventing Secondary Cataract.—The most frequent source of failure in preventing secondary cataract is the reopening of the wound after the operation. The anterior chamber refills wit a coagulable fluid, fibrin appears in the pupil, and is replaced later by connective tissue.

Iritis is a less frequent cause of secondary catarac Remnants of the lens in the pupillary area are a rar complicating factor in secondary cataract in the rabbi But a long series of operations has convinced me tha if the wound is made about half the circumference the cornea and the capsulotomy is free, the lens ma without difficulty, be completely removed.

CONCLUSIONS.

1. Secondary cataract in the rabbit is compose of new connective tissue, usually, together with the fol ed posterior capsule of the lens. But the opacity of th structure occupying the pupillary area is due to the ne connective tissue and not to the capsule.

2. The *formation* of secondary cataract in the rabb begins with the accumulation in the anterior chamber a coagulable fluid at the time of operation. Fibri appears in the pupillary area from the coagulation this fluid. Later, new connective tissue replaces th fibrin.

3. The *prevention* of secondary cataract in the ra bit may be secured by performing a quick operatio closing the scleral or corneal wound with sutures, an restoring the anterior chamber with normal salt s lution.

The studies recorded in this paper have been limite to the rabbit, and, while they afford a strong presum tion that secondary cataract in man also is due to new formation of new connective tissue in the pupilla area, this can be definitely determined only by the stu of human material. This study is now under way.

EXPLANATION OF THE FIGURES.

FIG. 1.—The eye was enucleated sixteen days aft extraction of the lens. *S. C.* Secondary cataract. *P.* Posterior capsule. *A. C.* Anterior capsule. *L.* Re nants of the lens. *L''*. New connective tissue betwe the anterior and posterior capsule. *A. C.* Anterior ca sule. *C. B.* Ciliary body. *i.* Iris near the wound. Iris opposite the wound. *C.* Cornea. *A. C.* Anteri chamber. *W.* Region of the wound. *T.* New connecti tissue in the angle of the iris and in the region of t wound.

NOTE.—The iris near the wound is thickened a the pupil displaced upward without incarceration the iris.

FIG. 2.—A magnified portion of the secondary cat ract in Fig. 1. *P. C.* The posterior capsule, which thrown into folds. *P. P.* Pigment cells scattered amo the fibrous connective-tissue cells.

FIG. 3.—Anterior segment of a rabbit's eye twe ty-four hours after extraction of the lens. *F.* Den fibrin in the pupillary area. *F'*. Fibrin behind the iri which is of a lighter structure. *F''*. Fibrin in the ant rior chamber. *i.* Iris near the wound. *i'*. Iris opposi the wound. *C. B.* Ciliary body. *C.* Cornea. *W.* Wou of the cornea. The iris is caught between its inner li *A. C.* Anterior capsule. *P. C.* Posterior capsule.

50 EAST SIXTY-FOURTH STREET.

ACUTE TRAUMATIC PROSTATITIS OF EXTERNAL ORIGIN, INVOLVING THE BLADDER AND SEMINAL VESICLES.

By J. M. THOMPSON, A. B., M. D.,
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Nowadays, when the medical as well as the lay press appears disposed to devote almost as much space to the dangers of the bicycle as to the unwholesome and deadly effects of the cigarette, surely, in point of ætiology, this case should possess interest for some; and, in view of the attention that the pathology of the sexual apparatus has aroused of late, an inflammatory process that involves the two organs most essentially concerned in derangements of the sexual function can not be wholly devoid of interest to others.

The absence of all anomalous features in connection with the clinical history, it is hoped, will be atoned for by the peculiar character of the case in other respects, noticeably the involvement of the seminal vesicles and the circumstances affecting the patient's changes of environment, which, naturally, had a tendency to militate against him. For, when one considers that the sixteenth day after the accident (in Paris) found him a resident of London, where, after submitting to an exploratory examination of the urethra, he became the almost immediate subject of an acute exacerbation, which persisted with but only slight abatement till the 10th of October; then, resigned to Fate and Dame Nature for four weeks, he resolved to "try again," and on the last-mentioned date placed himself under the writer's care, thirty-four days after the relapse, while on the eighty-second day (less than twelve weeks) following the first manifestations of the prostatic process he was "discharged cured"; when one takes into account such circumstances, one can not gainsay that in its clinical aspects the case is unique. Furthermore, in view of the formidable character of the lesion, the other parts involved, and the jeopardous situations in which the patient was placed throughout the course of the disease, there is little doubt that the termination will be regarded as no less fortunate than exceptional.

Acute parenchymatous, or diffuse, prostatitis, from whatsoever cause possible, is a disease that is seldom met with in practice. In fact, acquaintance with its symptomatology—not to mention a knowledge of its diagnosis and treatment, especially in respect of primary and independent variety—does not appear to be held essential to a physician's working equipment, at least if the authentic and pretentious works published of late years on genito-urinary disease are to be taken as criterions of truth and of fact.

The sentiment regarding this form of the disease among genito-urinary surgeons is well voiced by Dr. J. W. White in an admirable article written in collaboration with Dr. Alfred C. Wood, and published in *An American Text-book of Genito-urinary Diseases, Syphilis, and Diseases of the Skin:* "It is possible to conceive of a blow on the perinæum sufficiently violent to affect the prostate, but such an accident must be of great rarity."

In truth, one can say it is not improbable that Dame Nature arranged to have the prostate so well hidden in the pelvic cavity and so securely guarded that it should be immune from external violence—a provision called for not only by reason of the importance of this organ to the sexual function, but especially since it was intended to serve as a protecting envelope, so to say, to the other parts of the sexual apparatus located in and underneath its structure. Unlike the other glandular organs of the animal economy, the structural makeup of the prostate is peculiarly unique and interesting, the different parts being arranged with an artistic delicacy and nicety of adjustment not found in any other organ of the body, and seemingly, too, in anticipation of faulty and clumsy manipulation of instruments on the part of physicians. In proof of this fact, one need but recall the daily hairbreadth escapes of patients from extravasations of urine and of septic material from different sources.

In parenchymatous prostatitis the glandular as well as the muscular elements are involved in the inflammatory process—a condition that of necessity must encroach upon all the functions of that organ; and, in view of this fact, one can understand why the ejaculatory ducts and that part of the deep urethra contiguous to the ducts should be affected. Extension into the bladder, when the prostatic urethra shares in the process, is one of the most likely complications, but extension into the seminal vesicles is decidedly a rare exception. Simple and multiple abscesses form by the locking up of purulent material, which has no means of escape in some cases.

The patient, whose case it is the purpose of this paper to consider, at the time of his accident was a single man, aged fifty-one years, of medium height, rugged build, strong, well preserved, and of light complexion. His habits have always been temperate and discreet, and, although having no particular occupation to follow, he has not been idle or inactive. Fond of exercise, he has lived the greater part of the time out of doors, and has been deeply concerned in the maintenance of a good bodily condition. Endowed with a calm and collected temperament, he has avoided many of the jars and worriments of life, and is still in possession of marked vitality and nervous force. His previous history has been excellent, beyond two or three attacks of urethritis, the last terminating in complete recovery in the summer of 1892.

After seven years' immunity from genito-urinary disease, in the enjoyment of vigorous health and of normal sexual power, on the 25th of August, 1899, he sustained a severe accident while riding a bicycle on a slightly down grade of a Parisian thoroughfare. Although circumspect and using due care, on account of the downhill course, he collided with a large paving stone and was thrown vertically into the air, striking with great violence the perinæum, which came in contact with the pommel of the saddle. Suffering much pain and being unassisted, he was barely able to reach a safe resting place, where a conveyance was ordered at once. After reaching his lodgings, the pain in the perinæum and rectum became intense, while he experienced a sense of heat, fullness, and weight in the region of the bladder and along the floor of the urethra. Micturition soon became urgent, frequent, and painful; and defæcation also, but to a milder degree. Bodily movement caused an exacerbation of pain, and even the sitting posture proved uncomfortable.

The second day found the patient practically incapacitated; the subjective symptoms were more marked, micturition in particular became uncontrollably urgent, while tenesmus and hæmorrhage at the end of the act were now prominent symptoms. At this juncture a physician was summoned, and the patient was examined with a view to ascertaining the exact nature and extent of the traumatic process. The perinæum, which showed no evidence of laceration, was found to be tender and painful to touch. Careful rectal examination with the forefinger—almost unbearable as it proved to be—found the prostate to be enlarged, hot, and extremely painful to the slightest pressure. At once he was put under the indicated treatment, which consisted of absolute rest, bland diet, and compresses to the perinæum. Simple and expectant as this plan of therapy purported to be, improvement followed, so that by the fourth day no signs of hæmorrhage were visible, but a mucopurulent discharge appeared at the meatus.

The patient's condition evinced no appreciable improvement for several days following the subsidence of the hæmorrhage—in fact, it remained virtually *in statu quo*. Dissatisfied, yet hopeful of better days, he resolved to repair to London, where, on the 10th of September, he consulted a specialist, whose name it seems best to withhold at present. Despite the fact that the traumatic process was now of only fifteen days' duration, the London physician, probably assuming the patient's objective symptoms to be a criterion of the subjective signs, at once "sounded" the urethra, finding (?) a stricture in the prostatic portion. After rendering a favorable prognosis, to the effect that a few days would tell the story of complete recovery, he resolved upon an expectant plan of therapy, and requested the patient to return within a week.

One who has had the management of a case of acute prostatitis need hardly be told why the patient did not "return within a week," and why "sounding the urethra" proved the signal for an acute exacerbation, with a return of all the original symptoms, including hæmorrhage. At this time priapisms at night occurred, and, naturally, added fuel to the relapsed flame. Strange to say, seminal emissions were absent.

Frantic and disheartened, he resolved upon securing a passage to America on the first steamer sailing. Accordingly, he hastened to carry out his plan, in which he succeeded, landing at Boston on the thirteenth day of October.

On the day of his arrival—seven weeks since the accident occurred and four weeks after the onset of the acute exacerbation—he was examined by the writer. In this connection let it be said that, in point of time, one should expect the patient to be passing through the subacute stage. In point of symptomatology, however, he was the subject of a disease in its most acute stage. Without enumerating the various symptoms, suffice it to say that the clinical picture was an aggravated form of what obtained on the second day, and presented in full above. Furthermore, in addition, the writer found marked constitutional symptoms, such as depression of spirits, absence of sexual ardor, and indifference to female society. Despite his usually vigorous condition, he was now much debilitated, the external genitalia were noticeably relaxed, while neither natural nor reflex erection had occurred for several days. There was occasionally lancinating pain along the left spermatic cord and in the left testicle, while the neck of the bladder and rectum felt as if they were holding "a lump of lead." The bowels were inclined to constipation, and defæcation was invariably painful. The nervous system appeared somewhat deranged, sleep more or less disturbed, and appetite indifferent. There was a slight mucopurulent discharge from the meatus. Digital examination per rectum (almost unbearable) found the lateral lobes of the prostate much enlarged, indurated, hot, and painful to the slightest pressure; the middle lobe and both seminal vesicles were slightly enlarged, resistant, and tender to the touch.

Uranalysis.—The urine, voided in three glasses, was very cloudy in the first portion, moderately cloudy in the second, and extremely cloudy in the third. The first and third portions contained clumps and shreds. Micturition was urgent and precipitate at the start, but at the end was sluggish and dribbled, accompanied by intense pain and tenesmus.

Treatment.—As stated above, the patient was seen first on the 13th day of October. Fortunately, he was prepared and willing from the start to pay strict attention to treatment, which he carried out to the letter. He was seen every other day while the acute symptoms were present, and as often as seemed necessary during the declining period, till the 15th of November, when he was discharged cured, and the urine was found normal in every respect, and contained no *Tripperfaden*.

The following points were observed in the management of the case, and, as the patient was completely resigned to his fate, there was no obstacle in the way to antagonize the employment of any therapeutic measure that seemed indicated from time to time:

(*a*) To keep the urine acid, dilute, sterile, and free from all irritating properties.

(*b*) The maintenance of physical and mental rest as far as possible, and especially to hold in check sexual ardor, every precaution being used to prevent erections, even reflex.

(*c*) Scrupulous regularity enjoined in respect of daily mode of life; no exercise; no alcoholic drinks; simple diet—practically milk and light broths—while the acute stage lasted; digestion and bowels to be kept normal, and a hot bath taken at night to insure proper functional activity of the skin.

(*d*) No food or drink for two hours before going to bed. Light clothing at night and room well ventilated. Patient to be seen regularly, preferably in the morning, and the urine examined at each visit.

(*e*) Simplicity in medication, strict avoidance of local treatment where possible, and the postponement of exploratory examinations till they could be carried out without causing pain or discomfort.

(*f*) Stripping, vesical and urethral irrigation, and local therapy in any and every form withheld till absolutely called for, and till such time as it was possible to employ them with impunity and with hope of assured benefit.

Patients are likely to be more intelligent than physicians imagine; at all events, it is a good plan for the physician to appear to realize this fact, especially when a patient is under treatment for disease of the sexual organs, since to be assured of the patient's confidence and interest in the treatment mapped out not infrequently forms the secret of success.

In this case the patient understood and appreciated the necessity and value of observing the precautionary measures, which he carried out faithfully, besides partaking of the following, which were ordered at the start:

℞ Tinct. hyoscyami .... ʒiv;
Ext. pichi fl. (P., D., & Co.)...... ℥j;
Ol. gaultheriæ .... ♏xlviij;
Aquæ dest .... ad ℥iij.

M. Sig.: A teaspoonful in half a glass of water every three to four hours.

℞ Urotropin .... gr. cl.
Divide in compressed tablets No. 20.

Sig.: One tablet two hours after food three times a day, followed by a glass of water.

Discharge is not necessarily a symptom, but, since it was prominent in this case, when the vesical irritability began to abate, the formula of Dr. J. W. White—the compressed salol capsule of Parke, Davis, & Co.—was ordered after each meal and at bedtime. Later, when micturition appeared about normal, sandalwood oil, in ten-drop capsules (combined with two drops of the oil of wintergreen), was substituted after meals and at bedtime.

By the end of the third week the patient showed considerable improvement. There were no bladder symptoms, the urine was no longer cloudy, but Fürbringer's comma-shaped shreds could be seen in the second glass. He complained of nothing except a weight and fullness at the neck of the bladder and in the rectum, particularly when at stool.

As digital exploration of the rectum was still somewhat painful and disagreeable, it was thought advisable to irrigate the deep and anterior urethra. The urotropin and capsules were still continued, and irrigations of permanganate-of-potassium solution (1 to 5,000, and increased to 1 to 2,000) employed daily. Besides the irrigations morning and night, the patient injected about eight ounces of hot water into the rectum and retained it for five minutes. This, with a hot Sitz bath at bedtime, afforded much relief. In four days the urethra was quite free from discharge.

During the last twelve days of treatment (November 1st to 12th) every fourth day stripping of the prostate and vesicles was gently employed, with satisfactory results.

A word must be added regarding the importance of enjoining upon the patient the advantage—in truth, the necessity—of rest, simple yet nutritious diet, and abstinence from sexual excitement. These three factors really determine the duration and character of a case, as well as the outcome. The first and third are entirely under the patient's personal control, but the second—diet—must be regulated by the physician, and should be made simple and bland. Animal food should be reduced to a minimum, and the diet consist mainly of proteids, such as milk and broths, carbohydrates, and starches. As the majority of patients suffer from impaired digestion, especially in respect of the amylolytic function, induced to a great extent by the resinous oils, this fact must not be passed over lightly. To eliminate the starchy foods would be equivalent to cutting off the most essential constituents of the diet. Fortunately, however, the difficulty can be overcome by the aid of concentrated extracts of malt, which, in view of their diastatic properties, assist in the process of digestion within the alimentary canal and enable us to administer the starchy foods necessary to the animal economy in a predigested form. Liquid malt extracts are to be avoided, however, since they contain alcohol and do not differ materially from malt liquors. Malt essences and elixirs, attenuated as they are, also contain a large percentage of alcohol to insure preservation; and the physician need hardly be reminded of the irritative effect of alcohol on the mucous membrane of the genito-urinary tract. During the declining stage of this case the patient used a concentrated form of malt extract known as maltine, preferred on account of its nutritive constituents—wheat, barley, and oats—cereals which, in relation to their waste residue and capacity for producing work, surpass all other kinds of food.

At the approach of the subacute stage of vesico-urethral inflammation, the resinous oils—copaiba, cubeb, santal—are specially appropriate. A particularly happy and efficacious formula is that (above mentioned) of Dr. J. W. White. It is prepared by many different pharmacists and manufacturing chemists, but not always correctly. It should be observed, therefore, when prescribing this in capsule form (which is to be preferred), that the pepsin (one grain) is required to be incorporated in pill or tablet form with a coating of salol or of some similar material that is not soluble in a mixture containing any of the gastric ferments; otherwise the gelatin from which the capsule is made is likely to be digested, thus permitting the contents to escape. When made according to the formula, this capsule should contain oleoresin cubeb, five minims; parabalsam copaiba, five minims; salol, three grains and a half; pepsin, one grain. The salol and pepsin are combined into a solid pill-like mass, the former serving as a coating for the latter, which has no effect upon phenol salicylate and is thus prevented from acting on the gelatin envelope. The pill mass can be seen through the transparent gelatin in the oily contents of the capsule.

Concerning a case of this kind the writer is disposed to believe that, when possible, the patient should be under observation for some considerable time after treatment has been stopped, in order to ascertain the condition of the sexual function—which, at the age of fifty-one especially, should not be regarded as proof against impairment, one of the most likely to result among the various sequelæ associated with disease of the prostate.

Prognosis.—When one takes into account the morbid anatomy of an acutely inflamed prostate due to external violence, especially when the deep urethra, bladder, and seminal vesicles are involved, one can not fail to appreciate the serious nature of the process, the strong probability of abscess formation, urinary suppression, and extravasation, not to omit septic poisoning. Furthermore, it is not strange to find some permanent anatomical or physiological defect following the disease.

In every case of parenchymatous prostatitis the prognosis should be guarded, and particularly for the reason that, unless the most scrupulously watchful treatment is employed and strict obedience to both the spirit and the letter of therapy followed on the part of the patient, detrimental results must necessarily accrue.

Ætiology.—The more frequent form of acute prostatitis is that in which the inflammation affects chiefly the follicles, and, no doubt, this variety exists oftentimes in connection with urethritis, but is overlooked. Other causes are prolonged exposure to cold and wet, extension from contiguous organs, calculus lodging in the prostatic sinus, and acute febrile disease. Next to urethritis, the chief causative factor, should be mentioned septic sounds, catheters, and other urethral instruments—in fact, septic instruments in the hands of the unskilled and careless, when used in an indiscreet and untimely manner, generally do start up acute prostatitis; stricture anterior to the ejaculatory ducts, by producing an inflammation that in time extends back to the prostate, is an occasional cause; strong injections, when allowed to pass the compressor urethræ, intentionally or accidentally; agents used in topical applications; medicated urethral pencils or suppositories; accidental injuries during operations on neighboring organs.

The above are what constitute the principal causative factors of acute follicular prostatitis, which, of course, may develop later into the parenchymatous form, in which the symptoms are very similar, but more pronounced, and more frequently productive of abscess. Whenever the latter occurs as a primary and independent disease, however, as in the case reported, the cause will be found in some form of external violence.

Addenda.—In all acute inflammatory processes located in the deep urethral region, generally one can make a diagnosis that is both safe and accurate, at least for all practical purposes, at the patient's first visit, from physical signs and uranalysis, including a microscopic test of the urinary sediment, whenever it becomes necessary to have additional and confirmatory evidence. Fortunate it is, too, that such is the fact, since in the majority of cases rectal exploration during the first few days is likely to prove detrimental to the patient. But as soon as his condition permits, digital exploration of the rectum should be carried out, for it enables one to ascertain the seat and extent of the pathological process. The principal advantage afforded by this means is in obtaining a specimen of the inflammatory product for microscopic examination, and in removing that product completely by massage, or "stripping," so called.

On the fourth day the condition of the patient was sufficiently improved to permit resorting to the "expression test." A specimen of the prostatic and vesicular products as soon as obtained was prepared in the usual manner for microscopic test. The result was satisfactory and quite confirmatory of the diagnosis made at the time of the patient's first visit.

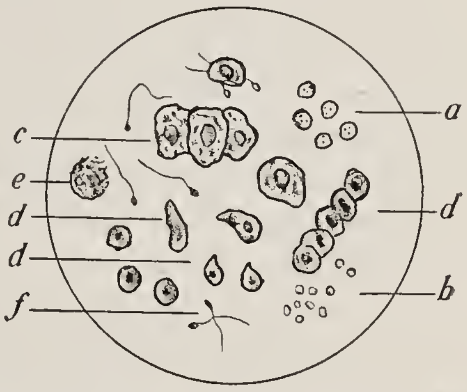

Diagram I.—(*a*) Pus isolated; (*b*) blood; (*c*) bladder epithelium; (*d*) round, caudate, vesical neck and prostatic cells; (*e*) spermatic cell; (*f*) spermatozooids. (Author's case.)

The diagram below shows the result of a microscopic examination of the secretion obtained from the "expression test" applied a few days after the above. The urine containing the expressed prostatic and vesicular products was allowed to stand about eight hours, however, before a specimen was taken for microscopic test, and the effect wrought will be observed in the additional elements present in this (No. II) and not found in No. I.

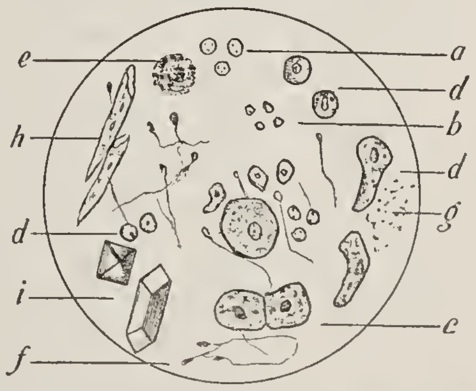

Diagram II.—(*a*) Pus isolated; (*b*) blood; (*c*) bladder epithelium; (*d*) round, caudate, vesical neck and prostatic cells; (*e*) spermatic cell; (*f*) spermatozooids; (*g*) spermatic granules; (*h*) Böttcher's crystals with spermatozooids adherent; (*i*) calcic oxalate. (Author's case.)

Rectal Exploration.—The most convenient and satisfactory method to employ in examinations of the rectum is to have the patient bend forward, with the arms extended and hands resting on the seat of a chair, at an angle of nearly ninety degrees. The legs should be separated, the feet forward and firmly placed on the floor about twelve inches apart. The physician should be seated on a chair, behind the patient, at a distance convenient enough to pass the forefinger of one hand into the rectum, and to enable him (when necessary) to pass the other hand around the patient's body for support, or for exerting counter pressure. Inasmuch as patients invariably have a tendency to stop respiratory movements and to strain, keeping the rectal muscles tense, thus obstructing the passage of the physician's finger during the exploration, it is advisable to suggest the necessity of keeping up normal respiration and of preserving muscular relaxation. The forefingers of both hands should be used in every case—the right in examining the right side of the rectal cavity, the left in examining the left side. As a rule, "stripping" should be done every four days. Some patients, however, are benefited by repeating the operation every third day.

Even in the most favorable cases the seminal vesicles are difficult to reach; hence, patients should be reminded at each visit of the advantage to be gained from a full bladder, while the physician should bear in mind that only enough urine is to be voided before "stripping" to serve for comparison with what the patient voids after the operation. Some patients will require every means of assistance possible, and there is nothing that will prove more serviceable than cold water. From one half to a full pint should be injected slowly into the rectum and retained for several minutes, and the external genitalia can be sprayed or douched, or cold compresses applied. This remedial measure should be repeated each day, preferably in the morning. Experience has found, however, that the best results follow the cold plunge bath, and unless there is a contraindication, which the physician and not the whim of the patient must determine, no patient should fail to enjoy the incomparable benefit to be derived from this form of hydrotherapy. In deranged or impaired sexual function, the physiological defect to overcome is, in reality, sluggish or insufficient blood supply to the sexual apparatus, and to those whose habits are of a sedentary nature and occupation indoors, the morning bath, especially when combined with a daily walk in the open air, can not be equaled as a means of restoring normal circulation and of preserving a good bodily condition.

The "phosphaturia" that accompanies and follows many cases of inflammation of the prostate is likely to prove very annoying if not watched closely. It occurs generally in patients of neurotic temperament and in those who are much debilitated during the declining period. One should be careful not to confound it with "prostatorrhœa," a term applied in prostatitis to pronounced or excessive secretion. The latter will be found in a globular mass floating just below the surface of urine that has been standing for some time. This mass has a cloudy look, assuming the form of a balloon or hornet's nest, and appears to be suspended from the surface of the urine in which it floats. Phosphaturia, on the other hand, occurs in a neutral or alkaline urine, which it renders murky. Phosphaturia represents an excessive amount of tissue metamorphosis—wear and tear of the nervous system, so to say. Unlike prostatorrhœa, it does not cohere in a globular mass, but as soon as the urine is allowed to stand it sinks (to the bottom) at once in flakes. In an eight-ounce graduate the phosphatic secretion will reach the bottom in thirty minutes, leaving a clear supernatant fluid. A urine rendered cloudy from phosphaturia will become perfectly clear, and remain so, if a few drops of acetic acid are added. Both may, and usually do, occur together, but should be treated along entirely different lines.

Phosphaturia may result from the prolonged use of alkaline mineral waters, or from the ingestion of antacids, like bicarbonate of sodium. Furthermore, if allowed to continue, it may give rise to a vesical catarrh, or to what the writer took occasion in a former paper to call "phosphatic urethritis."

The ingestion of vegetable acids, and of hydrochloric, acetic, or phosphoric acid, will cause a rapid disappearance of the cloudiness. One point should be borne in mind regarding this phenomenon—namely, that it may be absent up to four or five o'clock, when it is more likely to occur. In view of this fact, patients should be recommended to ingest acids an hour at least before the phosphaturia is expected to appear in the urine.

THE IDENTIFICATION OF THE BLOOD OF INDIVIDUALS.

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It is not my intention to write a thesis with the structural individuality of the blood for a text, but to make note of certain facts of primary importance in forensic medicine, be the clinical value more or less.

All who have studied the literature of this question, or indeed of that concerning the structure of the elementary masses of the blood, the most important tissue of the human body, must have been impressed by its negative character. It has been recognized for a relatively long time that human blood could be certainly distinguished from that of any other mammal by the size of the red cells; but the related proposition, that the blood of one human being could be distinguished from that of another, provided the inquest is sufficiently extended, has not received the attention the question merits.

Nor do I intend to defend with ink a proposition which can be properly defended only by ocular demonstration, but to set forth the basis by which the proposition is sustained, and the method by which the value of the suggested procedure can be determined, a procedure which has given surprisingly satisfactory results in the experiments made.

Technical Procedure.—In making these examinations and comparisons for any purpose, simple scientific research or forensic inquiries, absolute uniformity must be the rule, not the exception. In the greater number of cases the blood will, of course, be coagulated in some fabric, probably of cotton; but, in whatever fabric it is coagulated, pains must be taken to obtain test samples coagulated into the same fabric, or into one as nearly like it as possible. Having obtained the stains, the next step is the isolation of the corpuscles. This is accomplished in the most satisfactory manner by soaking the clippings in a solution of common salt and washing soda in water ($NaCl$ and Na_2CO_3, each one gramme, H_2O; two thousand cubic centimetres). Twelve hours is ample time—less will usually serve; but for uniformity say twelve hours. The detail of the process is surely known to every one. If a centrifuge is at hand, it will save time in parting the suspended corpuscles from the solution, no large amount, employed, of which one cubic centimetre for each square centimetre of the fabric is usually ample. When fully precipitated, the corpuscles must be parted from this fluid by washing and decantation. The washing should at first be done with one-fifth-per-cent. HCl, afterward with H_2O to remove the last traces of acid. When this is removed, the water must be replaced by artificial serum. The most satisfactory is 2.5-per-cent. Kuehne's solution of iodine in albumen water. The amount of the serum finally left on the corpuscles may well be one cubic centimetre for each square centimetre of the stain. If this proves too rich in corpuscles, it is easily diluted by adding more serum. Bring the mixture into the slide of the blood counter and make count of the blood bodies; if they are about as numerous as those present in an ordinary blood count, proceed with the measure; if too numerous, dilute further and try it again.

The question of the eyepiece micrometer becomes important here. The best one is the Zeiss No. 30; with the oil immersion $\frac{1}{12}$ this gives all the amplification needed. The easiest method is to follow the order used in counting. A mechanical stage is an absolutely essential aid in this task.

Details of Measure Making.—The chief difficulty in bringing into its just place this important line of investigation is its peculiar character. Despite the excellent instruction of American medical schools in histology, there is so little importance given to the practical use of the micrometer that but few microscope outfits purchased contain it, and those purchased are relatively inefficient. The technic of this instrument having thus no canonical use-method, each purchaser learns to use it by and for himself, as it were, privately, and consequently there is no custom-sanctioned method of making measurements of the blood bodies. This requires that some definite scheme of work must be adopted by those intending to enter this field if the data obtained are to meet the conditions which alone will make them acceptable to those whose duty it would become to criticise the results in the courtroom at the bar. A uniform method of reporting the measures is also demanded.

The sources of error in reporting these measures are not many, and all vanish if a little care and a conventional method of making the observations can be impressed upon investigators. The sources of error may be entitled (*a*) the instrumental difficulties, and (*b*) the observational difficulties. Taking them up severally for discussion, instrumental difficulties first, one may begin with "discrepancies in micrometers." It is manifest that the measures will ultimately be expressed in some unit, probably the micron (μ), the thousandth part of a millimetre. The micrometer eyepiece, using a two-millimetre objective, or its approximate equivalent, will readily give a reading answering to 0.1 μ, and therefore one would say the data would easily enough be got. But it is not so. The micrometers of the different makers, "stage micrometers," do not agree in the spacing, and the ruled lines are too heavy and of irregular width; therefore an instrumental equivalent equation becomes a factor at the instant. To test this question, three stage micrometers were purchased, careful measurements were made, and the three were found to give variant values in terms of the eyepiece; another was invited to make a series of measurements, and the result was six values for this ocular; but, when the existence and the value of the personal equations were established, the three measure files, A, B, and C, could by these corrections be made to correspond to the three D, E, and F. But the correspondence was in pairs; the micrometers could not be reconciled.

It follows, therefore, that in any investigation all the oculars used must be standardized by the same stage micrometer and the personal equations determined.

So much for the instrumental difficulty. The difficulty arising from "personality" may be met in the same way, by making measurements of a standard micrometer or, better, a diatom test-plate and discussing the data obtained. In this way it will be found that the values arrived at by independent workers will agree as closely, and the accuracy and certainty of the work as demonstrably, as do those of astronomers, and by like methods of examination.

These two sources of error having been eliminated, there is no reason for refusing the fullest acceptance of the results obtained. No matter how many series of measurements are made on the same blood sample, if they are honestly and carefully made, all discrepancy will disappear when the proper corrections are applied, leaving the personality of each individual sample examined clear and unmistakable. The reliability of measurements as such having been established, the relation of this method to the identification of the blood can be considered.

It may be taken for granted that every one who uses his microscope knows, at least in a casual way, that the sizes of the red corpuscles are various. This fact will be most impressed upon the minds of those who make blood counts most frequently, because the alterations in diameter produced by the processes employed in making the "fixed mounts," and also in their shapes, render their differences of no value in the premises, and such changes are instinctively recognized as a "manipulation-result." But, while this variation has probably been noted by hundreds of men, few have taken the trouble to bring these variations into orderly statements; this is due maybe to the time required, maybe to the already mentioned lack of a micrometer at once cheap and perfectly reliable, to be used as an ocular. On the other hand, it is to be noticed that the variation was early noticed, and in the classical measurements published, say a quarter of a century since, such a classification is made. A number of "determinations of the sizes of the blood corpuscles" have been published in which the fact of the variation is noted and the number of corpuscles between the arbitrary limits is stated. The distance between the arbitrary diameters used for classification is too great and the distinct individuality of the blood samples probably failed to suggest itself.

It would be difficult to say when the possibility of distinguishing the individualism of the blood suggested itself to me: it rather grew up, unperceived, until the fact was so plainly demonstrated that I had no cause to question its justness. I had been making routine measurements in a few samples of blood, measuring and recording the diameters, for nearly two years, when I happened to make a series of comparisons, and noted that the average number of corpuscles of any given size was practically identical throughout each individual series. All samples were from the blood of adults (men), and the individuality of each one was unmistakable and unquestionable. This set my curiosity on edge and I began measuring, as well as counting, the blood bodies as opportunity came to me.

My first experience may be briefly stated as follows: During the two years I measured some thousands of corpuscles belonging to the three persons under observation, and when the results were discussed the conclusion was too obvious to be disputed. While the measures were simply lists nothing was noted, but when they had been plotted into curves they became susceptible of comparison, and then no one could deny two facts: First, that the curves, representing each one set of the measurements, could be classified in no way except as three groups; second, that while in no case were all the curves in one group identical, the differences were quite insignificant when compared with the average curve of that group, and the differences between the averaged curves was marked indeed. Since then I have extended my study, and I am perfectly satisfied that by persistent effort in the premises (the task is both interesting and tedious) any skilled worker can say positively, This curve belongs to Case A's group, this to some other.

General Result.—The summation of all the studies may be stated thus: The measurements of the blood of children show variations large in amount and not easily explained; there is no order in the changes, but in practice the result is as follows: Beginning in a child two years old, the variations became distinctly less during the time he was under observation. About twenty satisfactory counts were made, covering about one thousand corpuscles each, and each corpuscle was measured. In a boy of twelve years the variations were very small; as between two boys of this age, there was no question of the identity of any specimen examined. I obtained one very irregular set of curves from a girl of fourteen years, but the individualism was distinct. These cases were under observation for about two years, and I also measured the blood corpuscles of a number of adults, about thirty individuals in all, and every one showed a curve distinctly his or her own.

The Degree of Certainty Obtainable.—From my experiments it seemed quite certain that a blood stain can be positively identified as belonging to the same blood as another given stain or as not so belonging. In practice the question will usually take the form of a strictly limited inquiry, "Is the blood of this stain the same as the blood of that one?" or, "To which of these various blood stains does the blood of this stain correspond?" To both of these inquiries positive answers can be given. Within limits, the expert can say positively, "The blood of stain A is *not* the same as that of stain B"; or he can say, "It is my opinion that the blood of stain A is the same as the blood of stain B." An expert would undoubtedly be justified in swearing positively to answers in these forms given.

If there was a distinct unlikeness, the curves could not possibly be those of the same blood. If the curves were sensibly identical, the logical certainty might be said to justify a declaration of fact. But it would be better to content one's self with an opinion; but this may be changed to a positive statement by the process of exclusion. If a number of samples are furnished, the question takes on the second of the forms given above. "This blood corresponds to sample *x* of the series submitted," becoming in turn the answer, or it may be, "It corresponds to none."

An Experimental Test.—An experiment was made to test the facility with which the examinations could be made. Four handkerchiefs were stained with blood. On each the stains were small—a few spots as large as "nickels." The kerchiefs were numbered. It was stated that the blood on one was known to the examiner, but the others were strange to me. It was demonstrated by the curves that No. 1 and No. 4 belonged in all probability to the same person, that No. 2 and No. 3 belonged to other persons, and that No. 3 was the sample which I had studied.

From my studies there seems to me to be no reasonable doubt that an experimental study would justify any skilled person in making oath to the results of his study as facts, and in so stating his opinion on the identity or the non-identity of the blood staining fabrics of the same sort under the conditions indicated. In the case of a demonstration to a jury, the method and its value are easily explained either by diagrams or by the use of the projection apparatus. It must be remembered, however, that the fact *that two specimens are not identical is more easily and convincingly demonstrated than the opposite.* In the use of the prosecution these methods would be important as affording a means of overthrowing a statement made by the defense—for example, that the stains were those of the blood of the defendant himself. On the other hand, it might be useful in showing that certain stains were not made by the blood of the alleged victim. The declaration of identity by the expert will for some time to come be regarded less as the statement of a demonstrated fact than as an "opinion," and will perhaps be met by adverse "opinions" without the open statement of the reasons on which the opinion is founded. This method of stultifying a witness could not be used when his evidence took the form of a demonstrated difference between two specimens.

In any event, an interesting line of study is opened up, the full value of which I believe can only be tested by time and the industry of a number of persons; but all who may enter the field must remember that all work with inferior instruments—anything less perfect than the best—and without the determination of all personal equations, both in instruments and observers, and the corrections therefor is time and trouble worse than wasted.

A CASE OF TYPHOID FEVER PRESENTING SOME UNUSUAL FEATURES.

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I was consulted by Mrs. M. T. C., aged fifty-two years, at my office in the afternoon of August 27, 1899, for "sinking" and "fainting" spells, and elicited the following history:

Menses had been growing increasingly irregular, both as to periodicity and quantity and quality of discharge, for the past three years, and during this time she had suffered also with slowly increasing intensity from the ordinary neurasthenic phenomena of the menopause. Three months previously her oldest daughter, to whom she was devotedly attached, had died, and the nervous shock consequent upon this event, together with the physical exhaustion due to loss of sleep, etc., while nursing the victim through her illness, had aggravated her symptoms until they had become intolerable. "Hot flashes" were incessant and followed by extreme prostration. She had sustained several of the above-mentioned attacks of syncope, the last having occurred while she was in a haberdasher's establishment a week before her visit to me and lasted half an hour. This had frightened her so that she did not dare to go out alone, having frequently been obliged while on the street to stop and grasp the nearest fence for support because of the intense weakness by which she would be suddenly overcome. She had begun to fear that she would die in one of them. She was very irritable, nervous, and melancholy.

About twice a month she suffered for a day or two with dull frontal or occipital headache, which did not seem to have any connection with the menstrual date. No vertigo except with syncopal attacks. Every two or three days she was nauseated for an hour or two in the morning after rising from bed. Her feet never swelled. Unlike the vast majority of these cases, she slept well and soundly, but awakened nearly every night once or twice to urinate. Appetite had been poor for six months, but bowels were fairly regular.

She was the mother of seven children. After the birth of the sixth, twelve years previously, she became septic, and the acute illness lasted three months, and ever since then there had been constantly present slight backache and dull aching with soreness upon pressure over the left Falloppian tube. The local pathology had twice broken out into a frank peritonitis in the interval. Heart and lungs were normal. Pulse, 80; respiration, 19; temperature, 98.6° F. Urine was yellow in color, exhibited specific gravity of 1.020, and contained no albumin or sugar.

I diagnosticated climacteric neurasthenia, put her on a mild tonic treatment, recommended rest and quiet, and requested her to call again in a week.

I was called to see her at her home three days after, on August 30th, and found her in bed suffering with severe cramps and cutting pains all over the abdomen, but mostly on the left side, which had commenced twenty-four hours previously. She was excessively prostrated, face darkly flushed, and tongue covered with thick yellow fur, but not tremulous. Her bowels had not acted for two days and anorexia was complete. She was very thirsty. Her knees were not drawn up except during cramps. There was no cough, nosebleed, or headache, but she was retching and vomiting at short intervals. There was no vaginal discharge. Palpation showed tenderness all over the abdomen, but most marked in the neighborhood of the left Falloppian tube. Pulse 84, full, and of good tension; respiration, 18; temperature, 102.2° F.

I decided that I had to deal with some acute abdominal infection, but whether it was typhoid fever or peritonitis, from that old tubal focus, or appendicitis, I could not determine.

Militating against the typhoid hypothesis were the facts that developing typhoid is rarely accompanied by pain, except dull headache—and no headache was present—and very rarely indeed by severe pain in any locality, whereas this patient was suffering acutely; the bowels are ordinarily open in typhoid, while in this case they were decidedly constipated. Slight cough, with some bronchial râles, are also usually present in typhoid, but nothing of the sort obtained here; the temperature of early typhoid is ordinarily low, advancing slowly and progressively a little higher at corresponding hours of successive days, whereas three days before this patient had no excessive temperature, and to-day it was 102.2° F. Neither was there any gurgling in the right iliac fossa; but this condition I have ceased to regard as of value in the diagnosis of typhoid, having seen many cases in which it was not present, and many cases of other disease where it was very much in evidence.

On the other hand, the symptoms were such as are encountered in acute peritonitis, except that the respiration was not accelerated, and the history of chronic tubal pathology gave my mind a strong bias in that direction.

Appendicitis occurred to me because of the sudden rise of temperature, the vomiting, and abdominal symptoms. The point of greatest tenderness, to be sure, was on the left side, whereas in this disease we expect to find it on the right; but cases are on record where this anomaly obtained, and in this patient McBurney's point was tender in common with the rest of the abdomen. No tumor was discernible anywhere.

I prescribed a milk and fruit diet, hot applications to the abdomen, and magnesium sulphate in fifteen-gramme doses every four hours until the bowels moved, and saw the patient again at ten o'clock in the evening. At this time her condition had not changed except that the abdominal pains were somewhat worse. Pulse 88, temperature 102.4° F. Although four doses of magnesium sulphate had been administered, her bowels had not responded. I directed that one more dose be given in the morning and followed by an enema if no movement resulted.

August 31st, 12 M.—Patient had passed a restless night, but, aside from this, her condition was practically unchanged. Bowels had not been moved by the salts and an enema was given, bringing away a large quantity of semifluid, dark, tan-colored fæces. The pains in the abdomen persisted, but the nausea had subsided. Pulse, 84; respiration, 18; temperature, 102.4° F. Same day, at 10 P. M., pulse was 84; respiration, 18; temperature, 102.2° F.

The history of the next four days may be summed up as follows: On September 1st in the morning the point of greatest tenderness had shifted to the right iliac fossa, but by evening it was again in the neighborhood of the left Fallòppian tube, and stayed there constantly thereafter. She also bled slightly from the nose, about ten drops, the attendant said, this same morning, which was the first and only nasal hæmorrhage observed during the attack.

The bowels remained obstinately constipated, requiring large quantities of magnesium sulphate to soften and pass the intestinal contents into the rectum, whence it was necessary to remove them by enema. Enemas given without previous administration of the salts were returned unpolluted. Fæces remained of a tan (not yellow) color and abdomen did not become distended. Bronchitis and cough were conspicuous by their entire absence; the pulse fluctuated between 84 and 92, was rather small, but of fair tension; temperature was at no time lower than 102.3° F. or higher than 103.5° and no regularity was observed in its range, being sometimes highest in the morning, sometimes in the middle of the day, and again in the evening. Abdominal pain and tenderness continued, though somewhat moderated by hot applications. Her favorite posture was lying on the right side with the legs drawn up. There was no headache. Patient had grown much weaker and was developing an apathetic typhoid look.

At this point I called Professor William H. Carmalt in consultation. I had abandoned my apprehension of appendicitis two days previously; but the persistent location of that point of greatest tenderness in the neighborhood of the left Falloppian tube, the persistence and acuteness of the cramps and cutting pains, the obstinate constipation, the color and character of the stools, and the entire absence of bronchial symptoms made me very apprehensive that it was a case of septic peritonitis. The pulse, to be sure, was typhoid rather than septic, as was also the temperature, which lacked the extreme and rapid variations characterizing the streptococcic curve; but it was pursuing an irregular course in so far as it did vary, and as I had attended a case of peritonitis from chronic tubal inflammation a year previously, lasting several months, which exhibited the same peculiarity as to temperature for the first week, and in which I had the advantage of counsel from the same eminent surgeon, I was fearful that operative interference would become necessary.

After thorough examination of the patient and her history, however, Professor Carmalt gave it as his opinion that the case was one of typhoid fever, and three days later the presence of the Widal reaction confirmed his diagnosis.

From this time until October 3d the case pursued the ordinary course of severe typhoid with the following exceptions: The bowels remained obstinately constipated and the color of the stools varied from dark to light tan, nothing approaching yellow being observed, and no blood or sloughs. The abdominal pains were not present except when laxatives were administered after September 8th. There was no cough, bronchitis, headache, or eruption. On September 6th the twenty-four hours' temperature curve began to assume a fairly regular course, with the maximum elevation about 1 P. M., but the variation from day to day retained its irregularity, one day running from 101° to 103.2° F., and the next day from 99.2° to 102° F., etc. The general condition and facies became profoundly typhoid. On October 16th the fever began to decline, and continued steadily so to do until October 28th, which date marked the permanent restoration to the normal point.

The treatment consisted of magnesium sulphate administered in water and lemon juice every second or third day, ten and sometimes twenty grammes every two hours until the bowels moved or until sixty grammes had been taken, followed by an enema if the rectum failed to functionate, which it usually did, a quart of milk during the twenty-four hours, and all the water and lemonade she cared to drink. Once in three or four days the saline was preceded by a course of calomel. During a period of about two weeks, toward the end of the fastigium, the patient strenuously refused the milk, water, and medicine, but craved large quantities of cold tea, which were allowed her, and the milk was not insisted upon.

Myositis, affecting the left lumbar and adjacent spinal muscles, occurred on October 4th. This was ushered in by throbbing pain in and exquisite tenderness of the parts, causing the victim to carefully refrain from any movement of the body involving the exercise of these muscles, and they were frequently in a condition of painful spasm. The erector spinæ group could be felt as a hard cord, and pressure upon them caused the patient to cry out in anguish, which would last for from three to six minutes after manipulation was suspended.

This complication was treated successively with hot applications, *baume analgésique* (Bengue), salicylates, and coal-tar derivatives until October 8th, with only the most temporary sort of effect. Late in the afternoon of this day I treated the affected parts with dry hot air at 350° F. for an hour. The patient was completely free from pain, so long as she remained quiet, in twenty minutes. She passed a quiet night, sleeping continuously except when awakened two or three times by spasm of the inflamed muscles, and the next morning, when I called, expressed herself as feeling much better. I repeated the treatment in the afternoon, as the pain was returning, and with the same result. She was so free from pain that I did not treat her on October 10th, but was obliged to do so again on the 11th. This was the end of her extreme pain, but she continued to experience tenderness upon pressure, and spasm and pain in varying degrees, but with constantly decreasing severity, upon movements of the body calling these muscles into action, until November 4th, when I gave her three treatments on consecutive days, ending the trouble for good.

Another interesting complication of this case, though not particularly unusual in protracted typhoids, was ulnar neuritis in both arms and peroneal neuritis in the right leg. It began to show itself about October 15th in the right arm, where it was severe, lasting three months and causing marked muscular atrophy; in the left arm about October 20th, not severe and lasting only one month, with but slight muscular atrophy; and in the right leg about October 25th. In this last situation it was only slightly apparent in either sensory or contractile manifestations, disappeared in two weeks, and no muscular atrophy was observable. I regret exceedingly that I was unable, through a peculiar combination of circumstances, to treat this condition with superheated air, as I have every reason to believe that the course of the trouble would have been markedly modified thereby.

The unusual features obtaining in this case are, first, the sudden rise of the temperature to the immediate neighborhood of 102° F., with its steadily sustained character and even course during the first six days, as contrasted with the ordinary morning and evening variation with a steady increase on successive days, which constitutes one of the most valuable and constant diagnostic signs of typhoid; second, the persistent and obstinate constipation as contrasted with the diarrhœa usually encountered, and which is another valuable and very constant typhoid symptom; third, the absence during the entire illness of bronchial symptoms and headache, still other very constant typhoidal indications; fourth, the atypical color of the stools, which were dark tan, whereas typhoid evacuations are almost always, even when formed, of a light yellow; fifth, the acutely painful abdominal conditions, with the location of the point of greatest tenderness in the left iliac fossa, whereas typhoid is not frequently a very painful disease, and abdominal tenderness, when present, is usually located in the right iliac fossa; sixth, the nausea and vomiting, steadily sustained during August 30th and 31st; in typhoid we commonly observe anorexia, but rarely sustained vomiting and nausea, which are strongly indicative of local abdominal pathology; seventh, the severely painful character of the myositis appearing on October 4th, which affection is not unusual in this disease, but is rarely painful enough to attract much attention; eighth, absence of eruption; ninth, the protracted fastigium, which lasted seven weeks, the whole course of the excessive temperature extending over a period of ten weeks and being the longest I ever attended, excluding relapsed cases; and tenth, and lastly, the gratifying effect of dry heat of high degree upon the myositis, which ordinary means and pain-relieving drugs other than opium and morphine had failed to relieve.

The two last-named drugs I consider it desirable to avoid as much as possible in typhoid or any other disease owning microbic ætiology, because of their markedly inhibitory influence upon metabolic activity. A patient who is overwhelmed with toxines should have his eliminative processes maintained in as vigorous and efficient a condition as possible. Again, in the particular disease under consideration one of the most efficient means of minimizing ptomaine absorption consists of freeing the intestinal tract of germ-laden fæces by saline catharsis, and opium and morphine are the most powerful constipating agents known. Hence the power of superheated air, manifested in this case, to relieve severe pain without handicapping the patient in other respects is a very comforting bit of knowledge.

The abdominal phenomena exhibited by this patient strongly indicate that it was one of those rare cases in which no intestinal lesions are present. The fact that these anomalies do occur has been said by a recent author, whose name should be a bulwark of authority, to "indicate the irrational basis on which the purgative and *miscalled* eliminative treatment rests." This conclusion is not warranted by the facts, and was probably the result of misapprehension as to what those of us who advocate this treatment expect to accomplish by its use. In order to grasp this fully, let us glance for a moment at some of the conditions obtaining in the vast majority of cases of this disease.

The micro-organisms primarily effect a lodgment in Peyer's patches, which swell and subsequently ulcerate. The irritation of the intestinal mucosa from these morbid processes, together with that due to the presence of imperfectly digested food, causes the diarrhœa. The imperfect food digestion results from impaired function of the ferment-producing glands, and this impairment is induced by ptomaines held in solution by the blood and acting upon the nerve centres controlling these organs, and the ultimate protoplasmic cells of the organs themselves. There is also reason to believe that the diarrhœa is due in a measure to the systemic intoxication, although to what extent and by what connection of events it is at present impossible to say. That it is very largely due to the presence of irritating matter in the intestinal canal, however, is proved by the marked lessening of the diarrhœa which follows saline catharsis after the effects of the salts have subsided.

From Peyer's patches bacilli migrate into other organs, notably the liver and spleen. Each one of these bacilli, whether lodged in the liver, the spleen, a Peyerian patch, or a fæcal mass in the bowel, is giving off a quantity of toxine which is absorbed by the blood and lymphatic currents, and if this saturation of the body fluids becomes sufficiently intense the vital nerve centres will be paralyzed and the patient will die. The severity of a case depends, excluding perforative accidents, upon the degree in which impairment of metabolism and sympathetic-nerve function is present, and this is directly proportional to the quantity of toxine in the body fluids: the more intense the saturation the more severe will be the symptoms. Hence it becomes extremely desirable to keep this degree of saturation as low as possible.

Repeated and systematic saline catharsis aids us in attaining this end in two ways: first, it frees the intestines from fæces, which it is easy to demonstrate are loaded with bacilli; second, by its action upon the abdominal circulation it withdraws from the blood a considerable amount of its liquid element, with which is carried out from the body just so much of the toxine as was held by it in solution while forming a part of the circulation. The place of the contaminated liquid thus removed is taken by pure water free from ptomaines, the copious ingestion of which forms a part of this treatment of typhoid, and the virulence of the quantity of toxic matter remaining is thus greatly lessened by dilution. A better condition of the organism necessarily results.

As bearing still further in this direction I quote the following from an article by F. B. Mallory appearing in the *Journal of Experimental Medicine*, issue of November, 1898: "The typhoid bacillus produces a mild, diffusible toxine, partly within the intestinal tract, partly within the blood and organs of the body. This toxine produces proliferation of endothelial cells, which acquire for a certain length of time malignant properties. The newly formed cells are epithelioid in character, have irregular, lightly staining, eccentrically situated nuclei, abundant, sharply defined acidophilic protoplasm, and are characterized by marked phagocytic properties. These phagocytic cells are produced most abundantly along the line of absorption from the intestinal tract, both in the lymphatic apparatus and in the blood-vessels. They are also produced by distribution of the toxine through the general circulation, in greatest numbers where the circulation is slowest. Finally, they are produced all over the body, in the lymphatic spaces and vessels, by the absorption of the toxine eliminated from the blood-vessels. The swelling of the intestinal lymphoid tissue, of the mesenteric lymph nodes, and of the spleen is due almost entirely to the formation of phagocytic cells. The necrosis of the intestinal lymphoid tissue is accidental in nature, and is caused through occlusion of the veins and capillaries by fibrinous thrombi, which owe their origin to degeneration of phagocytic cells beneath the lining endothelium of the vessels."

This last sentence explains how saline catharsis lessens the frequency of perforation. The "phagocytic cells," the "degeneration" of which causes the "fibrinous thrombi," are produced by the absorption of toxine, and "most abundantly along the line of absorption from the intestinal tract." Removal of the germ-laden fæces lessens the quantity of toxine to be absorbed, and hence the conditions favoring perforative phenomena are not nearly as strongly developed.

We do not claim to *cure* typhoid by catharsis and intestinal antisepsis, but we *do* claim that by preventing the entrance into the blood of a considerable quantity of toxines through removal of bowel contents swarming with their producers, and by dilution of those already in the blood through removal of a portion of it and the replacement of this portion by an element free from deleterious influences, we so lessen the patient's struggle that many a one is enabled to conquer and recover who would be overwhelmed if he were obliged to oppose the disease with its strength unabated. I can not perceive anything "irrational" about that.

So much for the theory, and now let us glance at some of the results of its practical application.

The typhoid treatment giving by far the highest percentage of recoveries in the hands of a large number of clinicians at the present time is that by the Brand cold baths, and I can not do better than to quote in this connection from Dr. John Winters Brannan's article upon typhoid fever, in the *Twentieth Century Practice*, his Personal Impressions of the Eliminative and Antiseptic Treatment of Typhoid Fever. These "impressions" are based upon a study of seventy-eight cases. It will be remembered that the average mortality under Brand's treatment when applied by almost all observers except himself is a fraction over seven per cent. "The above report and analysis of cases show, as I have already stated, that this method of treatment does not abort the disease nor does it always prevent death. On the other hand, the rate of mortality is not high, there being but six deaths in the total number of seventy-eight cases, or 7.7 per cent. The results, therefore, so far as the mortality is concerned, compare very well with those obtained by the cold-bath treatment. There was also a noteworthy absence of complications. Excluding the two cases in which pleurisy with effusion was present when the patients entered the hospital, not a single complication occurred among the seventy-eight cases. The absence of intestinal hæmorrhage in the seventy-two patients who recovered testifies strongly to the harmlessness of active purgation in typhoid fever, especially when we consider the advanced stage of the disease at which many of the cases came under treatment. In several other respects I have been favorably impressed by the treatment. In a number of the cases under my care delirium and somnolence were marked at the time of entrance into the hospital, but in every instance these symptoms subsided in a few days, quite as promptly, in fact, as under the use of cold baths. Tympanites also disappeared very rapidly, never calling for any especial treatment. The patients, in a word, did well—much better than under simple expectant treatment, and fully as well as under the Brand method, as I have seen it applied in the hospitals of this country."

We not only have here a theory which, as we have seen, is certainly not "irrational," but we have practical results which are almost identically as good as those obtained from what is generally acknowledged to be the best typhoid therapeusis, the Brand cold bath, and it is a treatment which can be applied universally in any grade of private practice, which is not possible with the Brand method.

Personally I have been using this treatment exclusively for the past six years and have yet to see my first patient die under it. I advocated it in the *New York Medical Journal* four years ago, and since then have received letters from many physicians in different parts of the country in reference thereto, many of whom report the same result of a zero mortality rate. I have before me at the present writing a letter from a physician in Vermont who has treated with it seventy consecutive cases without a single death.

In the very small proportion of cases presenting no intestinal lesions the sphere of usefulness of this method is of course lessened, being here limited to dilution of the toxines held in solution in the blood, and to the removal of the various micro-organisms normally present in the bowel, but which are capable under certain conditions of producing ptomaines very injurious to the nervous system—the colon bacillus, for instance; but it is still of benefit, and of great benefit.

Even if it were of no benefit in these cases, the very small number encountered—the recent author referred to quoted but nineteen as demonstrated by autopsy—renders their occurrence totally inadequate as evidence that the purgative treatment is "irrational" or unworthy of credit. We might as well declare that milk is an improper food for invalids because we observe that a few stomachs can not tolerate it. As we have seen, however, it is of considerable benefit even in these cases, and pregnant with much greater possibilities in the disease as ordinarily encountered.

For the Vomiting of Pregnancy.—Dr. Dudley (*American Journal of Obstetrics,* February; *Northwestern Lancet,* June 15th) speaks very highly of capsules containing cocaine, half a grain; camphor monobromide, three grains, the latter drug being added to offset the bad effects of cocaine.

THE UNREQUITED SERVICES OF THE PHYSICIAN.*

By A. NOEL SMITH, M. D.,
DOVER, N. H.

It is well known to the profession, and conceded by the more thoughtful of the laity, that there is no class of persons in the world who perform more unremunerated labor than do physicians. In many instances this fact should redound to their credit; but many other times the medical fraternity ought to be censured for having it so. No reputable physician would turn the cold shoulder of the Pharisee to the truly deserving object of Samaritan charity.

There are, however, many means employed by and through which doctors are deprived of a rightful fee, some of which I shall proceed to consider. Time would not suffice to mention all. Some of these ways and means are the outcome of custom, while others have been studiously established by the artful and dishonest designer.

The Abuse of Medical Charity.—Let me first direct your attention to the abuse of medical charity, as it occurs especially in our larger cities in connection with hospitals and dispensaries. Men and women seemingly vie with each other in the race for free medical service; while, on the other hand, hospitals too often enter upon a spirited contest with each other, and prostitute the true object of the birth of the institutions in order to secure patients.

We are told that wealthy citizens will pauperize members of their own families, for the time being, to the end that surgical aid may be obtained gratuitously. Too often a hospital official will solicit this class of patients in his zeal for the success and reputation of his hospital.

One writer well says that "these cases should be made to pay the full cost of their illness, and not have a portion of it charged to charity. Let this class of invalids know that, if they come to the hospital, it is for their convenience, and they must pay the same rates as though treated at their homes. The abuse has grown to such proportions that it must be combated at once, or the philanthropical object of the acceptance of charity cases will be defeated, and possibly with a tendency to discourage bequests looking to the comfort of the indigent sick."

The abuse of medical charity probably dates back as far as the demand for medical services. Fifty years ago, one third of the population of London were virtually stealing their medical treatment. Throughout the cities of the United States do not an equal proportion stand ready to do the same to-day? It is idle to multiply words in proof of the existence of this giant evil; everybody concedes that it has a home among us.

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* Delivered before the Strafford District Medical Society, October, 1899, at Dover, N. H., and before the New Hampshire State Medical Society, June 1, 1900, at Concord, N. H.

What is the remedy? In the first place, physicians must be honest with themselves and with their profession; agree upon and adopt some plan, and apply it equably and universally. Compel every one who is able to pay to the full, for, be as careful as we may, there will always be some to impose on our charity. There should be no compromising whatsoever.

Some three or four years ago it was decided by the trustees of a Philadelphia hospital that every patient should be admitted and treated free, with the expectation that those who could afford to pay (and many such were treated) would volunteer to do so. My informant says: "It has been a complete failure. I do not believe that we got fifty dollars from this source. It is a poor plan to publish that you have a free hospital, although I believe we ought to take care of our poor generously, but I also believe that the best plan is to make as many as possible pay as much as they are able."

The New York legislature has passed a law which is expected to regulate dispensary abuse in that State. This should encourage other commonwealths to take action. Dr. S. C. Gordon, at the last meeting of the Maine Medical Association, presented the following resolution:

"*Resolved,* That charity work for people who are able to pay should cease in the hospitals of the State."

Clergymen as Objects of Charity.—Another stream of unrewarded services, in a pecuniary sense at least, has its source among the clergy. The custom of treating gratuitously ministers and their families originated in those far-removed times when clergymen were really dependent for a living upon the charity of individuals, and upon donation parties. Those times have virtually passed away, and the clergyman of to-day will secure quite as much ready money as will the physician. No doubt the average minister is woefully underpaid. Is the average physician overpaid? One large denomination shows an average salary of $1,125 paid to its clergymen at large; in Massachusetts, it is $1,493. It is hard to convince the parishioner, toiling for $500 or $600 a year, and paying his doctor in full for services rendered, that it is just for his minister to pay nothing.

Some will argue that clergymen sink their ability in the ministry. If the same ability were put forth in some other direction or profession, the returns would be much better and the pecuniary rewards larger. But this may be said of any class of men. There is many a good lawyer among the third-rate physicians of our country, and *vice versa.* Many, through choice, or by force of circumstances, make unwise and less profitable use of their abilities. These "ifs" are the veriest nonsense. General Grant thought so when his critics claimed that *if* General Johnston hadn't been killed the Union forces would have been utterly routed at Shiloh. Says Grant in his *Memoirs:* "*Ifs* defeated the Confederates at Shiloh. There is little doubt that we would have been disgracefully defeated *if* all the shells and bullets fired by us had passed harmlessly over the enemy, and *if* all of theirs had taken effect."

In response to an inquiry made by me of a prominent Philadelphia physician,* he says: "In regard to charging ministers, I would say that I have fallen into the habit of treating them free, although I can see no good reason for it. Some charge them while others do not. I see not a single reason why they should not pay; but, after one is in the habit once, it is hard to get out of it. This is a very prolific part of your subject, and I hope you will let me have a copy of your address. You will help me and others, too, I doubt not, to throw off this pernicious habit."

Dr. H. Campbell Black, of Glasgow, says: "My distinct impression is that poverty and suffering never appeal in vain to the worthy disciple of the old man of Cos; but I distinctly fail to see why, because a man is a clergyman, he is entitled to sponge, particularly on a young and poor practitioner of medicine. Every now and again do I notice the presentation of £400 or £500 to some clergyman, to enable him to go and take a four or five months' holiday, after a series of fierce encounters with Beelzebub, or of his having a pecuniary jubilee or semi-jubilee. Of course, the money is ostensibly given to our friend the parson to strengthen the faith (and if anything can do this, money will) by a run to the 'Holy Land.'"

The American Medico-surgical Bulletin and the Cleveland Medical Gazette add these words:

"The doctor of divinity receives a gratuity unasked and is sent to the 'Holy Land.' The doctor of medicine does not get what is his due even after repeated dunning, and, should he be too persistent in his demands, he is invited to go to the 'Unholy Land,' with all the sincerity that can be conveyed by strong language."—*American Medico-surgical Bulletin.*

"The most aggravating feature in attending clergymen gratuitously is that the services are usually received with serene complacency, as quite a matter of course, and valued at about what is paid for them. If rewarded, it is with patronage of the same profitable variety; while there never was known a quack or nostrum lacking in testimonials from clergymen."—*Cleveland Medical Gazette.*

Let the medical Muse contribute her mite:

"There was Parson Browning, who had gallstones,
Who suffered 'like martyr' upon the rack,
So he said, when I dragged my weary bones
To attend him through each severe attack.
And I tried with directions kind and wise
To conquer his weakness for chicken pies
And puddings and cheeses and jams and tarts;
What a gourmand he! Well, by sundry arts,

---

* Dr. Thomas J. Mays.

And months of attention, I brought him 'round:
Gall, liver, and parson were hale and sound.
Imagine my feelings—one day I read
In the *World* a letter of warmest thanks,
As of one who had been raised from the dead:
'Twas done by the use of Professor Blank's
'Electric belt'—the writer did aver,
The writer was—my friend the minister.
He then described the symptoms he had felt,
And claimed that through it all he'd worn the belt.
When he had not worn it 'twas in the bed,
And wrought a wondrous cure, the parson said.
'Twas a gratis case, and I'd sent no bill,
I had given my work with a right good will,
To aid the truth and bring credit to skill."

It has been my own custom to charge ministers as other people, and, upon settlement, to deduct one half; but why I should do even that much is not clear to me. Do grocers and other venders of the necessaries of life furnish their commodities for nothing? I think not. All railroads used to consider clergymen; now a majority charge them the same as ordinary mortals. Let us, as physicians, keep abreast of the times, and strive, with others, to lift the ministry of our country from the ranks of seeming beggars and dependents.

Club Practice.—Another little fox that is creeping in to spoil the vines of legitimate medical fees is found in the evil of club practice. Already this is a strong and growing evil in certain European communities, and is now being transplanted into American soil. One has only to stop and think, when he will at once see the injustice, not only to other physicians, but to himself, of contracting to attend the members of any lodge, club, or sick benefit society for so much a head by the year. The practitioners who engage in this kind of business will find it to react upon themselves in a sort of boomerang fashion, as the public very soon learn to value a physician at his own price. The Syracuse Academy of Medicine will not admit to membership any doctor who engages in club practice.

General Practitioners' Relation to Specialists.—There are some who are contending that the ordinary practitioner is not sufficiently compensated in his professional relationship to the specialist, and many are asking for a division of the fee; while, in some instances, specialists stand ready to make such a division.

This is more of a family matter than the other subdivisions of my subject, and must be settled among ourselves. No ironclad rule can be adopted, it seems to me, but individual cases must be considered, and the fee question become solely a matter of honest dealing between physicians.

It might be well, as suggested by Dr. Emory Lanphear, that in every case where the specialist is to receive a large fee, it becomes his duty to ascertain if the regular attendant has been, or will be, paid for his services. But it would be unethical and lowering to the dignity of our profession to respond to the numerous bids that are being sent out by specialists all over our land to toll business their way.

The Deliberate "Beat."—There is one element in the community constantly working against the physician in the matter of his securing his honest fee, which is represented by the deliberate "beat." No word of condemnation can be too severe for this class of swindlers. We all suffer from them.

One man who had been permitted to live long enough to bring up a family of children, made his boast that he had never paid a doctor's fee in his life, although he had employed several and many times. When asked to explain, he said that he summoned one physician as long as he would come without any prospect of remuneration, and then he employed another. That there were three physicians where he was now resident. Two of these had already refused him their further services, but the third still came when summoned. Upon the latter's refusal, he should move to another town. Now this man evidently imagined that he was doing a smart, bright thing. When this unsavory class of individuals becomes known, no services should be rendered without an advance payment.

Some people pretend to be very hostile to physicians when a fee stares them in the face. However, let an opportunity present itself when they can make advice a gratuity, and it is just astonishing how quickly all hostility to medical men vanishes. I was visiting a house at one time to make an insurance examination. While conducting the same, the lady of the house put herself out to inform me that she did not believe much in physicians any way, and had no use for them in her family. Before I left her home this same woman wanted to know what was good for sore eyes! It is needless to add that no prescription was given.

Responsibility and Remedy.—Now, then, where lies the responsibility for the uncertain reward of the physician? As we have already intimated, it is divided between the public and ourselves, while the remedy rests more with us. The Golden Rule should become a more sacred thing, and should be more often observed among us. Even the humblest physicians should have their rightful fees, and their more popular and successful colleagues should assist in their acquirement. But, some will argue, *we* should get along the best we may, and let coming generations of doctors look out for *themselves*. Such action would be not only a shirking of duty, but it would be absolute cowardice. If our Revolutionary fathers were thus selfish, where would *our* liberties be? If our brothers who fought in the Civil War were thus wrapped up in self, where would the Union of States be to-day? It is our bounden duty, and it should be our highest privilege, to hand down to our professional posterity a profession as pure as we received from our predecessors.

It is no good argument that *some one* will do the wrong things, and *we* might as well. This has always been the plea of the rumseller; but it can never make wrong right. It has been said that we owe a duty to the public; but the public should be made to understand that they are under some obligation to us as well, while we must not forget that we owe something to ourselves and to those dependent upon us. We can not subsist upon charity work alone.

Under the old laws of England, physicians could not recover fees for services rendered. It was supposed that doctors worked more for honor than for pecuniary reward. However, the most noted mathematician would be puzzled to ascertain just how much honor would suffice to purchase a single loaf of bread.

This is preeminently the age of trusts and combines. Let us, as physicians, organize against those who would defraud us of our rights. United and agreed, we could sweep the evils which have been referred to from the face of the earth. This does not mean that hospitals should be done away with, and the worthy poor thrust one side; but a united and well-organized profession would legislate wisely for the benefit of the unfortunate, and at the same time protect itself.

Then, with our full duty done here in every department, we shall pass on with a clear conscience, and thus not go unrewarded in that “unknown country” toward which we all are tending.

> “The papers rave about our mission, which they call divine,
> Or deprecate our selfishness because we dare combine.
> The manna drops from heaven, they think, to feed us and our wives;
> Our business not to save our own, but only other lives.
> For it's ‘Sawbones this,’ and ‘Butcher that,’ and any other taunt;
> But in the Valley of the Shadow it's the doctor that they want.
> It's the doctor that they want, my friends, it's the doctor that they want:
> In the Valley of the Shadow it's the doctor that they want.”

ACUTE GONORRHŒAL ARTHRITIS, ETC., OF THE LEFT SHOULDER,

WHICH NECESSITATED OPERATION AND WAS FOLLOWED BY RAPID RECOVERY.

By J. COPLIN STINSON, M. D., C. M.,
SAN FRANCISCO.

HISTORY.—M. A., aged thirty-eight, contracted gonorrhœa. Urethral discharge showed itself April 20,1897. No treatment was used for two weeks after infection. Hand injections were then used. He had little or no discharge from the urethra since May 12th. About May 17th he began to have pain in the perinæum and rectum. Pain became more severe on the 18th and 19th. On the 20th he began suddenly to have a profuse discharge from the urethra. The pain in the rectum was less severe when the discharge came freely from the urethra. I was called to see the patient May 20th. He was still suffering considerably with pain in the rectum and perinæum; his temperature was 101.4° F.; there was a profuse purulent discharge from the urethra; the prostate was the size of a hen's egg, very tender, and had a sense of elasticity.

Massage of the prostate increased the amount of discharge from the urethra. I ordered anodyne suppositories and irrigations of the urethra, etc., with permanganate of potassium, warm watery solution, 1 in 4,000. The prostate was massaged on the 24th, 26th, and 28th. By the latter date the gland was reduced to two thirds its size.

On the evening of the 29th he began to have severe pain in the left shoulder. I saw him June 30th; he complained of severe pain in the shoulder; the pulse was 110; temperature, 102.5° F. Examination showed the joint to be inflamed. The shoulder and arm were immobilized. Medicines and local applications were ordered. He received, until surgical measures were used, the several medicines commended for gonorrhœal arthritis—*e. g.*, salol, quinine, phenacetine, calomel, etc.—while locally, anodyne applications, poultices, and massage around the joint with mercurial ointment were employed. The pain was severe day and night, becoming more severe as the days passed on. Morphine in one-grain doses did not completely relieve the pain, which became worse at night. On June 1st the temperature was 103.5° F.; on the 2d, 103° F. The temperature ran along between 102° F. and 103° F. till June 10th. On June 20th the pulse was 124; on the 4th it was 130. The urethral discharge stopped on this date and there was little or no discharge afterward. On the 7th the pulse was 134. On June 10th the temperature was 102.5° F.; pulse, 135; pain extremely severe day and night, and he was moderately delirious in the evenings of the 9th and 10th, and is now rather emaciated, anæmic, and careworn.

On account of the patient losing ground, the high pulse, and the severe pain, which was progressively becoming worse, I decided upon operation, which I performed June 10, 1897, assisted by Dr. George Gross and Dr. A. S. Tuchler, who administered chloroform by the drop method.

I made a vertical incision two inches and a half long from the coracoid process downward over the most superficial portion of the head of the humerus, dividing the skin, subcutaneous tissues, fascia, with blunt separation of the fibres of the deltoid, and opened the joint. About an ounce of turbid fluid escaped. It was hard to estimate the exact amount on account of the oozing. Several smears on cover glasses were taken for microscopical examination, etc. Examination showed the capsule injected, œdematous, and thickened. The centre of the head of the bone over an area of about half an inch was rough, showing some destruction of the cartilage and even deeper structures. The joint was thoroughly flushed with a 1-in-2,000 watery solution of bichloride of mercury, then wiped out with bichloride gauze. A narrow strip of borated gauze was carried to the bottom of the joint. The incision was closed at the lower angle for an inch and a half, suturing the deltoid and skin in separate layers with fine chromicized catgut.

The rest of the wound was lightly packed with borated gauze and a dressing of adhesive strips, spica, etc. applied, with immobilization of the shoulder and arm. The pain was severe for twenty-four hours after the operation. On June 12th pain was slight and the wound was dressed. On pressure, about half an ounce of turbid fluid escaped from the wound. The dressings were saturated with the same fluid. The strip of gauze in the joint was shortened by withdrawing it about half an inch, the wound was sponged out with 1-to-1,000 bichloride, and gauze and dressings were reapplied. Several smears on cover glasses were taken for microscopical examination. The discharges taken from the joint were examined by Dr. George Gross. The specimens taken at the operation did not reveal any gonococci; those taken on June 12th showed gonococci. The first specimens were very poor, as there was so much oozing at the time of the operation.

The highest temperature, June 12th, was 101.5° F. On the 13th the temperature was 100.5° F.; pulse, 120. At the dressing, on June 14th, about five drachms of turbid, thick fluid escaped on pressure from the joint. The gauze drain was completely removed and the joint washed out with 1-to-1,000 bichloride solution. Fresh gauze strips were introduced. On the 16th the wound was dressed and about the same amount of fluid escaped from the joint; pulse, 115; highest temperature, 100.5° F. On the 18th the temperature was normal. On pressure, about three drachms of cloudy fluid escaped. On the 21st about one drachm escaped. On the 24th no joint fluid escaped. The wound was healed by July 20th. The shoulder and arm were kept at rest till the discharge ceased, when movements were commenced. The sutured portion of the wound healed by primary union. The deltoid and muscles of the arm were found on measurement to be atrophied to about half their normal size. Massage and exercise were employed, and, by the latter part of July, they had regained most of their size and tone. Joint movements were commenced July 22, 1897. By the last of July the movements were about normal, except abduction and elevation of the arm. The arm could be abducted to nearly a right angle; further effort produced considerable pain. Using moderate force, the arm could be abducted to a little over a right angle, but could not be elevated. Interference with elevation was no doubt due to the presence of adhesions within the joint in the region where the head of the bone had been eroded. Inside two months, with exercise, etc., the patient was able to abduct thoroughly and elevate the arm, thus making the cure complete in every detail.

326 Kearny Street.

A CASE OF HATPIN IN THE URETHRA.

By W. LAUNCELOT BROWN, M. D.,
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Noticing an article in the *Journal* for May 19, 1900, commenting on the two cases of hatpins in the male urethra—one reported by Mr. Hawley in the *British Medical Journal,* March 17th, the other by Dr. Bonnet in the *Province médicale* for April 21st—prompts me to report my case.

The patient, Polish, seventy-five years of age, married, was admitted to Cook County Hospital, February 9, 1898, at 2.55 P. M., with the following history: He said that three days before, he could not urinate, and passed a lady's hatpin, head first, into his urethra. It slipped from his grasp and he was unable again to get hold of it. He later succeeded in passing water, but had since suffered great pain. General examination was negative. His mind was clear. In the urethra or penis behind the scrotum could be felt a hard body, which caused pain upon being manipulated. This could be traced into the bladder. Owing to the depth and extreme sensitiveness, ether was administered at once, and, after shaving and surgical cleansing, a median incision half an inch long at the base of the scrotum, directly over the point of the pin, was made, the point grasped by forceps, and extraction effected without difficulty, it being proved that the head was in the bladder.

This very small wound was simply closed by two silkworm-gut sutures, catching and approximating the walls of the urethra, but not perforating them.

Powder dressing but no drainage by catheter. He had no trouble in urinating while in the hospital, and was discharged five days later in as good health as before the accident. He had no fever before or after the operation. He could not speak English and the history was obtained through an interpreter.

Therapeutical Notes.

Subcutaneous Injections of Gelatin in Hæmorrhagic Small-pox.—Boy-Teisser, of Marseilles (*Presse médicale,* December 16, 1899; *Therapeutic Gazette,* June), recommends in the treatment of hæmorrhagic small-pox the subcutaneous injection of gelatin dissolved in normal salt solution:

℞	Gelatin	18 grains;
	Salt	18 "
	Water	2 ounces.

A Lotion for Diabetic Pruritus Vulvæ.—Lutaud (*Journal de médecine de Paris,* June 10th) gives the following formula:

℞	Boric acid	750 grains;
	Sodium biborate	75 "
	Distilled water	1 quart.
M.		

The Pulverization of Mercury with Turpentine.—M. R. Loza (*Gaceta Medica,* May 15th; *Journal of the American Medical Association,* June 16th) says that if turpentine is put into a bottle with mercury and shaken, the metal will separate into the finest particles, which facilitates the preparation of salves, etc. The essence of turpentine used may be of the cheapest variety, but the mercury to become pulverized must be chemically pure. Turpentine can thus be used as a test of its purity.

Heusner's Lotion in the Night Sweats of Phthisis.—Kohnstamm (*Therapie der Gegenwart,* 1900, No. 5; *Wiener medizinische Blätter,* June 21st) says that this lotion is effective in the night sweats of phthisis and in the hyperidrosis of exophthalmic goître. This is the formula:

℞	Balsam of Peru	1 part;
	Formic acid, Chloral hydrate, } each	5 parts;
	Absolute alcohol	100 "
M.		

He adds that its efficiency is heightened by the addition of one part of trichloracetic acid.

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NEW YORK, SATURDAY, JULY 7, 1900.

THE HOBOKEN CALAMITY.

AT intervals there bursts forth upon every community some wholesale disaster whose suddenness and relentless fatality appall the public mind—a landslide, a volcanic eruption, a railway accident, the foundering of some huge floating city at sea, a tornado, a pestilence, or a disastrous fire. It is probable that the collective number of victims claimed by these disasters during a period of many years falls far short of the sacrifice of human life due to preventable diseases; yet so overwhelming is the blow when it occurs that such calamities convulse with a thrill of horror the nervous system of the body politic that is little disturbed by the silent leakage of human life in a less portentous manner.

Such calamities are not, however, without their good results, for it commonly happens that the public mind is thus stirred up to inquire how they originate, what steps can be taken to avert their recurrence in the future, and how their evil results, should they nevertheless occur in spite of all efforts for their prevention, may best be mitigated.

The rapidity with which the fire of June 30th in the docks on the New Jersey side leaped into a terrific conflagration gave no loophole of escape to many unfortunate victims on board the great liners lying in the harbor, who found themselves helplessly and hopelessly trapped. When a fire occurs on land, water is the element of salvation brought in to arrest its progress. But in this case we read of dozens of human beings caged in the burning ships with "water, water everywhere," to which, nevertheless, they were unable to gain access. There can be no question that the chance of death by drowning, to say nothing of the bare possibility of rescue through the numbers of available craft in the vicinity, would have been to the agonized souls of the unhappy mortals imprisoned on the burning ships an alternative to fill their hearts with joy. Yet the most heartrending scenes were witnessed by those on tugs and other vessels in the vicinity: horrorstricken faces whose owners were vanly endeavoring to escape, through portholes too small to permit their passage, into the friendly element without.

In a fire on land, those imprisoned in the upper stories, if they leaped, would face almost as certain and as painful a death as if they remained; but here this was not the case. The horrors of the water before them, could they but have leaped into it, were infinitely less than those of the fire behind them; their fate would at least have been less painful, and their chances of being rescued from the less awesome peril considerable.

After each successive large fire on land, as, for instance, after the calamity at the Windsor Hotel, the community is aroused to a sense of the danger besetting every member of it, and measures are taken to abolish the structural and other conditions which turn large buildings into veritable fire traps, and to improve the means of rescue and succor should fire unhappily occur.

We have often wondered, especially when at sea, whether any real necessity or merely the blind following of custom prescribed the customary microscopic dimensions of the ships' porthole. Surely every available means of exit in time of calamity, especially at night, is as desirable in a ship as in a place of public entertainment. Why should not every cabin and every stateroom, like every tier in a theatre, have its exit, especially when the structural nucleus of it is necessarily there, and only requires some enlargement to make it available? Such an enlargement would be a godsend if only for ventilation. The dangers, if such there be, of too large an opening could easily be obviated by having the present glazed deadlight concentrically situated inside a larger one at least two feet in diameter.

It is gratifying to note the promptitude and efficiency of the assistance rendered to the injured by the various hospitals and institutions; but we earnestly hope that the ugly rumors of ghastly inhumanity on the part of persons on vessels surrounding the terrible scene, in refusing assistance to those struggling in the water, and even in some instances pushing them away, are but instances of the wild and irresponsible rumor that in all conditions of uncertainty is apt to take its rise.

It is in crises such as this that we conceive that such an organization as the National Volunteer Emergency Service Medical Corps, to which we referred in our issue for June 23d under the heading of A Boundless Scheme of Philanthropy, could be of preeminent service, provided, as we understand it aims at, not merely the repair of personal injuries, but also the supply of all the immediate necessaries of life ruthlessly swept away, such as food, clothing, shelter, transportation, etc., will be attended to.

This new institution might advantageously occupy itself by inquiring into the conditions of escape from vessels in times of emergency and in working out a method for their improvement. Such an investigation, we think, would be both timely and well advised.

THE PREVENTION OF COMMUNICABLE DISEASES.

So much has been printed concerning the subject of the prevention of infectious diseases that one hardly expects to find in current literature anything really new relating to it, but almost every additional writer brings out one or more points with unusual distinctness, and so helps to inculcate the lesson that a large portion of the medical profession, as well as the great mass of the people at large, still has to learn. The health officer of Louisville, Dr. M. K. Allen, has recently done this in a very forcible article published in *Pædiatrics* for June 15th.

During the recent epidemic of small-pox, says Dr. Allen, there were for some time about sixty physicians, inspectors, nurses, and others connected with the health department and the Eruptive Hospital, and they were daily exposed to the infection for many months. They were all vaccinated at the outset and revaccinated at various intervals, and not one of them contracted small-pox in any form. And, yet, the antivaccination agitators are able to persuade many intelligent people that vaccination is no protection against the disease. Dr. Allen well says that to yield to their objections "involves a possible national peril."

He is quite justified in maintaining that the responsibility for the spread of infectious diseases does not rest wholly upon boards of health; there are some physicians who do not respond promptly and willingly to the requirements as to notification, who are too indulgent in admitting visitors into infected premises, who allow too many children still in the communicable stage of disease, especially scarlet fever, to mingle with others, and who do not give proper attention to disinfection. We are glad that he is able to conclude with this statement: "It affords me great pleasure, however, to state that now, more than ever before in its history, the health department is in close touch with the medical practitioner; more fully than ever, it receives the information necessary to success in its efforts to restrict the spread of the communicable diseases and to protect and promote the public health."

The author thinks that cases of what is often termed typhomalarial fever should be reported as instances of typhoid fever, and the same precautions taken against its spread as against that of frank typhoid fever. He thinks also—and in this he is quite in accord with Dr. Sheffield, whose article on Influenza in Children we published last week—that the measures to be adopted for the restriction of that disease are isolation and disinfection.

The comparative importance of the individual infective diseases as destroyers of life probably varies not a little at different periods and in different localities, and any statement concerning it that would always hold good would have to be made in very general terms. It is interesting to note, however, that for Louisville, during a period not stated, the following is the order of their frequency as causes of death: Pneumonia, consumption, typhoid fever, diphtheria, measles, influenza, whooping-cough, scarlet fever, and small-pox.

PSEUDO-HYPERTROPHIC MUSCULAR PARALYSIS IN THE ADULT.

A few cases of Duchenne's paralysis occurring in the adult have been placed on record, but M. Josserand, who reports a typical instance in *Lyon médical* for June 17th, thinks that in one feature or another all those previously observed have varied from the type described by Duchenne. His patient, however, a woman now twenty-seven years old, would, if viewed through a reversed opera-glass, readily be taken for one of the children depicted by Duchenne. The myositis which gave rise to the paralysis began three years ago, during an attack of typhoid fever, and undoubtedly, as M. Josserand is convinced, in consequence of the typhoid infection. The diagnosis of myositis was made at the time, and paresis followed close upon the weakness of convalescence, which was protracted. The girl undertook service as a domestic, but her weakness and her difficulty in getting about, together with her frequent falls in going up and down stairs, led to her losing one situation after another, and at last in sheer desperation she became a hospital inmate again. It was not until a considerable time had elapsed after the onset of the paralysis that the pseudo-hypertrophy began to show itself.

The girl's present condition is vividly depicted by M. Josserand, and the description might serve as a standard portrayal of the disease, save for the patient's age. With lower limbs that look and feel like those of an athlete, she can not rise from a chair without the assistance of her hands laid on her thighs; her steps are short and labored to save herself from falling, and in ascending a flight of stairs she constantly uses her hands; if she is lying prone on the floor, she wearies herself with efforts to rise, finally clutching her feet with her hands, then her legs, and then her thighs. All four of her limbs are paretic, but the pseudo-hypertrophy is limited to the legs, the thighs, and the buttocks. Her sense of touch, her reflexes, and the action of her sphincters are not affected. There is simple muscular weakness in responding to the faradaic current, but no reaction of degeneration.

The author thinks that such muscular paralyses in the adult as have been described by other writers as examples of Duchenne's disease might appropriately form the subject of a chapter to be entitled On Pseudo-hypertrophic Pseudo-paralyses.

THE LEGAL STATUS OF THE NEW YORK COUNTY MEDICAL ASSOCIATION.

THE New York County Medical Association, which is distinct from the Medical Society of the County of New York, is in affiliation with the New York State Medical Association and, through that association, with the American Medical Association. The existence of the last-named connection seems to have been the point on which turned a recent judicial decision by which the county association's right to prosecute persons for illegal practice was sustained, together with its title to money which the city had collected as a fine imposed upon a person convicted on evidence furnished by the association. The city is reported to have contended in this case that the Medical Society of the County of New York was the only New York county organization entitled under the law to recover on such prosecutions. That has been the general interpretation of the law, we think, but nobody desirous of suppressing unlicensed practitioners can object to this doubling of the profession's police force, so to speak.

THE WORK OF THE DEPARTMENT OF AGRICULTURE.

MANY a rural practitioner of medicine is to some extent an agriculturist, but it is not on this account alone that the *Year-book of the United States Department of Agriculture* for 1899, recently published, will prove of interest to physicians. Much of what is contained in the volume, apart from the consideration given in it to diseases of domestic animals, will be found to furnish material for thought in connection with purely medical matters.

A REMEDIAL APPLICATION OF TOXINES.

IT seems that on an open surface like that of an ulcer the product of a pathogenic micro-organism may be advantageously employed to kill the organism. In cases of ulcer of the leg Dr. J. Bukovsky, in conjunction with Dr. Honl (*Annales de dermatologie et de syphiligraphie*, x, 12; *Centralblatt für Chirurgie*, June 9th), has found the *Bacillus pyocyaneus* present in a number of cases, and, although he does not look upon it as the primary ætiological agency, he is convinced that it interferes with the healing of the ulcer. He has found that applications, two or three times a day, of compresses wet with a liquid containing the toxine of that bacillus cause such ulcers to heal with uncommon rapidity, all the more rapidly if there are no such complications as eczema, varicose veins, scars, or elephantiasis, and he adds that the adjacent skin is not irritated by the applications.

PILOCARPINE IN DEAFNESS.

THE use of pilocarpine in certain forms of deafness is not altogether new, but Dr. Emery (*Massachusetts Medical Journal*, June) calls attention to the fact that it is more frequently overlooked than, considering the usually hopeless prognosis of nervous deafness, it ought to be. He records two cases in both of which total deafness came on suddenly with nausea and vomiting. In the first case, but not in the second, there was also vertigo, and further right facial paralysis ensued. Subjective noises in the ears were present in both cases. Both aerial and osseous conduction were obliterated. The first patient had a syphilitic history, but none could be elicited in the second. Severe pain was present in both cases, in the first at the back of the head and in the second at the vertex. The author considers that in the first case the auditory centres in the cerebellum were probably the seat of syphilitic exudation, while in the second the lesion was probably labyrinthine and apoplectoid in character, most probably due to the rupture of a small vessel in each of the two labyrinths simultaneously, the attack having taken place while the man was stooping at his work. The treatment consisted, after many other measures had failed, of injections of pilocarpine under the skin of the shoulder. The injections were at first of the strength of one twelfth of a grain and were administered daily, but as the strength was gradually raised to one third of a grain the frequency was diminished to every second and every third day. The patient remained in the recumbent posture for some six hours after each injection. Improvement in hearing manifested itself in each case almost immediately, and this progressed steadily. The author attributes the action of the drug to its stimulating the absorbents in the vicinity of the effusion before the latter had had time to become organized. It is obvious, therefore, that the treatment requires to be begun as early as possible, and it is probable that it would prove useful in cerebral apoplexy generally.

FISH AS POSSIBLE TRANSMITTERS OF PLAGUE.

NOT only rats, but now fish also, are said to be transmitters of plague. According to the *Journal of Tropical Medicine* for June, a quantity of dead fish were thrown up on the shore at Tokyo after a recent flood. Some of the fish, on being eaten, caused illness, and rats fed on them are said to have quickly sickened and died with all the symptoms of plague. Examination of the fish proved them to be infected with the plague bacillus. It has been stated for some time that crabs were liable to be affected by the plague bacillus, but, if fish generally are susceptible to infection by it, such a widespread source of danger will deserve to be generally known. The authority for the connection between fish and plague is apparently not forthcoming, a paragraph in a Japanese newspaper having led to the report. It will, of course, need further confirmation before any importance can be attached to it. But even the most unsupported statement concerning such an important matter should direct the attention of scientists to its thorough investigation, in order that either a needless scare may be avoided or a possible serious danger obviated.

A REMARKABLE INTERPRETATION OF THE WAYS OF PROVIDENCE.

A correspondent of the *Lancet*, Mr. Clayton Jones, whose communication appears in that journal for June 23d, seems to be convinced that modern civilization has done away with the usefulness of women past the menopause, and he suggests that the increase of cancer of late years is "Nature's first effort to remove these useless individuals." Useless, forsooth! What would become of us boys but for Grandma?

AMERICANS AS WATER DRINKERS.

The *Toledo Medical and Surgical Reporter* for July, in an editorial on Water as a Universal Solvent, in which the importance of a free use of drinking water is urged to remove the effete products of the blood, says: "The American people are a poor lot of water drinkers." This statement almost staggers one. While we have nothing to say against the advice given in the editorial to make a free use of wholesome drinking water, it must be well known to all acquainted with other civilized nations at home that the average American consumes at a modest computation at least ten times as much water as the average citizen of any other nationality.

THE TYPHOID BACILLUS IN THE BRAIN.

Damien Sotiriades (*Grèce médicale*, May) reports a case of typhoid fever in which at the autopsy the bacillus was discovered in the brain. Cases have been previously reported by Fernet to the Société médicale des hôpitaux, Walker and Moffitt (*Journal of the American Medical Association*, March), Hugot (*Gazette hebdomadaire de médecine et de chirurgie*, March 9th), Zipmann and Zenhartz. It is possible that the "typhoid state" maybe thus accounted for, the meninges as well as Peyer's patches being seats of election for the typhoid bacillus.

ACCIDENTAL VACCINATION ON THE LIP.

Accidental vaccination on various parts of the person is not very uncommon, but all cases of its occurrence are deserving of record. In the *Lancet* for June 23d Mr. A. R. Henchley says that he was recently sent for to see a woman supposed to be suffering from erysipelas. When he arrived he found the submaxillary lymphatic glands enlarged and a slight swelling of the left cheek. The lower lip was also swollen and had a large and a small vesicle near the junction of skin and mucous membrane at about its centre. Some ten days previously he had vaccinated her child, and he extracted from her the information that the baby had scratched her lip and that she had accidentally rubbed the vaccination pad with some discharge on it on her mouth while dressing it.

ITEMS.

The Nathan Straus Milk Charity.—We publish the following by request: Inasmuch as with the approach of summer the milk charity of Nathan Straus is about to enter the season of its greatest activity and usefulness, it has been thought desirable to state briefly to the members of the medical profession the facilities offered by this charity, and particularly to call their attention to certain new mixtures furnished by it. This charity, which was organized in 1893, in a little shed on a pier at the foot of East Third Street, now occupies a large two-story building on Avenue C, near Tenth Street, and dispenses during the year from various branches some five hundred and fifty thousand bottle of pasteurized milk.

In order to furnish a food better adapted to very young or sick infants, two new modifications have recently been prepared, one intended for sick infants and the other for healthy infants; the former is a dilution of milk with three times its bulk of water and limewater with sugar added, so as to provide a food containing one per cent. of fat, five per cent. of sugar, and one per cent. of proteids; this is dispensed in three-ounce bottles. The second new modification, intended for healthy infants of early age, represents two per cent. of fat, five per cent. of sugar, and one per cent. of proteids, also dispensed in three-ounce bottles. It is believed that these two formulæ may be of the greatest value in providing a food better adapted than those previously prepared for very young and sick children. Another modification, containing about four per cent. of fat, seven per cent. of sugar, and two per cent. of proteids, is dispensed in six-ounce bottles. Whole milk is also dispensed in pint bottles.

All this milk is accurately pasteurized in hygienic nursing bottles at 75° C. (167° F.), is rapidly cooled, and is delivered to the branch depots in refrigerator wagons. With each bottle a sterile nipple is supplied. The milk will be dispensed during the summer at the laboratory, 151 Avenue C, as well as at the following branches: The Roof Garden of the Hebrew Institute, 238 Mott Street, 65 Market Street, 510 West Forty-fourth Street, Battery Park, the City Hall, Tompkins Park, Central Park, St. Mary's Park, Bronx, and at the following recreation piers: Foot of East Third Street, foot of Christopher Street, foot of East Twenty-fourth Street, foot of West Fiftieth Street. The charges made for the milk are as follows: Three-ounce bottles, eight for five cents; six-ounce bottles, one cent each; sixteen-ounce bottles, two for five cents. Deposits to insure the return of the bottles will be required as follows: Three cents on three-ounce bottles, four cents on six-ounce bottles, five cents on sixteen-ounce bottles.

The milk will be supplied free to any applicant who presents a statement from a physician that she was unable to pay for it. Such applicant must, however, leave the usual deposit to insure the return of the bottles.

Infectious Diseases in New York.—We are indebted to the Sanitary Bureau of the Health Department for the following statement of cases and deaths reported for the two weeks ending June 30, 1900:

DISEASES.	Week ending June 23		Week ending June 30.	
	Cases.	Deaths.	Cases.	Deaths.
Typhoid fever	18	9	29	7
Scarlet fever	107	8	95	4
Cerebro-spinal meningitis	0	6	0	6
Measles	304	14	202	24
Diphtheria	257	30	285	35
Laryngeal diphtheria (croup)	8	3	4	7
Tuberculosis	178	135	123	133
Shicken-pox	19	0	15	0
Cmall-pox	4	1	0	0

Marine-Hospital Service Health Reports.—The following cases of small-pox, yellow fever, cholera, and plague were reported to the surgeon-general during the week ending June 30, 1900:

Small-pox—United States.

Washington, D. C.	June 16–23	14 cases.	
Chicago, Ill.	June 16–23	7 “	
Indianapolis, Ind.	June 15–22	2 “	
Wichita, Kan.	June 16–23	3 “	
Covington, Ky.	June 16–23	12 “	1 death.
New Orleans, La.	June 16–23	16 “	7 deaths.
Shreveport, La.	June 16–23	3 “	
Fall River, Mass.	June 16–23	5 “	
Lowell, Mass.	June 16–23	1 case.	
Grand Rapids, Mich.	June 16–23	1 “	
Manchester, N. H.	June 16–23	3 cases.	
Jersey City, N. J.	June 17–24	1 case.	
Newark, N. J.	June 8–23	10 cases.	
New York, N. Y.	June 16–23	4 “	
Cleveland, Ohio	June 16–23	12 “	
Pittsburgh, Pa.	June 16–23	1 case.	
Nashville, Tenn.	June 16–23	5 cases.	
Tacoma, Wash.	June 8–16	1 case.	
Charlestown, W. Va.	June 19	14 cases.	
Wheeling, W. Va.	June 22	1 case.	

Small-pox—Foreign and Insular.

Prague, Austria	June 2–9	8 cases.	
Antwerp, Belgium	May 26–June 2	1 case.	
Rio de Janeiro, Brazil	May 11–18	7 cases,	5 deaths.
Province of Quebec, Bonaventure County, Canada.	May 21–28	1 case.	
Hongkong, China	May 5–19	1 “	
Liverpool, England	June 2–9	4 cases.	
London, England	June 2–9	11 “	
Southampton, England	June 2–16	2 “	
Lyons, France	May 19–26		3 “
Paris, France	June 2–9		3 “
Gibraltar	June 3–10	1 case.	
Athens, Greece	June 2–9	4 cases,	2 “
Bombay, India	May 16–29		29 “
Calcutta, India	Apr. 21–28		41 “
Kurrachee, India	May 13–27	61 “	48 “
Madras, India	May 5–25		1 death.
Chihuahua, Mexico	May 26–June 9		4 deaths.
Vera Cruz, Mexico	June 8–16		9 “
Ponce, Porto Rico	June 4–11	2 “	
Moscow, Russia	May 26–June 2	13 “	3 “
Odessa, Russia	June 2–9	6 “	1 death.
St. Petersburg, Russia	May 26–June 2	47 “	8 deaths.
Warsaw, Russia	May 19–June 2		6 “
Glasgow, Scotland	June 15		1 death.
Corunna, Spain	June 2–9		1 “
Straits Settlements, Singapore	May 10–17		3 deaths.

Yellow Fever—Foreign.

Barranquilla, Colombia	June 2–9	4 cases,	3 deaths.
Panama, Colombia	June 11–18	8 “	
Havana, Cuba	June 6–17	6 “	2 “
Santa Clara, Cuba	May 16–June 21	26 “	8 “
Trinidad, Cuba	June 19	1 case.	
Vera Cruz, Mexico	June 8–16		15 “

Cholera.

Bombay, India	May 17–29	110 deaths.
Calcutta, India	Apr. 21–28	92 “

Plague—Foreign.

Aden, Arabia	May 12–June 2	170 cases,	100 deaths.
Amoy, China	June 23	Reported.	
Hongkong, China	May 5–19	155 cases,	142 “
Bombay, India	May 17–29		410 “
Calcutta, India	Apr. 21–25		343 “
Kurrachee, India	May 13–27	154 “	115 “
Osaka, Japan	May 25–June 2	4 “	
Shidzuoka Ken, Japan	May 25–June 2	5 “	
Smyrna, Turkey	May 29	1 case.	

The Buffalo Pan-American Exposition.—Dr. A. L. Benedict, the superintendent of the department of ethnology and archæology, writes to us as follows:

“The Pan-American Exposition has seen fit to intrust the care of the department of ethnology and archæology to a practising physician. I should be very glad if you would allow me to reach your readers with the following request for assistance:

“Many members of the medical profession are interested in the study of American ethnology and archæology, and not a few have valuable collections of Indian relics and skeletons from Indian graves. Those not directly interested in this study are so circumstanced as to be aware of the hobbies of their neighbors, and could doubtless furnish the address of collectors. I should be greatly obliged for information and for the loan of collections for the use of this department of the exposition. Exhibits which represent study in some special line of American ethnology and archæology will be particularly suitable.”

Honey as a Poison.—The *Medical Review* for June, citing the *British Medical Journal* of unspecified date, says that a case of poisoning by honey was related in the *Therapeutische Monatsschrift*, No. 12, 1898. A woman, aged fifty-four, ate a quarter of a pound of honey. She immediately complained of a burning sensation on her forehead, which was associated with visual hallucinations. The face became pallid and cold and the pulse irregular. She gradually lost consciousness, and had general convulsions, which began in the arms. After an emetic and the hypodermic injection of stimulants she revived. Mydriasis and a pricking sensation in the tongue remained some time after the return of consciousness. The honey had a bitter taste.

In Xenophon's time, we are told, honey poisoning seemed to be fairly common. He describes the symptoms as consisting of vomiting, diarrhœa, a staggering gait, and subsequent delirium. In 1790, in North America, Barton says it was frequently observed in Florida, Pennsylvania, and New Jersey. Hasemann reports two cases in Altdorf in Switzerland. Jenner describes cases of poisoning following the administration of honey tainted with *Bombus terrestris* and *Bombus lucovum*. The admixture of products from poisonous plants with the honey is the usual cause of poisoning; the *Azalea pontica* and *Rhododendron ponticum* are frequent offenders. The active principle in these plants has been isolated by Plugge, who termed it andromedotoxine, on the ground that it was first discovered in the *Andromeda japonica*. The cases of poisoning in America were probably due to the same alkaloid. Plugge has also found andromedotoxine in *Calmia angustifolia*. In Germany the aconite plant and *Nerium oleander* are generally suspected in cases of honey poisoning.

“Nicotine Fever and Antinicotine Frenzy.”—Under this heading the *British Medical Journal* for June 23d delivers itself editorially as follows: “Men, however else they may be divided, are separable into two great classes —those who smoke and those who do not. Between these two sections of the human race there is a great gulf fixed. The worshipers of our Lady Nicotine are a peaceful folk who do not interfere with their neighbors, and only wish to be left to the undisturbed practice of their ritual. The non-smokers, on the other hand, are mostly fiery zealots who rage against the cult as a thing savoring of Sheol, and who would be glad to burn all nicotinolaters with faggots made of the instruments of their superstitious devotion. Tobacco stinks in the nostrils of many worthy persons worse than incense in those of Mr. Kensit or Mr. Samuel Smith.

In season and out of season we hear them denounce it; they speak of the prevalence of 'nicotine fever' as if it were something more terrible than the plague. Nicotine fever may be bad for the body; but is not antinicotine frenzy even worse for the mind? One of the most characteristic symptoms of this affection is a remarkable kind of delirium in which all moral perspective is lost, and the mind is taken captive by delusions more fantastic than Don Quixote's windmill giants. Under the influence of those delusions the perfervid antinicotian sees in tobacco the cause of all diseases and of most moral evils, and would agree with James the First that its smoke is of the same chemical composition as that which issues from the bottomless pit. Such a one the chief of the weather bureau at Washington appears to be. That enlightened functionary has, it is stated, forbidden his clerks to smoke cigarettes, not only during working hours, but even in their leisure time, and therefore presumably in the sanctuary of their own homes. He justifies an edict, which the Great White Czar himself might have a delicacy about issuing, by the plea that the cigarette makes his assistants less efficient in their work. Perhaps clerks of the weather are, from the nature of their calling, more volatile than ordinary men, and therefore need more paternal government; but in that case, why does this meteorological autocrat graciously allow them to smoke cigars, and even pipes? Doubtless because the cigarette is to him, as to so many of his countrymen, the incarnation of the evil spirit of nicotine. That boys should be forbidden to smoke, and even terrorized into obedience by the mailed fist of the law, is all very well; but the idea that healthy men are likely to be unnerved and otherwise damaged, intellectually as well as physically, by moderate indulgence in cigarettes is simply absurd. We are sorry to see that the antinicotine frenzy has spread to Japan. According to a Tokyo paper, the educational department has issued an order to the effect that all students—irrespective of their being in minority or majority—of the primary schools, middle schools, normal schools, and other schools of the same grade are positively forbidden to smoke. A law prohibiting 'juvenile smoking,' which passed the Diet in its last session, has lately come into operation, but with that we do not quarrel. It is the attempt to force such a self-denying ordinance on adult students that strikes us as not only foolish but futile. Dr. W. G. Grace has recently confided to an inquiring journalist the following 'secret of health': 'Live a natural, temperate life, get all the outdoor exercise you can, and don't smoke.' The advice is excellent as far as it goes. Dr. Grace is a model of manly vigor at an age when for most men the love of cricket has become strictly Platonic; but is there any shadow of proof forthcoming that it is abstinence from tobacco that has made him the greatest of cricketers past, present, and perhaps to come? It is at least thinkable that, had he been a moderate smoker, he would have been greater still."

We have but little to add hereto, save to state that it coincides very fully with our own often-expressed opinion. There is absolutely not one shadow or tittle of substantiable evidence to show that cigarette smoking is in itself more injurious than any other form of tobacco using. Inhalation is pernicious, whether practised from pipe, cigar, or cigarette, and many adults suffering from various disorders or tendencies, as well as all children, ought to abstain from smoking altogether. But that aspect apart, and excess, which is a purely individual matter, differing for each personality, being avoided, the anticigarette strikers, like the antitobacconists, have no reasonable ground to justify them in trying to enforce their fads upon others.

Army Intelligence.—*Official List of Changes in the Stations and Duties of Officers serving in the Medical Department, United States Army, from June 23 to June 30, 1900:*

Balch, Lewis, Major and Surgeon, United States Volunteers. Par. 12, S. O. 140, June 15, 1900, W. D., honorably discharging him from the service of the United States, is revoked.

Crosby, William D., Major and Surgeon, United States Volunteers (Captain and Assistant Surgeon, United States Army), is honorably discharged from the volunteer service of the United States only, to take effect June 30, 1900.

Ducker, Orlando, Major and Surgeon, United States Army, will report to the commanding general, Department of Havana and Pinar del Rio, for temporary duty.

Echeverria, Rafael, Major and Surgeon, United States Army, will report to the commanding general, Department of Havana and Pinar del Rio, for temporary duty.

Stone, J. Hamilton, First Lieutenant and Assistant Surgeon, United States Army, is relieved from all duty with the garrison of Matanzas, and assigned to station at Santa Clara Barracks, Santa Clara, Cuba.

Wolfe, Edwin P., First Lieutenant and Assistant Surgeon, United States Army, will proceed to Morro Castle, Santiago de Cuba, for duty.

Naval Intelligence.—*Official List of Changes in the Medical Corps of the United States Navy for the Week ending June 30, 1900:*

Eakins, O. M., Assistant Surgeon. Detached from the *Buffalo* and ordered to the *Scindia.*

Fiske, C. N., Assistant Surgeon. Ordered to the Boston Navy Yard.

Rush, W. H., Surgeon. When discharged from treatment at the Naval Hospital, Mare Island, California, ordered to Washington, July 10th, for examination for retirement, and then home to await orders.

Stokes, C. F., Surgeon. Promoted to surgeon from May 31, 1900.

Marine-Hospital Service.—*Official List of Changes of Stations and Duties of Commissioned and Non-Commissioned Officers of the United States Marine-Hospital Service for the Seven Days ending June 28, 1900:*

Austin, H. W., Surgeon. Granted leave of absence for one month from August 2, 1900.

Magruder, G. M., Surgeon. Granted leave of absence for ten days.

Smith, A. C., Passed Assistant Surgeon. Granted leave of absence for seven days.

Oakley, J. H., Passed Assistant Surgeon. Granted leave of absence for fifteen days.

Sprague, E. K., Passed Assistant Surgeon. Granted leave of absence for ten days.

Wickes, H. W., Passed Assistant Surgeon. Granted leave of absence for fifteen days.

Grubbs, S. B., Assistant Surgeon. Granted leave of absence for one month from August 20th.

Anderson, F. F., Assistant Surgeon. Granted leave of absence for ten days.

Billings, W. C., Assistant Surgeon. Granted leave of absence for eighteen days from June 28th.

Wilson, R. L., Assistant Surgeon. Relieved from special temporary duty at San Francisco Quarantine and directed to report to the medical officer in command at San Francisco for duty and assignment to quarters.

Earle, B. H., Assistant Surgeon. Relieved from special temporary duty at San Francisco Quarantine and directed to report to the medical officer in command at San Francisco for duty and assignment to quarters.

Long, J. D., Assistant Surgeon. Upon being relieved from duty at New York (Stapleton) to proceed to Washington and report to the Director of the Hygienic Laboratory for duty.

Francis, Edward, Assistant Surgeon. To proceed to New York (Stapleton) and report to the medical officer in command for duty and assignment to quarters.

Bahrenburg, L. P. H., Assistant Surgeon. To proceed to New York and report to Surgeon L. L. Williams, Immigration Depot, for duty.

Burkhalter, J. T., Assistant Surgeon. To proceed to New York (Stapleton) and report to the medical officer in command for duty and assignment to quarters.

Boggess, John S., Assistant Surgeon. To proceed to Chicago and report to the medical officer in command for duty and assignment to quarters.

McCoy, G. W., Assistant Surgeon. To proceed to St. Louis and report to the medical officer in command for duty and assignment to quarters.

Pierce, C. C., Assistant Surgeon. To proceed to Mobile and report to the medical officer in command for duty and assignment to quarters.

Warren, B. S., Assistant Surgeon. To report at Washington for temporary duty.

Rowles, J. A., Acting Assistant Surgeon. Granted leave of absence for ten days from June 12th.

Sibree, H. C., Acting Assistant Surgeon. Granted leave of absence for seven days.

Roehrig, A. M., Hospital Steward. Upon being relieved from special temporary duty at the San Francisco Quarantine to rejoin station at San Francisco.

Hanrath, F. R., Hospital Steward. Relieved from duty at New York (Stapleton) and, upon expiration of sick leave of absence, to proceed to Cleveland and report to the medical officer in command for duty and assignment to quarters.

Gibson, F. L., Hospital Steward. Relieved from duty at Washington and directed to proceed to Honolulu, Hawaii, and report to Surgeon D. A. Carmichael for duty and assignment to quarters.

Appointments.

Edward Francis, of Ohio; Louis P. H. Bahrenburg, of Ohio; John T. Burkhalter, of Georgia; John S. Boggess, of Ohio; George W. McCoy, of Tennessee; Claude C. Pierce, of Tennessee, and Benjamin S. Warren, of Alabama, commissioned as assistant surgeons.

Walter R. Hicks, of Michigan, appointed acting assistant surgeon for duty at Menominee, Michigan.

Society Meetings for the Coming Week:

Monday, *July 9th:* New York Academy of Medicine (Section in General Surgery); New York Academy of Sciences (Section in Chemistry and Technology); New York Medico-historical Society (private); New York Ophthalmological Society (private); Gynæcological Society of Boston; Burlington, Vermont, Medical and Surgical Club; Norwalk, Connecticut, Medical Society (private).

Tuesday, *July 10th:* New York Academy of Medicine (Section in Genito-urinary Surgery); Medical Society of the County of Rensselaer, New York; Newark (private) and Trenton, New Jersey, Medical Association; Clinical Society of the Elizabeth, New Jersey, General Hospital and Dispensary; Northwestern Medical Society of Philadelphia; Practitioners' Club, Richmond, Kentucky; Richmond, Virginia, Academy of Medicine and Surgery.

Wednesday, *July 11th:* American Microscopical Society of the City of New York; Society of the Alumni of the City (Charity) Hospital.

Thursday, *July 12th:* Brooklyn Pathological Society; Medical Society of the County of Cayuga, New York; South Boston, Massachusetts, Medical Club (private).

Friday, *July 13th:* German Medical Society of Brooklyn; Medical Society of the Town of Saugerties, New York.

Births, Marriages, and Deaths.

Married.

Arrowsmith—Howard.—In Brooklyn, on Saturday, June 30th, Dr. Hubert Arrowsmith and Miss Josephine Howard.

Atwood—Gorton.—In Providence, Rhode Island, on Tuesday, June 26th, Dr. Charles Fenner Atwood, of Boston, and Miss Adah Carolyn Gorton.

Bacon—Curran.—In Central Falls, Rhode Island, on Monday, June 25th, Dr. Walter A. Bacon and Miss Agnes M. Curran.

Burgott—Clay.—In Columbus, Mississippi, on Wednesday, June 27th, Mr. J. Irwin Burgott and Miss Nina Clay, daughter of Dr. Matthews Clay.

Couret—Bougie.—In New Orleans, on Wednesday, June 27th, Dr. Maurice Couret and Miss Elda Elizabeth Bougie.

Duggan — McIlvaine.—In New Orleans, on Wednesday, June 20th, Dr. T. A. Duggan and Miss Lydia Blanche McIlvaine.

Leefe—Austin.—In Morrice, Michigan, on Monday, June 4th, Mr. Frederick E. Leefe and Miss Lida Helen Austin, daughter of Dr. George O. Austin.

Lockhart—Thompson.—In Brandon, Mississippi, on Wednesday, June 27th, Dr. J. R. Lockhart, of Westville, Mississippi, and Miss Sadie V. Thompson.

Moore—Aubrey.—In Sorento, Maine, on Saturday, June 30th, Dr. Samuel M. Moore, of Evanston, Illinois, and Mrs. Paulina Cony Aubrey.

Picard—Stortz.—In St. Louis, on Tuesday, June 26th, Dr. Milton Picard, of New York, and Miss Babeth Stortz.

Sayward—Robbins.—In Hingham, Massachusetts, on Thursday, June 21st, Dr. William H. Sayward, Jr., of Dorchester, Massachusetts, and Miss Mary Parkman Robbins.

Vincent—Wehman.—In Brooklyn, on Monday, June 25th, Dr. William Curtis Vincent and Miss Marie Magdalene Wehman.

Died.

Arcularius.—In New York, on Sunday, July 1st, Dr. Louis Arcularius.

Rogers.—In Schenectady, New York, on Monday, June 25th, Carrie Gavitt Rogers, wife of Dr. Frank T. Rogers, of Providence, Rhode Island.

Saxe.—In Madison, New Jersey, on Monday, June 25th, Dr. George Godfrey Saxe, in the thirty-sixth year of his age.

Ward.—In Newark, New Jersey, on Monday, June 25th, Dr. George S. Ward, in the seventy-third year of his age.

Pith of Current Literature.

The Journal of the American Medical Association, June 30, 1900.

Abdominal versus Vaginal Hysterectomy for Uterine Carcinoma. By Dr. John B. Deaver.—The author, writing from the viewpoint of the general surgeon, challenges the statement that vaginal hysterectomy is an operation requiring special training and such attention to detail and technique as can be acquired by the specialist alone. The general surgeon is at least equally as well equipped to perform every operation of gynæcology as is the specialist himself. However, for the great majority of cases of uterine carcinoma, he gives the preference to abdominal hysterectomy over the vaginal route, though, in a few cases, the latter may be the better.

When there is, macroscopically, involvement of the broad ligament, total extirpation of the lymphatics of the pelvic organs is the course to pursue; and such a complete hysterectomy can only be performed by the abdominal operation. Also in this operation there is (1) a better area for complete extirpation of carcinomatous tissue; (2) lessened danger to the ureters—catheterization is unnecessary; (3) lessened danger of hæmorrhage—immediate and post-operative—and (4) less danger of infecting the peritonæum.

Where the carcinomatous process is confined strictly to the vaginal portion of the cervix, the cervical or uterine canal, and where the uterus is freely movable, the vaginal operation is applicable.

Intracranial Pressure. Relief in Non-traumatic Cases without Localizing Symptoms. By Dr. William N. Bullard.—That non-traumatic cases of increased intracranial pressure of unknown or doubtful origin exist, is the author's conclusion; and when such excess of pressure causes serious symptoms, the question of its relief by opening the cranium and cutting the dura should always be considered. Such a procedure may in certain cases produce a more or less permanent relief or even cure. Cases of acute severe optic neuritis of unknown origin are sometimes benefited by such surgical interference. Illustrative cases are given.

Typhoid Fever. By Dr. J. H. Sackrider.—Chloride of mercury, followed by salol for a longer or shorter period, will aid in that early antisepsis of the gastrointestinal tract, which is greatly desired.

Should the Dental Student be Educated Independently of General Medicine? By Dr. G. V. I. Brown.

The Practical Value of a Medical Education to the Student of Dentistry. By Dr. Warren Brown Hill.

Is Medical Education a Necessary Qualification for Dental Practice? By R. R. Andrews, D. D. S.

Hæmorrhage after Confinement, and its Treatment. By Dr. Herman E. Hayd.

Iritis senum. By Dr. Albert B. Hale.

Medical Record, June 30, 1900.

Concerning the Peritonæum and the Treatment of Exudative Peritonitis. By Dr. Albert A. Berg.—The author protests against the too active handling of this most sensitive tissue. That gauze packings, irrigation, and evisceration not only injure the delicate nervous mechanism of the peritonæum, but also favor, by interfering with the activity of the cellular process, the local sedimentation of bacteria, with their consequent local development and deleterious effects, should, by this time, be more generally recognized.

The Treatment of Typhoid Fever. By Dr. R. E. English.

The Uselessness of the Pituitary Body as a Therapeutic Agent. By Dr. William M. Leszynsky.—The daily administration of the tablets for months at a time has failed to ameliorate the symptoms of acromegaly in the author's experience; and if we accept the theory of Dr. Harlow Brooks, "that the increased secretion of the prehypophysis in acromegaly acts as a direct stimulus to the connective-tissue cells, and by its persistent action slowly augments their growth," the use of the pituitary gland preparations would be contra-indicated. These considerations, in connection with the fact that extirpation of the pituitary gland in dogs and in man (when the hypophysis cerebri has been the seat of a destructive process, such as sarcoma) is not followed by any of the pathognomonic symptoms of acromegaly, would seem to prove that acromegaly is not due to obliteration of the glandular structure of the hypophysis, and that this alleged remedy has been used only empirically and is absolutely inefficacious.

A Preliminary Note on a Simple and New Method of Repeatedly Sterilizing Sponges by Boiling. By Dr. Charles A. Elsberg.

A Reminder for the Care of Children During the Summer. By Dr. S. Henry Dessau.

The Medical News, June 30, 1900.

The Prevention of Dystocia due to Fœtal and Pelvic Disproportion. By Dr. Edward A. Ayers.—Though the induction of labor represents a distinct element of sacrifice of the child's interests as compared with major operations at term, it is unquestionably a fact that induced labor takes precedence over all other measures in threatened dystocia. The results of the restriction of fœtal growth by diet are very encouraging.

The Treatment of Tumors Complicating Pregnancy. By Dr. Brooks H. Wells.

The Indications for Premature Delivery, with Special Reference to Eclampsia and the Pre-eclamptic State. By Dr. S. Marx.—Pelvic contraction is only a relative condition, and in but a very few cases does the bony pelvis afford an absolute indication. Small and even fair-sized fœtuses have been delivered through pelves whose diameters were far from normal; and women with apparently normal pelves in labors with very large children frequently give us the picture of a pelvis relatively contracted, and as such would warrant operations of a more difficult type than those in whom the pelvis shows a diminution in all its diameters. The election of any form of operation months before is advised against. When the head fails to engage, then we have proof positive that the pelvis is too small, and the time to interfere is at hand. The pelvimeter should be used for purposes of comparison only, and the author deprecates the absolute value of the instrument as one of precision.

When is it Proper to Interfere in Apparently Difficult or Delayed Cases of Labor, especially Primiparæ? By Dr. Malcolm McLean.

The Philadelphia Medical Journal, June 23, 1900.

Angina Pectoris. By Dr. Clifford Allbutt.

Annual Address on General Medicine before the American Medical Association. By Dr. J. A. Witherspoon.

Scarlatina: Some Further Experiments. By Dr. William J. Class.

The Surgical Treatment of Congenital and Pathologic Disfigurements of the Face. By Dr. John B. Roberts.

A Contribution to the Study of Exophthalmic Goître. By Dr. Alfred Gordon.—Dr. Gordon believes that the immediate cause lies in the sympathetic nerve, and formulates the therapeutic indications as follows: 1. If the syndrome of the disease is the result of a mechanical pressure on the nerve, remove the pressure. If the symptoms persist, operate upon the sympathetic. 2. If it is the result of reflex influence on the medulla and through the last on the sympathetic nerve from some remote affection, as fibroid uterine tumors, nasal polyps, etc., remove the last; symptoms persisting, operate upon the nerve. 3. If the syndrome of the disease occurs during the course of any spinal or other organic nervous disease, abstain from operation. 4. If there is no apparent cause, operate upon the sympathetic nerve. *Never operate* upon the hypertrophied thyreoid gland. If operation is refused, medical treatment can be used, but it will never effect a permanent cure.

American Journal of Obstetrics and Diseases of Women and Children, June, 1900.

Comments on the Toxæmia of Pregnancy and on the Operative Treatment of Uterine Displacements. By Dr. Egbert H. Grandin.—The author inculcates the necessity of inducing premature labor in cases of the coexistence of pregnancy and Bright's disease whenever, under proper diet, the amount of urea excreted falls below the normal point. As regards uterine displacements, he deals only with those that are classed as backward displacements. He contends that the falling of the organ, rather than its backward inclination, is what gives rise to symptoms. For various reasons he rejects all forms of shortening of the round ligaments, also vaginal fixation, and gives the preference to suspension of the uterus from the parietal peritonæum, care being taken to pass the uterine portion of the suture in front of the fundus, so as to interfere as little as possible with the evolution of the organ in case of pregnancy.

Carcinoma of the Rectovaginal Sæptum. By Dr. W. R. Pryor.

The Treatment of Full-term Ectopic Gestation: Should not the Child Receive Some Consideration? By Dr. Edwin B. Cragin.

Combined Nephrectomy and Ureterectomy. By Dr. E. E. Montgomery.

Diphtheria Deaths and Antitoxine Statistics. By Dr. Adolph Rupp.

Some Observations on Pryor's Method of Removing the Fibroid Uterus, with a Report of Ten Successive Successful Cases. By Dr. A. Lapthorn Smith.

The Frequency and Significance of Infarcts of the Placenta. By Dr. J. Whitridge Williams.

A Review of Five Years' Experience with Pelvic Diseases at the Vanderbilt Clinic. By Dr. William S. Stone.

An Improved Vesical Speculum. By Dr. Howard A. Kelly.

The Treatment of Persistent Fæcal Fistulæ. By Dr. I. S. Stone.

New Orleans Medical and Surgical Journal, June, 1900.

Some Recent History of Small-pox in New Orleans. By Dr. Quitman Kohnke, health officer of the city of New Orleans.

Vivisection is a Necessity for Medical Progress. By Dr. S. P. Delaup.

The Annual Report of 1900 to the President of the Tulane University of Louisiana at the Annual Commencement of the Medical Department, May 2, 1900. By Professor Stanford E. Chaillé, dean.

Medical Journalism. By Dr. Charles Chassaignac.—The author points out the important part played by the medical press in the rapid transmission of the idea of the thinker or the invention of the genius, hot from the brain of the originator, to the receptive faculties of the reader. While by no means capable of superseding the book, it has, however, a symposiumlike value in that it is not the thought or knowledge of a single mind that is presented, but the simultaneous opinions and observations of different individuals and from various sources, thereby enabling the subscriber to reach a conclusion or formulate a course of action after hearing all sides of a moot point. In the medical journal, too, are gathered the data for the medical statistician, whereby theories, methods, etc., have their truth or value gauged by the measure of individual results at many hands and in many places. Moreover, efforts which would be futile on the part of individuals can be combined and directed through the agency of the editorial mind and made to achieve their purpose.

The British Medical Journal, June 23, 1900.

Degeneration of the Neurone. By Dr. F. W. Mott.—The first of the Croonian Lectures on this subject. The writer gives the history of the development of the neurone concept, and also present-day views as to neurone degeneration. The article is of chief interest to neurologists.

Antenatal Diagnosis. By Dr. J. W. Ballantyne.—(Begun in the *British Medical Journal* for June 16, 1900.) The writer defines antenatal diagnosis as the recognition and separation one from another of all the pathological conditions which are produced during antenatal life, not only while that period of existence is still in progress, but also after the product of its pathology has been expelled from the uterus, and even during the time it is passing through the vagina on its way to the exterior. The following lines of investigation are recommended: 1. The previous medical history of the woman, both general and sexual. 2. The past history and present state of the father, and the family history on both sides. 3. The maternal symptomatology during pregnancy. 4. Physical examination of the maternal organs, especially of the abdominal viscera. 5. Examination of the fœtus by means of the hands, the ear, the cephalometer, the Röntgen rays, and any other means of exact research that may yet be invented. 6. Examination of the maternal blood and urine. Each of the abovementioned points is dwelt upon in detail, and examples are given of their application in forming a diagnosis. While admitting that antenatal diagnosis is as yet a sealed book for most physicians, the writer claims that it is not more so than intracranial and intrathoracic diagnosis were formerly, and that careful study and observation and the use of the various modern methods of exact research will in time clear away a great part of its mystery. Skiagraphy has not as yet rendered much service because of the imperfect ossification of the fœtal skeleton and the deep shadow cast by the maternal pelvis. A means of diagnosis which should be more widely made use of is the detection of changes in the maternal blood and excretions. There are many problems to be worked out. Even after a dead fœtus is born, the necessity for a diagnosis still exists. We should not be satisfied with loosely terming the case one of "habitual" stillbirth or miscarriage, but should discover the underlying fault and correct it.

Epidemic Cerebro-spinal Meningitis in Dublin. By Dr. A. R. Parsons and Dr. H. E. Littledale.—The writers report seven cases of cerebro-spinal meningitis occurring in individuals from five to twenty-eight years of age. The following points were brought out: The disease is most common in children and young adults, and occurs most frequently in spring. The immediate exciting cause is the *Diplococcus meningitidis intracellularis*. The onset was sudden and definite, usually beginning with headache. There was no constant type of temperature curve. Kernig's sign was present in all the cases; it was noticed as early as the third day and persisted well into convalescence. The knee-jerk was diminished or absent—never exaggerated. No purpuric eruptions were observed, but naso-labial herpes occurred in four cases. Most of the cases had strabismus and double vision, due to involvement of the external rectus. Three of the seven cases died. The treatment was symptomatic, consisting of ice to the head, evaporating lotions and trional, bromides and morphine. Bacteriological examination of fluid drawn from the spinal canal of one of the cases showed the presence of Weichselbaum's diplococcus.

A Case of Hæmorrhagic Pancreatitis. By Dr. J. C. Uhthoff and Dr. E. F. Maynard.—The writers report the case of a man, aged seventy-seven, who was suddenly seized with intense abdominal pain, followed by vomiting, which persisted until death occurred. The vomitus consisted of "coffee-ground" material. Death took place on the fourth day. The necropsy showed the presence of hæmorrhagic pancreatitis, the entire organ being adherent to adjacent structures. The pancreas was much swollen, of a dark purplish color, and showed numerous small spots of fat necrosis over its whole length.

Notes on a Case of Acute Pancreatitis Complicating Mumps. By Dr. H. W. Jacob.—The writer reports the case of a boy aged ten, who on the fourth day of an attack of mumps, was seized with violent pain in the abdomen and severe vomiting. The temperature rose to 103.8° F., but, while the boy suffered acutely, there was no abdominal distention, and the knees were not drawn up. Palpation showed the presence of an acutely sensitive, sausage-shaped mass exactly in the position in which one would expect to find an enlarged pancreas. The tumor remained unaltered after free evacuation of the bowels. The pain gradually lessened, but the pancreatic enlargement persisted for some days. The boy made a perfect recovery. Coincident with the development of the pancreatic affection, there was a distinct subsidence of the parotiditis.

Gazette hebdomadaire de médecine et de chirurgie, June 14, 1900.

Geographic Distribution of Goître in France. By M. Lucien Mayet.

Intra-amniotic Hæmorrhage.—M. Schuhl reports a case of intra-amniotic hæmorrhage due to the attachment of a normally inserted placenta. The symptoms were syncope, increase in the size of the uterus, and hardness of the uterus, which was also sensitive to pressure. The amniotic fluid was seen to be blood-stained when the membranes ruptured. Through a rent in the membranes the source of the hæmorrhage was clear.

Gazette hebdomadaire de médecine et de chirurgie, June 21, 1900.

A Case of Constitutional, Submucous, Suppurative Adenitis.—M. Mériel reports a case of a man who, from carious teeth, developed this condition in a chronic state.

L'Indépendance médicale, June 20, 1900.

Causes of Arteriosclerosis.—M. S. Bernheim divides the causes of arteriosclerosis into three classes: 1. Diathetic causes—rheumatism, gout, diabetes, and arthritis. 2. Toxic causes—alcoholism, plumbism, nicotine poisoning, vicious eating, excesses, senility. 3. Infectious causes—the eruptive fevers, tuberculosis, malaria, and syphilis. In all these elements, says the author, it is evident that disturbed nutrition, and a consequent change—frequently of a toxic nature—in the blood, evokes the characteristic changes in the blood-vessels which present the picture of arteriosclerosis.

La Presse médicale, June 13, 1900.

Treatment of Uterine Fibroids.—M. S. Duplay, discussing this subject, says the conservative methods of treatment are threefold. The first is by the daily hypodermic injection for several months of ten drops of the following solution:

℞ Ergotine	....	30 grains;
Chloral hydrate	....	15 "
Water	....	6 ounces.

This is Simpson's formula, and its use is sometimes followed by an atrophy or disappearance of the tumor. Electricity the author does not recommend, as being uncertain and sometimes dangerous. Treatment by mineral baths may be palliative, but is not curative. The complications which demand operation are hæmorrhages, pain, signs of compression, septic symptoms, and torsion of the pedicle of a pedunculated fibroid. Rapidly growing fibroids in young women should also be removed. Myomectomy, when feasible, is a valuable operation, since it preserves the uterus.

La Presse médicale, June 20, 1900.

Tumors of the Bulb.—M. F. Raymond records a case of a woman of thirty-three years of age, the daughter of an alcoholist who had committed suicide, who had a motor paresis mainly of the left side, difficulty of speech and deglutition, a paralysis of the right side of the vault of the palate, of the pharynx, and of the larynx, paræsthesia of the right side of the face, diminution of the sense of smell on the right side, nystagmus, exaggerated tendon reflexes, and some incoordination of movements. The diagnosis was made of a tumor of the bulb, an atypical form of *sclérose en plaques.*

Revue de chirurgie, June, 1900.

Cancer of the Large Intestine, the Rectum Excepted. By M. R. de Bovis.

Intermittent Fibrous Polypi of the Rectum. By M. Maurice Péraire.

Chronic Proliferating Osteomyelitis. By M. B. Kozlovsky.

Compression of the Pedicle of a Movable Kidney by a Distended Gall Bladder containing Calculi; Nephropexy, Cholecystostomy, Recovery. By M. E. Reymond. —The author gives the history of a case, and remarks that the coexistence of cholelithiasis and mobility of the kidney is not uncommon. He points out also that nephrydrosis from the pressure of the distended gall bladder on the pedicle of the kidney in such cases is probably not very rare. He thinks the diagnosis must sometimes remain uncertain, even after an operation, intimating that in his own case the renal lesion might have escaped detection if, instead of making a lumbar incision, he had cut down upon the gall bladder primarily.

Endotheliomata of the Bones. By M. Léon Thévenot.

Deutsche Medizinal-Zeitung, June 14, 1900.

Arsenic as a Diagnostic Agent in Epithelial Carcinoma.—Dr. C. Trunecek says that when a cancer is treated with arsenic in a solution of alcohol and water (three fourths of one per cent.), the carcinomatous tissue becomes covered with a dark brown or black crust, which is so adherent to the cancer that it can not be removed without causing injury or bleeding. The crust produced by the solution separates easily from normal tissue, but upon these the characteristic crust can not be evoked, even though pure arsenic is employed. In cases in which the microscope does not give positive results, this is a valuable diagnostic measure. The author repeats his faith in this method of treatment of accessible cancers.

Deutsche Medizinal-Zeitung, June 18, 1900.

Acne and its Relation to Nasal Disease.—Dr. M. Berliner does not believe that diseases of the nose favor the development of acne or of other skin diseases of the face, as alleged by Sticher.

Die medicinische Woche, June 11, 1900.

Treatment of Dystrophy in Infancy.—Dr. W. Beuthner urges a careful examination to exclude or to find infantile disease. If the dystrophy arises from improper nourishment, a pure cow's milk must be found and given, properly diluted, at regular intervals. Pure air, proper clothing, and light, dry living rooms will soon bring about a change.

Psychiatry and Neurology in the Nineteenth Century.—Dr. Martin Brasch reviews the discoveries of the century in these branches.

Wiener medizinische Blätter, June 14, 1900.

When to Operate for Appendicitis.—Dr. F. Quervain says the time has passed when every case must be submitted to operation. He is inclined to agree with Dieulafoy that a medical treatment of the disease as such does not exist, but, he adds, every case must be judged on its merits and treated accordingly. (To be continued.)

Digitalis in Heart Disease. (Conclusion.)—Dr. Potain says digitalis is of little use in functional heart disease. Its most important use is in tachycardia, arrhythmia, in insufficiency of the contractile power or the tone of the heart muscle, in anasarca, and peripheral congestions. When tricuspid insufficiency exists, it is the best of all drugs, but it must be given in small doses to avoid too great an increase in blood pressure in the pulmonary circulation.

Meat Poisoning. By Dr. Adolf Hoff.

Wiener klinische Wochenschrift, June 14, 1900.

Agglutinating Power of Maternal and Fœtal Blood. —Dr. Josef Halban has made experiments with the blood of puerperal women and their infants. He finds there is a difference in the amount of agglutinin and lysin in the respective fluids. The former being derived from the globulin of the blood, it is clear that, since the quantity differs, the chorionic epithelium possesses a differentiating power. The agglutinin is, however, derived from the maternal blood, probably as much finding its way into the fœtal circulation as is necessary for the nourishment and vitality of the fœtus.

Actinomyces.—Dr. Carl Sternberg has succeeded in cultivating the mold of actinomyces anaerobically in the form of smaller or larger yellowish masses. He concludes, from comparison with the results of others, that human actinomycetes exist in at least two distinct cultural and biological forms, which produce, however, the same anatomical lesions.

An Anaerobic Streptococcus.—Dr. Carl Sternberg describes a new form of streptococcus which grows anaerobically.

Bathing Newborn Infants.—Dr. H. Kowarski has studied this question and concludes that the daily bath of the young infant should be given, since he finds it does not interfere with the mummification of the cord, it does not foster umbilical infection, it does not interfere with the natural gain of the child in weight, nor does it foster the evolution of infectious disease.

Wiener klinische Wochenschrift, June 21, 1900.

Symptomatology of Arterio-sclerosis in the Aged.—Dr. Friedrich Friedmann finds that the intensity of perception by auscultation of the heart tones as heard over the back changes its position with age. It moves with the involution of age from the interscapular space downward. In patients suffering with arterio-sclerosis, the point of loudest auscultation lies in the line connecting the angle of the left scapula with the spine of the seventh dorsal vertebra, or even lower than this He ascribes this phenomenon to the normal sinking of the heart to the left and downward in old age and to the improved acoustics of the senile chest due to its thinness.

Radiographic Relations of Pathological Conditions of the Aorta. By Dr. G. Holzknecht.

Thorax of "Metal Pressers."—Dr. M. Sternberg says the work of "metal pressers" consists of pressing a piece of copper on to a rotating model, the tool being heavily pressed against the right side of his thorax. The right side of the chest, from the fifth rib down, is found to be compressed and bulging forward, and the right nipple lies lower than the left. The muscles of the right side, especially the latissimus dorsi, are hypertrophied.

New Drugs in the Treatment of Phthisis.—Dr. Julius Pallah says that feisan is an albuminous compound of iron, is soluble in water, and is tasteless. It is absorbed from the intestines, passing the stomach unchanged. It is especially useful in phthisical patients with anæmia and anorexia. A teaspoonful of feisan is stirred up in milk and is given three times daily before meals. It may also be given with the meal in coffee, soup, or cocoa.

Wiener klinische Rundschau, June 17, 1900.

Disturbances of the Upper Respiratory Tract in Severe Scarlatina.—Dr. E. Kronenberg speaks of the tendency toward necrosis of the mucous membranes in severe scarlatina. Purulent rhinitis following an ulceration is not uncommon. This may become gangrenous and may spread to neighboring parts and organs. (To be continued.)

Acute Intestinal Obstruction caused by an Ovarian Cyst.—Dr. S. G. Schalita reports two cases of acute obstruction of the intestine by compression by ovarian cysts.

Diagnosis of Functional and Organic Diseases of the Eye. By Dr. Lilbrecht.

Berliner klinische Wochenschrift, June 4, 1900.

Typhoid Fever.—Dr. Rumpf, in a scholarly essay, considers the advances in the knowledge of typhoid fever during this century. (Continued article.)

Alcohol as a Disinfectant.—Dr. Salzwedel and Dr. Elsner have found by experiment that a five-per-cent. alcoholic solution has a bactericidal action upon threads inoculated with pus containing staphylococci. The antiseptic influence of the alcohol is increased by warmth, but the heat must not exceed 76° F. The authors attribute the bactericidal effect of alcohol to its dehydrating properties and its chemical instability, as well as an innate poisonous effect on bacteria by which their facility of development is impaired.

Conception of the Phrase "Gastric Dilatation" in German Literature since 1875. By Dr. Arthur Hesse.

Measure of the Strength of the Cardiac Sounds as a Diagnostic Aid. By Dr. H. Bock.

Influenza and Chronic Heart Diseases. (Conclusion.)—Dr. Schott concludes from his study of the subject that epidemics of influenza are followed by an increase in the number of chronic heart diseases resultant from acute endocarditis.

Berliner klinische Wochenschrift, June 11, 1900.

Inflammations and Displacements of the Uterus.—Dr. J. Veit, in a scholarly historical review of these subjects, says that the prophylaxis of some gynæcological affections, including the topics of his paper, depends upon a proper education of young women, in a proper conception of the social status of woman, in a diminution of gonorrhœal infection, and in the thorough training of physicians.

Epidemiology of Malarial Infection.—Dr. E. Grawitz urges a study of the epidemiology of malaria as a means of prophylaxis.

Removal of Cataracts in Persons with One Eye.—Dr. Fritz Mendel advises in such cases a preliminary iridectomy, followed in a few weeks by the extraction of the lens.

After-treatment of Operations on the Eyeball. By Dr. G. Gutmann.

Typhoid Fever. (Conclusion.)—Dr. Rumpf says the notion of intestinal antisepsis in the treatment of typhoid fever is not irrational, but is not yet to be depended upon. The main elements of the treatment, a specific cure not being known, is to sustain the patient as much as possible and to prevent harmful influences from reaching him. An airy room, light bedclothing, care of the skin and accessible mucous membranes, and a light diet which shall not harm the intestines, are important elements, as well as the administration of plenty of fluids and the reduction of high temperature with its attendant complications. Fluid diet, milk and its modifications, and soups, with an occasional egg and whisky, are well borne and help to offset the enormous nitrogenous waste caused by the fever. The fluid diet must be maintained for a week after a normal temperature has been reached as well as during any relapse. The author favors the Brandt method of baths for the reduction of temperature, and is opposed to the use of antipyretics.

Conception of the Phrase "Dilatation of the Stomach" in German Literature since 1875. By Dr. A. Hesse. (Conclusion.)

Riforma medica, May 24, 1900.

Grafting of the Carotids. By Dr. Davide Fieschi. —The writer reports the results of experimental operations upon fifteen dogs. These operations consisted in clamping and cutting the common carotids, the right at its bifurcation, the left at the root of the neck, and suturing the vessels after invagination of the one end into the other. The author succeeded in doing this in all the dogs without injuring the health of the animals in any way. He draws the following conclusions as to the practicability of grafting arteries: 1. It is possible to graft one important arterial trunk into another. 2. The functional results, both immediate and permanent and subsequent, are perfect. 3. The method of suture with invagination seems to be the most rapid and safe means for this purpose. By this method the contact of the sutures with the blood current is avoided as long as possible, and the result is immediate and definite.

The point of grafting is strengthened because at this point the wall of the artery is double. 4. The grafted vessels live and serve as well in the new position as in their natural place.

Riforma medica, May 26, 28, and 29, 1900.

Uterine Fibroids. By Dr. G. Zennaro.—The writer considers the indications for surgical intervention in myofibromas of the uterus. He reports five cases which he has operated within the past three years.

Riforma medica, June 1, 2, and 4, 1900.

Systolic Retraction of the Apex. By Dr. E. Benvenuto and Dr. G. Baldani.—The writers report a case in which the retraction of the apex was due to adhesions of a preexisting pericarditis. Their conclusions are as follows: Alterations in the expansibility of the left lung are not always sufficient to produce systolic retraction of the apex, and the true cause of these retractions as a rule are intrapericardial and extrapericardial adhesions.

Riforma medica, June 5 and 6, 1900.

The Use of Iodine in the Treatment of Typhoid Fever. By Dr. A. Cavazzani.—Iodine and iodides have been used in typhoid fever by Sauer as far back as 1840, but a number of reports on the subject drew the attention of the writer to this mode of treatment in 1892. The present article is based upon an experience with sixty-two cases of the disease treated with the above-mentioned drugs. First a dose of calomel or of sulphate of sodium was administered. A liquid diet, consisting as far as possible of milk, was ordered. Alcoholic stimulants and ice by mouth were allowed in rather liberal quantities. The hydrotherapy consisted only exceptionally of cold baths, but ice-bags were used freely. A small one was kept on the head of the patient during most of the time, and a larger one upon the abdomen, whenever the temperature was high. Half a gramme of salol was given internally three times a day as an antipyretic and intestinal antiseptic, usually combined with antipyrine, one or two grammes daily in divided doses. This combination was so effective that it was employed in many cases throughout the illness.

For the administration of the iodine the writer prefers a sweetened and diluted Lugol's solution. Five to eight centigrammes of metallic iodine (twenty to twenty-five drops of the tincture) with a gramme of potassium iodide in half a litre of water sweetened with thirty to forty grammes of syrup were given daily in fractional doses. The medicine may be mixed with milk. On the first day it is better to give but half the dose, and in rare cases the dose given above may be exceeded. The use of iodine must be continued for several days after convalescence has set in. The results of his treatment were very encouraging. All the patients recovered in spite of the fact that many of them were cases with complications. The iodine treatment seems to shorten the duration of the illness somewhat. Relapses occurred in two cases. The iodine treatment seems to prevent specially the involvement of the nervous system, as no delirium was noted in any of the patients. In no case were there symptoms of iodism, and only three patients lost their hair.

Vratch, May 13, 1900, O. S. (May 25, N. S.).

Simultaneous Ligature of the Right Common Carotid and Right Subclavian Arteries in Aneurysm of the Innominate. By Dr. B. A. Tille.—The author calls attention to the fact that palliative treatment is now less frequently employed in cases of aneurysms than formerly. Most methods that have been proposed are useless, and some of them even dangerous. Simultaneous ligature of the carotid and subclavian has only been performed once in Russia—namely, by Beyer in 1882. The present case is therefore the second in the annals of Russian surgery. After an observation of the case for six months after the operation the writer is able to report complete success. He believes that the procedure mentioned above is the most rational method of dealing with aneurysms of the innominate. It should be employed more frequently, and is not as dangerous as appears from theoretical consideration.

On the Clinical Features of Sarcomas of the External Genitals of the Female. By Dr. V. N. Orloff.—The external genitals are the site of malignant growths less frequently than any other part of the sexual system of the female. The author briefly reviews the literature of the subject and reports a case of sarcoma of the vulva which had been taken for a Bartholinian cyst before operation on account of its great softness. The source of the growth was probably the subcutaneous connective tissue. The removal consists simply of enucleation or, if pedunculated, of ligature of the pedicle and resection. The vagina had better be tamponed after the operation to prevent formation of a secondary hæmatoma.

Concerning the So-called Hereditary Tremor. By Dr. I. I. Ivanoff.—A report of two cases of hereditary tremor of various parts of the body and a consideration of the cases reported in literature.

The Pharmacology of Nirvanin. A preliminary communication by Dr. V. K. Didrichson.—The writer, having studied the physiologic effect of nirvanin on animals, presents the results of his work in the following statement: Nirvanin is by no means a perfectly harmless substance. The dosage must be regulated with more care than has been done by other writers.

Concerning the Question of the Study of Ancient Languages in the Secondary Schools. By Dr. D. N. Jbankoff.—A certificate of graduation from a classical "gymnasium," or secondary school, is required in Russia for admission to the study of medicine. A movement has been started to permit the admission of graduates of secondary schools with a "scientific" course, including modern languages and about two years' study of Latin, to the medical schools. The writer discusses the question, and concludes that ancient languages, as they are taught in the Russian gymnasia, are at the root of the neurasthenia which is so frequent in the pupils of the classical schools, and are in reality a waste of time that could be with advantage employed in the study of more useful subjects that give as good mental gymnastics as Latin and Greek, namely, mathematics, natural sciences, and modern languages.

On the Central Endings and Connections of the Seventh Pair of Cranial Nerves. A preliminary communication by Dr. N. A. Vyrouboff.

A Wound of the Left Common Carotid Artery by a Piece of Swallowed Bone. By Dr. V. V. Ditman.—The patient was a man, aged twenty-four years, who had swallowed a piece of chicken bone four days before admission. When he had swallowed the bone he felt it sticking in the œsophagus, and as all attempts to swallow it down were futile, he asked a companion to push down into his throat a large piece of meat, with the idea that this meat would push down the bone into the stomach. This manœuvre was accordingly performed with apparent success. For the next few days the patient took only liquid food and felt a pain on swallowing, but did not feel any pain in the œsophagus; on the contrary, he felt acute pains in the stomach, which proved to his satisfaction that the bone had been swallowed into that organ. Soon a swelling appeared on the left side of the neck, which gradually increased.

A few days later he expectorated some blood clots and a piece of chicken bone. Several hæmorrhages of considerable amount followed. The face became pale and the extremities cold; there were nausea and bloody stools, vertigo, rapid and feeble pulse, collapse and death two days after the first hæmorrhage. The autopsy showed the presence of a wound of the left carotid about four centimetres below the upper edge of the thyreoid cartilage, opposite a corresponding wound in the wall of the œsophagus. The writer emphasizes the danger of pushing down swallowed foreign bodies into the throat. The bone evidently served as a stopper in the wound, for the patient lived almost eight days after he had swallowed the foreign body. The only possible treatment would be ligature of the common carotid, which at best gives but poor chances for recovery.

On the Restoration of Hearing in Deaf-mutes. By Dr. M. V. Bogdanoff-Berezovski.—Within recent years a number of observers have studied the question of the capacity for perception of sounds in deaf-mutes. Urbantschitsch has devised a system of exercises with the object of cultivating the imperfect hearing of deaf-mutes, for it has been found that, properly speaking, absolute deafness does not exist in these individuals, although the relative degree of deafness varies considerably. The exercises consist simply in pronouncing near one ear of the pupil a vowel sound—for example, *a*—with considerable force. The ear which is least affected is used at first, and it was noticed that if the opposite ear be stimulated at the same time by another sound near it, the first can hear the sound produced in its proximity with greater clearness. At first the vowels are taught, then the consonants, then whole words. Finally a small stock of words enables us to converse with the pupil. In young children musical toys are used, and pictures illustrating the words taught are shown while the words are pronounced in a loud and distinct manner near the "best" ear of the pupil. Since Urbantschitsch other physicians and teachers of deaf-mutes have experimented with this or similar methods, and the results are encouraging. The author gives his own experiences in two schools for deaf-mutes in Russia. He urges the admission of deaf-mute children into the kindergartens where normal children are taught, as the association with the latter will be beneficial to these outcasts.

Chirurgia, April, 1900.

Acute Suppuration of the Nasal Sæptum. By Dr. P. V. Ilyine, Moscow.

A Case of Primary Echinococcus of the Pleural Cavity. By Dr. N. K. Choline.

On the Treatment of Alveolar Echinococcus of the Liver. By Dr. G. I. Volyntseff.—The writer reports two cases of this disease, and draws the following conclusions: 1. In cases of multilocular cysts excision of a large portion of the sac wall and opening of the cavity are necessary if we desire to treat the condition further. 2. After opening the cysts solutions of formalin are useful in the after-treatment. 3. Hot alcoholic solutions will probably act better than cold aqueous solutions. 4. Endosmosis and dialysis should be studied in relation to the parvovesicular echinococcus cysts.

A Case of Elephantiasis of the Scrotum and Hydrocele. By Dr. V. N. Rosanoff.

Four Cases of Extra-uterine Pregnancy. By Dr. I. Disky.—All the four cases were tubal pregnancies. The author emphasizes the necessity of early operative interference in all cases of extra-uterine pregnancy, as only in the early cases can the fœtus and its envelopes be removed entirely. He reserves the vaginal route to those cases in which the tube is movable, as testified by the bimanual examination. In all other cases cœliotomy is to be preferred.

Klinitchesky Journal, May, 1900.

C. C. Korsakoff, director of the psychiatric clinic of the University of Moscow. Obituary.

Disturbances of Sweat Secretion in Bright's Disease. By Dr. N. A. Kabanoff.

A Case of Diabetes Mellitus in a Child aged Nine Years. By Dr. G. K. Tachtamyscheff.

Sanatoria for Consumptives in Russia. By Dr. F. A. Getie.

Miscellaneous.

Broncho-pneumonia as a Cause of Cachexia in Infantile Gastro-enteritis.—M. Marfan (*Journal de médecine Interne*, April 1st; *New Orleans Medical and Surgical Journal*, June) records the case of a female child, four months old, bottle-fed every two hours during the day and twice during the night with cow's milk diluted with only a tablespoonful of water to the pint. This diet naturally brought on vomiting, green stools, erythema of the buttocks, flabby belly, elongation of the bowels by paralysis of the muscular coat, and beaded ribs. The child was not only atrophied, but positively cachectic. There was no aphthous stomatitis. At the left base were fine mucous râles. On this case M. Marfan remarks: "Broncho-pneumonia gravely imperils the days of this child, as it does all sucklings fed in such a lamentable manner. Broncho-pneumonia is the only cause of their cachexia. A child whose diet is incorrect ceases to gain weight, but it is not cachectic. To become so its tissues must be dehydrated, its fontanelles sunk, its skin flabby, and all these changes are not brought about under the influence of bad alimentation alone. When we see a child who not only lacks the weight of its age, but presents a flabby skin, depressed fontanelles, and dehydrated tissues, we may be sure that it has broncho-pneumonia. The author bases this view on the following considerations. He says: "I have performed a very large number of autopsies of cachectic sucklings and kept a record of them during seven or eight years. I found that it was impossible to fix any relation either between the lesions of the gastro-intestinal tract and the cachexia observed during life, or between those lesions and the vomiting. On the other hand, I always met lesions of broncho-pneumonia, condensation of both bases into a tissue analogous to that of the spleen, and pus filling the smaller bronchial tubes. During life this broncho-pneumonia had never been even suspected. The temperature, high one day, low the next, even lower than the normal, was not suggestive; moreover, there were absence of dyspnœa and hardly any cough. Enlightened by these anatomo-pathologic facts, I subsequently found that in such cases broncho-pneumonia revealed itself only by a weakened respiration at the base, with fine mucous râles and no constitutional symptoms whatever.

"To-day, in a weakened child, I firmly base my diagnosis of broncho-pneumonia on these insignificant signs, and I am not mistaken. I am still proceeding with my researches on this line."

Appropriate diet, warm baths, and the injection, rectal and subcutaneous, of artificial serum is the treatment recommended.

The Healing of Abscess Cavities.—Dr. M. B. Hutchings (*Atlanta Journal-Record of Medicine*, April) lauds the frequent application of flaxseed poultices made with about three-per-cent. carbolized water directly to the abscess cavity in preference to packing the cavity with antiseptic gauze, which method he terms a painful and troublesome procedure. The application of flaxseed poultices, except to the unbroken skin, for mere purposes of moist warmth seems a return to the lack of surgical cleanliness of the preaseptic surgery. Their place can be advantageously filled by several layers of antiseptic gauze wrung out in hot antiseptic solutions and covered with a layer of dry gauze and a piece of oil silk or gutta-percha tissue a little larger in every direction than the gauze, to prevent evaporation and retain the moist heat.

The Blood Pressure in Sleeplessness and Sleep.—Dr. Lewis C. Bruce (*British Medical Journal,* June 23d) read before a recent meeting of the Edinburgh Medical Society some observations made on the inmates of Murthy Asylum on the general blood pressure in sleeplessness and sleep. The instrument used was Barnard and Hill's sphygmometer, and Hill's statement that "the normal general arterial pressure in the horizontal posture equals about a hundred and ten millimetres of mercury" was assumed to be correct. The first points investigated were: 1. Are there any unusual conditions of blood pressure which are associated with sleeplessness in mental disease? 2. What changes occur in the blood pressure when sleep is induced in these cases by drugs? The cases ranged themselves under two classes: 1. Sleeplessness with high blood pressure (anything above a hundred and thirty millimetres of mercury). 2. Sleeplessness with low blood pressure (anything below a hundred and ten millimetres of mercury). The drugs used to induce sleep in these patients were paraldehyde, sulphonal, trional, and potassium bromide. In 1, paraldehyde in large doses (two drachms) was found to be the most certain sleep producer. Sulphonal came next, followed by trional; potassium bromide was unsatisfactory. When sleep was induced by any of these drugs, the blood pressures always fell to a hundred and ten or below a hundred and ten millimetres of mercury during sleep. In 2, paraldehyde in large doses of two drachms acted as a brain excitant, tended to raise the blood pressure, and satisfactory sleep was never obtained. After small doses, however—from fifteen to thirty minims—these same patients slept well. In this class trional in twenty-grain doses and then sulphonal were the most satisfactory drugs. Experiments were then made with erythrol tetranitrate in doses of one grain daily in cases suffering from sleeplessness with high blood pressure, the object being to induce sleep by artificially lowering the blood pressure. Out of nine cases, three were immediately and permanently benefited, three were very temporarily relieved, and in the remaining three cases the drug had no effect even in doses of two grains daily. A second series of observations was made upon convalescent patients in order to throw light upon the following questions: 1. Is sleep possible with blood pressures of a hundred and thirty millimetres of mercury or higher? 2. What relation does the morning blood pressure bear to the evening pressure when a person is sleeping well? 3. Are there any differences in the blood pressure of the same person asleep under the action of drugs and sleeping naturally? The results were as follows: 1. Sleep is possible with high blood pressure, but the pressure always falls to a hundred and ten, or about a hundred and ten, millimetres of mercury after the condition of sleep is established. 2. The general blood pressure is, as a rule, higher in the morning than in the evening in a state of health, and the reverse of this holds good in some cases of sleeplessness. 3. In the drug sleep induced by paraldehyde the blood pressure falls at its lowest, about ten millimetres of mercury below the habitual blood pressure of the same person when sleeping naturally. As the effect of the drug passes off the blood pressure rises again, and eventually passes to the blood pressure habitual to that person in natural sleep; in short, drug sleep does pass in some cases into natural sleep.

The Electrical Treatment of Vesical Paralysis due to Lesions of the Central Nervous System.—Dr. Denis Courtade (*Archives d'électricité médicale,* January 15th) concludes a paper as follows: Three indications present themselves. 1. To act upon the muscle itself. For this the bladder is to be moderately distended with physiologic salt solution, about seven to one thousand, and a special electrode, or even a metallic stylet introduced into the interior of the catheter through which the bladder is filled, is used as the vesical excitant. Another electrode of zinc covered with chamois leather moistened in hot water is placed on the perinæum or the lower part of the abdomen. An induced current from a coarse coil with slow intermittences is allowed to pass for five minutes. The intensity should be such as can be easily tolerated by the patient. A galvanic current of from ten to fifteen milliampères may also be made use of with intermissions and frequent reversals. In the latter case it is important that no portion of the metal electrode should touch the bladder, for the galvanic current, unlike the faradaic, may produce troublesome eschars. 2. To act directly upon the nerve centres. An ascending and descending galvanic current should in this case be made to traverse the whole length of the spine, one pole being fixed on the perinæum and the other passed up and down the dorso-lumbar region. 3. To act reflexly upon the nerve centres. A faradaic current with fine coil and rapid intermittences should be used. The positive pole is to be placed on the perinæum while the negative traverses superficially the dorso-lumbar and abdomino-crural regions. The intensity should be sufficient to cause the patient slight pain. Static electricity may also be employed in the form of sparks drawn from the whole length of the dorso-lumbar region of the patient, seated upon an insulating chair and placed in connection with the negative pole of the machine.

"Gapes" in Poultry and Diphtheria.—Dr. A. C. Dutt writes to the *British Medical Journal* for June 23d, apropos of a communication on this subject in the *British Medical Journal* for June 16th, as follows: "A few years ago a young lady patient of mine contracted diphtheria. She had been staying at a farmhouse where many of the poultry were dying with a mysterious throat complaint. She had nursed and even kissed one of the hens suffering from the disease. On her return home, after a few days' malaise, clinically typical symptoms of diphtheria supervened. To be sure of the diagnosis, I sent a portion of the membrane to the Clinical Research Association, and they pronounced the case as one of true diphtheria. The patient recovered, but persistent anæmia of several weeks' duration followed convalescence."

Strangulation of the Intestines by the Fallopian Tubes.—P. C. Fenwick (*British Medical Journal,* January 13th; *Montreal Medical Journal,* March) relates the following case: The patient, aged fifty-two, was admitted to hospital exhibiting the usual signs and symptoms of intestinal obstruction. On opening the abdomen half an hour later, several feet of small intestine protruded through the opening and the bowel had to be evacuated through a linear incision before it could be returned or the hand passed into the abdomen. A band was found in the pelvis tightly grasping a mass of small intestine. The band was divided between two ligatures and the liberated bowel brought to the surface for inspection, but was found to be merely congested and so was replaced. The patient did well for the first ten days, but then died quite suddenly. Post mortem, the constricting band was found to consist of the left Falloppian tube and ovary, the end of the tube having become adherent to the side of the pelvis, leaving a round opening through which several coils of intestine had passed and become strangulated.

Hyrgolum. — The *Medical Review* (London) for April describes hyrgolum as an allotropic form of solid mercury, fairly soluble in water, only a small insoluble residue remaining, and insoluble in alcohol and ether. The aqueous solution is neutral and entirely free from caustic properties. It is of a dark, almost black, color, transparent to transmitted light, but strongly fluorescent and hence opaque to incident light. According to Werler (*Berliner klinische Wochenschrift*, No. 42, 1898), from a pharmacological point of view, the pure metal soluble in water possesses certain marked advantages over other combinations of mercury; notably its mild, non-caustic physiological action, the possibility of a more exact dosage of the drug, the avoidance of toxic by-effects, and the assurance of a rapid and certain absorption by the human organism. Hyrgolum may be used in various forms for therapeutic purposes: as an ointment, for inunction treatment; as a pill, for internal administration; as a tablet, for the preparation of extemporaneous solutions, and for baths in pædiatric practice; and as a plaster, for local application to glandular tumors and ulcerations. The ten-per-cent. colloidal (mercurial) ointment is especially useful. Not only may its action be definitely determined, but absorption is said to be much more rapid than when the ordinary mercurial ointment is used. It does not irritate the skin, or cause mercurial eczema. The colloidal mercury ointment has been found to be especially valuable in the treatment of constitutional syphilis.

Staining an Anal Fistula Previously to Operation.— Stevenson (*Southwestern Progressive Medical Journal*, May) recommends passing a probe into the fistula by the external opening till it touches the index finger of the left hand in the rectum. The probe is then withdrawn and pressure used to close the internal orifice of the fistula. Then with a small syringe inserted into the external aperture a strong potassium permanganate solution is injected with some force, held for one minute, and allowed to drain away externally. The fistula is then laid open and all the stained surface removed by dissection. Besides aiding in the location of the tract and of ramifications, the permanganate reenforces the ordinary disinfectant measures for the destruction of pus by peroxide of hydrogen, etc.

Bacteria and Elevation of Temperature during the Puerperium.—Dr. K. Franz (*Centralblatt für Geburtshülfe und Gynäkologie; Obstetrics*, May) sums up his investigations as follows: 1. Slight elevations of temperature during the puerperium are usually caused by saprophytes which gain access to the uterine cavity. 2. The saprophytes themselves do not cause fever. It develops only when the outflow of the bacteria-containing secretion is prevented. 3. The saprophytes which are found in the uterus in cases of slight elevation of temperature are probably identical with the saprophytes of the vagina. 4. Internal examination is usually a factor in causing slight elevations of temperature only in so far as it causes vaginal wounds which serve to further the development of the bacteria which are always present. 5. Slight elevations of temperature occur oftener by half in primiparæ than in multiparæ. 6. Diminishing the duration of the third stage increases the number of slight elevations of temperature. 7. Long duration of labor, long duration of the expulsive stage, and premature rupture of the membranes have but little influence in the production of these cases.

The Permanence of Electrolytic Results in Stricture of the Urethra.—Dr. Chassaignac (*New Orleans Medical and Surgical Journal*, May), at the Louisiana State Medical Society's meeting in April, stated that after four years' experience of electrolysis in urethral stricture he considered its results superior perhaps to those obtained from internal urethrotomy, and in exemplification cited the two following cases:

A physician was operated on four years ago by electrolysis, and a tight stricture opened by means of the electrolyzer at one sitting. A few days after, Dr. Chassaignac passed a large bougie without any difficulty. He passed a bougie only one other time previous to his departure. Dr. Chassaignac heard from his patient once or twice afterward, reporting that he was doing very well. He came to the doctor's just about three weeks ago, not having been to the city since. Dr. Chassaignac was surprised to learn that notwithstanding instructions, and what the patient knew ought to have been done, he had not put anything into his urethra from the time he left. He remembered the size of the bougie used. Dr. Chassaignac took the identical size and passed it through the urethra without any difficulty. That was a striking illustration, and the speaker doubted whether one could expect such a result after a cutting operation.

The other case was that of a layman who lived in Yazoo City, Mississippi, and was operated on at about the same time as the former. He came to see Dr. Chassaignac two years after the operation, not having seen any one in the meantime. A bougie of the same size as the first one was passed. The patient came to the doctor's office two weeks ago, after an interval of two years, again not having had anything passed through his urethra, and a larger bougie than the previous one was then passed by him.

The Ætiology of Deflected Sæptum Nasi.—Dr. J. Homer Coulter (*Chicago Clinic*, May) arrives at the following conclusions: 1. In many cases, though not invariably, rhinitis is the cause and not the result of a deflected sæptum. 2. That simple traumatism is not, as usually understood, the most frequent cause, but that it is frequently an important factor, especially when the deflection is found in very young patients. 3. It is not found in infancy because the turbinate prominences have not usually sufficiently developed to produce an effective stenosis. 4. If, as some assert, it is the result of hypernutrition, why do these same individuals operate before there is complete development, and yet not expect a return of the condition?

Dorsal Presentation of the Child.—Dr. Alberto S. Bustamente (*Revista de Medicina y Cirugia de la Habana*, February 25th) arrives at the following conclusions: 1. The observed cases of dorsal presentation are sufficiently numerous to justify its acceptance as a recognized variety of trunk presentation. 2. From the view-point of the conduct of the case the dorsal variety is not of importance, but only from that of diagnosis. 3. Spontaneous evolution in premature births and with appropriate conditions may be favorably considered, but the disposition is always to practise embryotomy, which is the procedure of election when version is impossible. 4. The expulsion of the fœtus folded on itself is probably the natural method of delivery in the dorsal variety.

Premature Rupture of the Membranes.—Dr. Gustav Kolischer (*Memphis Medical Monthly*, June) says that a complication causing much inconvenience in parturition is the premature rupturing of the membranes, which prevents the preparatory distention of the cervix brought about normally by the advancing of the membranes filled with amniotic fluid.

This is more keenly felt in primiparæ or in cases of oblique position. The labor is an extremely protracted one, and correcting or other operative interferences are rendered exceedingly difficult. An expedient means in such cases is the application of a colpeurynter, which unhappily is too seldom made use of. The rubber bag should not be filled to its full capacity, lest it break under the pressure of the pains. Pulling the attached tube in these cases is not indicated; the colpeurynter is solely left to the influence of the pains. The presence of the colpeurynter inside the uterus produces effective pains, while at the same time this extraneous body promotes a serous moistening of the cervix. The colpeurynter acts as a substitute for the membranes, and by its acting like a wedge the cervix becomes gently stretched and dilated. After a while the bag drops into the vagina, and nothing is in the way of the further development of the second parturient stage.

Atropine in Hyperchlorhydria. — Dr. D. Antonio Lloret Mingot (*Rivista de Ciencias Médicas de Barcelona*, April 10th) sums up the conclusions of his work as follows: 1. Hyperchlorhydria is not a morbid entity but only a symptom supervening on and accompanying various morbid conditions of the stomach and other organs. 2. It is due to an anatomical lesion situated in the secretory apparatus of the gastric juice, being, when it resides in the peptic glands, primarily of a congestive character, but later becoming inflammatory in consequence of the structural condition of the gastric mucosa. 3. Atropine opportunely administered before meals causes as its first, constant, and characteristic effect a depression in the secretion of the gastric juice shown by the diminution in the quantity of free hydrochloric acid evident in analyses and by the lesser quantity of chlorine in combination with albuminoid substances. It must therefore be considered as a moderator of gastric secretion. 4. This action manifests itself with constancy whatever be the anatomical condition of the gastric mucosa. 5. At the expiration of a period varying between from two to six days, counting from the administration of the first dose of the alkaloid, the moderating effects are lost, the hydrochloric acid in a short time recovering its former unrestrained output. 6. The method of introduction of the drug, whether hypodermically or per os, is indifferent, provided that the absorbent capacity of the stomach is intact. 7. A convenient dose of the sulphate of atropine is, generally speaking, one sixty-fifth of a grain, administered thirty minutes before food. When the hydrochloric secretion is excessive this dose may be insufficient, in which case it is necessary to augment it in proportion to the intensity of the hyperchlorhydria. 8. During the course of the treatment, derangements, both motor and sensory, supervene at times, so severe occasionally as to compel the suspension of the drug. 9. From these experiences the author arrives at the definite opinion that atropine in this condition should be relegated to oblivion under the foregoing circumstances, since, in view of its great inconveniences, it only augments the pile of useless remedies.

Collodion in Pruritus Ani, Mosquito Bites, Epistaxis, and Enuresis.—Dr. D. W. Samways writes to the *British Medical Journal* for June 9th as follows: In the *British Medical Journal* of November 21, 1896, I called attention to the value of collodion in the treatment of *pruritus ani*, in which, I believe, it is always effective, at least temporarily. In the after-treatment of *mosquito bites* I have found no application so satisfactory as that of collodion. A dewdrop of contractile collodion is spread on the raised red bite. The itching at once disappears, and with the contraction of the collodion the swelling flattens down and becomes comparatively bloodless, the collodion soon being alone apparent. In *epistaxis*, after plugging the anterior nares, the efficacy of the plug may be greatly increased in troublesome cases by sealing the nasal orifice with a little cotton wool and collodion. The plug thus supported is but little affected by coughing and straining. Collodion has been employed in *enuresis*, the orifice of the meatus being closed by a film of collodion painted across it, compelling the child to wake to pass water.

The Treatment of Atonic Ulcer with Hot Water.—Dr. Kindler (*Centralblatt für Chirurgie*, March; *St. Paul Medical Journal*, June) cites his experience of years in the Moabite Hospital of Berlin in the treatment of chronic atonic ulcers of the legs, finger ulceration in syringomyelitis, syphilitic ulcers of tertiary variety, phagedænic chancres, etc., with the use merely of hot water applied with an irrigator. His method consists in using two quarts of water as hot as can be borne for from one to three times daily from an elevation of six or seven feet. He says that no plan of treatment has given him such excellent results, and it has brought about healing in a much shorter time than by any other method.

The *modus operandi*, he says, is first the increasing of textural activity and thus the bringing about of a tonic effect of the tissues; secondly, the stimulation of the terminal filaments of the nerve supply and thus, by a reflex action, the production of increased activity of the trophic nerves.

Mercuriol; a New Preparation of Mercury.—Aohmann, of Stockholm (*Archiv für Dermatologie und Syphilis*, Band xlviii, Heft 1, 1899; *Giornale italiano delle malattie veneri e della pelle*, fasc. iv, 1899); has made a series of encouraging researches into the therapeutic value of mercuriol. Mercuriol is a grayish powder containing forty per cent. of metallic mercury in a state of fine amorphous subdivision. No globules are visible even under a power of two hundred diameters. Its preparation is based upon the fact that amalgams of mercury with the alkali metals and with lithium, aluminum, and magnesium are susceptible of the finest subdivision by means of any indifferent substance, whether the substance is a powder, semifluid, or fluid. The mercury of this amalgam constitutes a combination but slightly resistant and easily liberated, while the amalgamated metal, by the action of air or vapor, is transformed into an oxide or oxyhydrate. The author obtains mercuriol by a mixture of amalgam of aluminum and amalgam of magnesium brought to a high state of subdivision by mechanical trituration with chalk as the indifferent material. By the action of heat, air, and moisture the amalgam of magnesium and aluminum is easily decomposed, the magnesium and the aluminum are oxidized, and the mercury liberated. The subdivision of the mercury is thus notably augmented, and finally the particles of the amalgam are separated from the fresh substance resulting from the transformation of the aluminum and the magnesium into their respective oxides, thus preventing the coalescence of the mercury into large drops, whence the evaporating surface of the mercury becomes developed into mercuriol in proportion to the rapidity of oxidation of the amalgamated metals. Mercuriol is especially indicated for use by Welander's method in the treatment of syphilides.

The Effects and Dangers of Chloretone.—Dr. R. D. Rudolf (*Canadian Practitioner and Review*, June) summarizes the results of his investigations as follows: 1. Chloretone would seem, as has been found by Houghton and Aldrich, to be an ideal general anæsthetic for physiological work. There might be some doubt about the recovery of the animals, however, and this would limit its use to cases in which recovery is not desired. The preliminary administration of chloroform or ether might be used here, but this increases the risk, of course. 2. It has little or no effect upon the pulse, respiration, and blood pressure for hours, but eventually, if the dose is large enough, these become depressed and the animal dies, the heart stopping before the respiration. 3. Chloretone has a most marked and profoundly depressing effect upon the body temperature, lowering this more than any other drug with which we are acquainted, with the possible exception of alcohol. This depressing effect is evident before the animal is even drowsy, and is in ratio to the dose given. It may be partially prevented by keeping the animal very warm. 4. Any drug which can exert such an effect on the total heat of the body is one which requires to be used with great caution in medical practice. This is doubly important as the drug is very slowly got rid of, and we know of no antidote, with the exception, perhaps, of external warmth.

Lithiasis Preputialis. — Dr. Albert N. Blodgett (*Boston Medical and Surgical Journal*, June 21st) refers to a case of this disease first communicated by Dr. Alexander Louis, of Veleisa, Macedonia, to *La Grèce médicale*, No. 7, 1899. The report is translated by Dr. Blodgett as follows: "Lithiasis of the prepuce is extremely rare, and even in medical works only few cases are recorded. M. G., aged forty-five years, is the father of three children. He concealed his condition from motives of false modesty, until his sufferings became so great that this was no longer possible, and forced him to seek medical aid. The condition had lasted seven years. At first the pain was slight, but has continually increased to the present time. After some hesitation he allowed an examination, in which the following condition was disclosed: The prepuce had externally the form of a pear, and the entire penis that of a clock pendulum. The circumference was twenty-five centimetres. The organ was painful to the touch, the feeling to the finger being that of a bag full of sand. From the preputial orifice issued a constant flow of a mucopurulent fluid of fœtid, ammoniacal odor. The urethral orifice was red, and barely visible at the bottom of the preputial opening. A sound introduced beneath the prepuce at once came in contact with a large deposit of stones, which it was impossible to remove on account of the phimosis. The prepuce was incised to the extent of four centimetres, the stones removed, and the glans and prepuce carefully cleansed. The glans was deeply indented from the pressure of the calculi. Healing was rapid and complete. The number of stones, not reckoning the sandy detritus, was a hundred and ten, of which thirty reached the size and diameter of a pea, the others diminishing to that of a grapeseed. It is of interest to note that the patient during the whole time of his disease fulfilled his marital duties until very shortly before the operation, when the increasing pain prevented coitus."

Dr. Blodgett subjoins the following report of a case which came under his own observation: "A. B., a man, aged twenty-two years, single, of neurotic ancestry on his mother's side, and presenting certain stigmata of degeneration. He has always led a strictly moral life. At the age of eighteen, he was placed in an asylum on account of an onset of *folie de doute* accompanying, or closely following, puberty. He recovered after some months and has since attended to business in a large commercial firm. On examination there was found extreme phimosis of a greatly elongated prepuce. It was quite impossible to retract the foreskin to such a degree as to expose any part of the glans penis. The entire organ was small in relation to the development of the patient, and its proximal portion presented nothing peculiar. Its distal portion, however, was greatly enlarged, elongated, and pendulous, presenting roughly the appearance of a small pear, over which the prepuce was tightly extended, and at the end of which it was so contracted as to form only a narrow, purselike opening, perhaps half an inch in length. The opening was directed to one side, and on urination the stream was discharged at an angle from the penis, soiling the clothing of the patient. The swelling was very hard, unyielding, and pressure upon it caused much pain. A greenish, puriform discharge constantly issued from the opening, which was excoriated and painful. The discharge was ammoniacal and very offensive in odor. No cause could be assigned for the condition. The effect upon the patient was most depressing and was rapidly inducing threatening mental symptoms, similar to those for which he had been previously under Dr. Blodgett's care. Operation was advised, and at once accepted by the patient. The prepuce was laid open upon a director, and disclosed a perfect collar around the base of the glans, filling the sulcus, except at the location of the frenum, and prolonged upon the surface of the glans toward the meatus. This calcareous collar was perfect at the time of operation, but was unfortunately broken in removal. A suitable portion of the stretched and redundant prepuce was removed on either side, the flaps sutured, and treated with antiseptic lotions. Healing was quite uneventful and perfect."

Letters to the Editor.

"NORMAL" SOLUTION OF SODIUM CHLORIDE.

2404 Fourteenth Street, N. W.,
Washington, D. C., *June 26, 1900.*

To the Editor of the New York Medical Journal:

Sir: Kindly permit me a word as to the designation "normal salt solution," referred to in the letter of Dr. A. L. Goldwater published in the *Journal* for June 16, 1900.

In volumetric chemistry the term "normal," as applied to solutions of reagents, has a very definite and exact signification. A normal solution is "one containing in one thousand cubic centimetres an amount of the active constituent just sufficient to combine with or replace one gramme of hydrogen" (Billings). For monobasic acids and their salts (such as sodium chloride) a normal solution is one in which the number of grammes in the litre is equal to the molecular weight of the reagent. The molecular weight of sodium chloride is 58.37; a *normal* solution of sodium chloride is one containing 58.37 grammes to the litre of water. A solution of one tenth this strength, containing 5.837 grammes (in round numbers 6 grammes) to the litre, is a *decinormal* solution of sodium chloride.

A six-tenths-per-cent. solution of sodium chloride is almost universally in medical literature called a normal salt solution, but is in reality a decinormal solution. The general use of the designation normal for this solution is improper, incorrect, and contrary to the terms officially prescribed by the *United States Pharmacopœia*, 1890, and to the definite use of the term normal by chemists.

J. B. Nichols, M. D.

⁂ According to Professor Michael Foster (*Text-book of Physiology*), the normal saline solution employed by intravenous injection in cases of hæmorrhage and in physiological experiments consists of 75 parts of sodium chloride dissolved in 10,000 parts of water.

Book Notices.

Contributions to the Study of Medicine. Dedicated by his Pupils to William Henry Welch on the Twenty-fifth Anniversary of his Doctorate. Baltimore: The Johns Hopkins Press, 1900. Pp. vii–1066.

An extended review of this superb collection of monographs, which forms the volume dedicated to Professor Welch, is not only impossible in a short space, but uncalled for and entirely unnecessary. Even the eminent pathologist to whom the volume is inscribed may feel honored by having presented to him in commemoration of his fame such a group of papers representing the original labors of his pupils. The American profession may feel satisfied that, with such labors emanating from its laboratories, its scientific reputation is safe.

Physiology, pathological histology, surgical anatomy, histological research, experimental pathology, and bacteriology are here represented in papers of original research, which actually constitute contributions to the science of medicine. It would not be right to select certain articles by name out of the mass of readable and absorbing material; but, merely to show the extent and variety of the contributions, we shall copy a few of their titles: The Effects of Shaking upon the Red Blood Cells, by S. J. Meltzer; The Regeneration of the Crystalline Lens, by Robert L. Randolph; On the Muscular Architecture and Growth of the Ventricles of the Heart, by John B. MacCallum; A Rare Variety of Adenocarcinoma of the Uterus, by Thomas S. Cullen; The Origin, Development, and Degeneration of the Blood-vessels of the Human Ovary, by John G. Clark; Experimental Pancreatitis, by Simon Flexner; Endocarditis due to a Minute Organism, probably the *Bacillus influenzæ*, by Mabel F. Austin; Model of the Medulla, Pons, and Midbrain of a Newborn Babe, by Florence R. Sabin. While this list may give some notion of the great variety embraced in the contributions, it can not impart the flavor of scientific achievement, the scientific atmosphere that permeates the volume. Dr. Welch may well feel proud that he has trained men and women who can produce literature of this kind. We have had the opportunity of examining some of the foreign *Festschriften;* we recall none in which the sum total of human knowledge has been further advanced than by this one. These contributions will stand not only as classics in their respective divisions of medical science, but as superior representatives of American medical thought and training. Their secondary influence will be not only to foster further research in this country, but to inspire confidence and respect in the original work proceeding from our laboratories, in which Johns Hopkins has long been preeminent.

The frontispiece is a lifelike heliotype portrait of Professor Welch, drawn by Brödel. He and Becker have supplied the illustrations, which are of the same high character as has belonged to their former productions for the Johns Hopkins publications.

Diseases of the Genito-urinary System. A Thorough Treatise on Urinary and Sexual Surgery. By Eugene Fuller, M. D., Professor of Genito-urinary and Venereal Diseases in the New York Post-graduate Medical School, etc. New York and London: The Macmillan Company, 1900. Pp. ix–774. [Price, $5.]

The first two chapters of this interesting treatise, which leans toward the surgical side of venereal disease, introduces us to the study of the bacteriological and surgical considerations to be noted before we can properly undertake to operate successfully on the urinary tract. Special stress is laid upon the importance of the establishment and maintenance of perfect drainage for the urine as the greatest safeguard against the possibilities of secondary infection due to retention of decomposing urine in surgical wounds.

In common with most genito-urinary practitioners, the author is a firm believer in the advantages of circumcision. We can hardly indorse his practice of carefully bathing the cut surface with antiseptics. The reviewer has had the best results when he has depended on careful asepsis alone. The use of strong irritating antiseptics in clean surgical wounds increases the normal secretions and reduces the chances of prompt healing. For the treatment of hydrocele of the tunica vaginalis, the author first advises us to try tapping, to be followed by the injection of ninety-five-per-cent. carbolic acid into the sac, a procedure which is to be classed among the accepted methods of treatment. Should failure follow our efforts, we are offered incision into the sac, combined with the removal of a part or the whole of the sac. The writer does not believe in the early use of the irrigation treatment in acute gonorrhœa, for fear of extending the disease; he considers it useful, however, in the declining stages.

The work concludes with a full description of the methods and instruments used in catheterism of the ureters and with a chapter on the conditions to be met with in the kidneys, with their surgical treatment. The treatise shows originality and careful study.

The Student's Handbook of the Surgery of the Alimentary Canal. Being an Abridged and Amended Edition of the Author's Treatise on the Same Subject. By A. Ernest Maylard, M. B., B. S. Lond., Surgeon to the Victoria Infirmary, Glasgow, etc. Philadelphia: P. Blakiston's Son & Co., 1900. Pp. xv–3 to 510. [Price, $3.]

The treatise of which this is an abridged and amended edition was published four years ago. In spite of the diminished size of the volume, the writer has succeeded in adding a large amount of material which has become necessary to add in order to include the late advances in the surgery of the intestinal tract. The scope of the manual is best defined by quoting from the writer's preface, in which he states that the actual region of the alimentary tract treated extends from the upper end of the œsophagus to the lower end of the rectum proper; in other words, the diseases of the mouth, fauces, and pharynx above and those such as hæmorrhoids, fistula in ano, and fissure of the anus proper below are not dealt with. The object of the work is solely to study those more hidden parts of the tract where similarity, either in pathology or in symptoms, is as likely to elucidate as it is to mislead in diagnosis and treatment.

For the sake of brevity and to avoid useless repetition, all general details pertaining to the preparation of the patient for operations have been omitted. It is assumed that the reader is already schooled in aseptic surgery and only desires such information as will permit him to operate on special regions of the intestinal tract.

The arrangement of the work is excellent. Each chapter is divided into a description of the ætiology, diagnosis, prognosis, and treatment of the pathological conditions to be found, and concludes with well-selected operations for their cure.

Although this small volume consists of only 493 pages, the busy reader will find more pleasure in its perusal than in that of many works of larger size.

Histology and Pathology. A Manual for Students and Practitioners. By John Benjamin Nichols, M. D., Demonstrator of Histology, Medical Department, Columbian University, Washington, D. C., and Frank Palmer Vale, M. D., Assistant in Pathology, Medical Department, University of Georgetown, Washington, D. C. Series edited by Bern B. Gallaudet, M. D. Illustrated with Two Hundred and Thirteen Engravings. Philadelphia and New York: Lea Brothers & Co., 1900. Pp. 7–19 to 458. [Lea's Series of Pocket Text-books.] [Price, $1.75.]

This volume, in accordance with the scheme of the eries of text-books in which it belongs, covers a very onsiderable field in a rather small compass.

The external appearance of the volume commends itself at once, as the arrangement, paragraphing, headings, etc., are most excellent, rendering the subject-matter easily accessible. Examination of the text also discloses great care and accuracy on the part of the compilers, the main and the essential facts being stated logically and concisely.

The part on histology is rather more complete than the section on pathology, and is of sufficient scope and detail to meet the requirements of all but the most extensive medical curricula. It would exactly meet the requirements of dental colleges if the chapter on the teeth were more elaborate.

The section on pathology probably covers as much ground as is included in the laboratory courses of most medical schools, and is extremely well adapted to the needs of students, but we doubt if such a work should be allowed to replace a larger text-book. The illustrations are abundant, well chosen, and of good quality. The work will doubtless meet with a large sale in its special field.

BOOKS, ETC., RECEIVED.

Diseases of the Chest, Throat, and Nasal Cavities. Including Physical Diagnosis and Diseases of the Lungs, Mediastinum, Heart, and Aorta, Laryngology and Diseases of the Larynx, Pharynx, and Nose, and Special Diseases of the Thyreoid Gland and Œsophagus. By E. Fletcher Ingals, A. M., M. D., Professor of Diseases of the Chest, Throat, and Nose, Rush Medical College (in affiliation with the University of Chicago), etc. Fourth Edition. With Two Hundred and Fifty-five Illustrations. New York: William Wood & Co., 1900. Pp. xxi–3 to 765.

Forty Years in the Medical Profession, 1858–1898. By John Janvier Black, M. D., Member of the College of Physicians of Philadelphia, etc. Philadelphia: J. B. Lippincott Company, 1900. Pp. 7 to 498.

Atlas and Epitome of Special and Pathologic Histology. By Docent Dr. Hermann Dürck, Assistant in the Pathologic Institute in Munich, etc. Authorized Translation from the German. Edited by Ludvig Hektoen, M. D., Professor of Pathology in the Rush Medical College, Chicago. Circulatory Organs; Respiratory Organs; Gastro-intestinal Tract. With Sixty-two Colored Plates. Philadelphia: W. B. Saunders, 1900. Pp. 7 to 158. [Price, $3.]

Die specielle Chirurgie in 60 Vorlesungen. Ein kurzgefasstes Lehrbuch für Aerzte und Studirende. Von Dr. Edmund Leser, Professor an der Universität in Halle, etc. Vierte vermehrte und verbesserte Auflage. Mit 330 Abbildungen. Jena: Gustav Fischer, 1900. Pp. xvi–1092.

Dermato-histologische Technik. Ein Leitfaden für Aerzte und Studirende. Von Dr. Max Joseph in Berlin und Dr. Georg Loewenbach in Wien. Zweite vermehrte und verbesserte Auflage. Berlin: Louis Marcus, 1900. Pp. xi–125.

Fliegenlarven als gelegentliche Parasiten des Menschen. Von Dr. Erich Peiper, a. o. Professor an der Universität Greifswald. Mit 41 Abbildungen. Berlin: Louis Marcus, 1900. Pp. 76.

Twenty-third Annual Report of the Board of Health of the State of New Jersey, and Report of the Bureau of Vital Statistics. 1899.

Pure Food Legislation. Speech of Hon. William E. Mason upon the Evils arising from Adulterations in Food, their Extent, and the Legislation Necessary to

Prevent the Use in Food of Alum, Sulphuric Acid, Copper Salts, Zinc, and other Poisonous Substances, in the Senate. Wednesday, May 2, 1900.

Filtration. The Pollution of Streams and the Purification of Public Water Supplies. By George M. Kober, M. D., of Washington.

Heart Lesions and Heart Murmurs. By Jerome Kingsbury, M. D. [Reprinted from the *Surgical and Medical Report of the Presbyterian Hospital.*]

Miscellany.

The Alleged Use of Poisonous Bullets by the Boers.—We are very glad to be able to publish the following very handsome exoneration by the *Lancet* for June 16th: "It has been stated pretty freely in the daily press that among other unfair devices adopted by the Boers in the present war was that of coating the Mauser bullet with a poisonous salt of copper—viz., verdigris. Strictly speaking, verdigris is basic acetate of copper, which may be obtained by allowing vinegar to come into contact with, or to evaporate on, a used copper coin. The same French word, however, has been applied, but wrongly, to the green rust (basic carbonate of copper) which forms on copper when in contact with moist air. Our special correspondent at the base also stated in a letter published in the *Lancet* of May 5, 1900, p. 1312, that he had seen a 'clip' of Mauser cartridges the bullets of which had been dipped in verdigris, but in our issue this week he reports that on being submitted to a thorough analysis this green coating proved to be not verdigris, but a mixture of paraffin wax and carbonate of copper, which, he adds, appears to have been used for the double purpose of preventing the cartridge suffering from damp and of supplying a hermetical closing between the brass capsule and the bullet, and thus preventing rust of the barrel. By the courtesy of Sir William MacCormac, who placed at our disposal some of these so-called copper-dipped bullets, we have been able to submit the coating as well as the nickel case which incloses the lead bullet to complete analysis. The results are of special interest in regard to the accusations made as to the sinister intentions of our enemy, and we are confident that the interpretation to which these results lead is correct and absolves absolutely the Boers from the charge of tipping the Mauser bullet with a poisonous salt. It is essential to state that the Mauser cartridge consists of a brass case (containing the explosive and detonator or cap) to the anterior end of which is attached a bullet of lead inclosed in a nickel jacket. The Mauser bullets which we examined were covered seemingly with a green coating extending from the apex of the bullet to about a quarter of an inch along the brass cartridge case. On scraping this wax carefully off, however, the first shavings proved to be quite colorless and, in fact, consisted of paraffin wax such as is used in making modern candles. As the scraping approached the surface of the nickel case the shavings became light green, until on the surface itself the scrapings were quite green. The nickel case proved to contain on analysis not only nickel but copper, and the green wax contained both those metals also. We have not the slightest doubt, therfore, that the bullets in the first instance were steeped in melted paraffin wax or wax candles solely to prevent fouling of the gun barrel and to protect the nickel case against rusting, to which this metal is particularly liable, and that after a time both the copper and nickel of the case of the bullet entered into combination with the stearic acid (which is commonly added to wax candles) in the wax and turned it green. The same phenomenon is familiar to everybody in the green tears of a wax candle in a brass candlestick. It has been suggested that the coloring was of arsenical origin, but we failed to find the slightest trace of arsenic. The fact that the wax on the bullets contained precisely the same metals as were present in the case entirely sweeps away the suspicion that the Boers entertained a malicious intention and expressly coated their Mauser bullets with poisonous copper salts. This should be stated with some emphasis in order that our enemy may be treated with common fairness. Further, it is doubtful whether the bullet would carry the smallest amount of this green wax coating (considering its comparatively low melting point) to its billet. The metals only existed in traces. Many erroneous and contradictory statements have been made in regard to this matter and we are glad to be able to present such a satisfactory and, as we believe, perfectly true interpretation of the facts as revealed by analysis, which hitherto does not appear to have been carried out at that length or with that precision which the serious nature of the suspicion demanded."

The Pioneer Lady Doctor in Sweden.—According to the *British Medical Journal* for June 16th, on May 25th the degree of doctor of medicine was conferred by the Carolina Institute of Stockholm on Fräulein Anna Stecksen. This is said to be the first time that a woman has been admitted to the degree in Sweden. The subject of the lady's dissertation was Studies of Curtis's Blastomyces from the Point of View of the Ætiology of Tumors. Fräulein Stecksen pursued her studies partly in the Pasteur Institute of Paris under Dr. Roux, and partly in the bacteriological laboratory of the Carolina Institute at Stockholm.

Removal of a Glass Penholder from the Abdomen.—Dr. Thomas S. Harrison, of Selkirk, Ontario, writes to the *British Medical Journal* for May 19th that he was recently summoned to see a farmer's wife, who, thinking herself two months advanced in pregnancy, had attempted to produce abortion by passing a penholder into the mouth of the womb, and that it had gone beyond her reach. This happened in the morning. Dr. Harrison saw her in the afternoon and examined the vagina with a speculum, but could not find the slightest mark or abrasion on the vaginal mucous membrane. A long forceps passed readily into the uterus, but nothing was found; chloroform was then given, and the uterus thoroughly explored, but there were no signs of the penholder. The patient was closely questioned as to the possibility of her being mistaken, but she was positive that she could not be, and that the penholder entered the mouth of the womb; that she had passed it very slowly and deliberately, but that it did not cause the slightest pain or pricking; that for some time after it had left her grasp she could feel it just within the os, and had vainly tried to get hold of it. She further stated that it was a glass penholder or style, with a sharp grooved point.

With considerable misgivings as to the wisest course to pursue, Dr. Harrison sent her to bed and told her husband to let him know if any change took place. Two days later he was told that she had kept quiet and had been comfortable until that morning, when on turning in bed she had felt an acute pain in her side, as if something was stabbing her, so intense that she feared to move or breathe, but when she got on her back the pain ceased.

Dr. Harrison went to see her again with a colleague, who explored both the uterus and bladder without result, and they could discover nothing by palpation. Her temperature was slightly over 100° F., but she felt comfortable, and as it was night she was left until next morning, when the abdomen was opened and, after exploring the pelvic cavity and abdomen, the penholder was found, point forward, nearly touching the diaphragm about its centre. It was upward of five inches and seven eighths in length and was loose in the abdominal cavity. The patient made a rapid and good recovery.

The National Volunteer Emergency Service Medical Corps.—We have received from Dr. J. Adelphi Gottlieb information that this institution, to whose aims we referred in a leading article in our issue for June 23d, was duly incorporated on June 26th. The following is the board of directors of the corporation: President, J. Adelphi Gottlieb, M.A., M.D., LL.D.; recorder, Lieutenant George Rauchfuss, M.D.; Colonel A. B. de Frece; the Rev. Joseph Silverman, D.D.; the Rev. Father N. M. Reinhart; P. Brynburg Porter, M.D.; Maurice A. Gottlieb; Augustus D. Ruggles, M.D.; Albert Harry Scholle; counsel, James Chambers, Esq., 120 Broadway, New York. Among the founders are the following: J. Adelphi Gottlieb, M.D.; P. Brynburg Porter, M.D.; William Stewart Hough, D.D.S.; Lionel Sutro; Percival Kuhne; A. B. de Frece; Henry Bischoff, Jr.; R. J. Schaeffer; the Rev. Father M. J. Lavelle; the Rev. Andrew Longacre, D.D.; the Rev. R. S. MacArthur, D.D.; the Rev. Joseph Silverman, D.D.; the Rev. George T. Purves, D.D.; the Rev. David H. Greer, D.D.; George Rauchfuss, M.D.; Augustus D. Ruggles, M.D.; James Chambers, Esq.; Albert H. Scholle; Cornelius Van Cott; Maurice A. Gottlieb; Oscar B. Weber; the Rev. Father N. M. Reinhart; the Rev. Father John J. Hughes, C.S.P.; the Rev. Dr. E. S. Tipple; the Rev. I. M. Haldeman, D.D.; the Rev. H. Pereira Mendes, D.D.; the Rev. John Balcom Shaw, D.D.; the Rev. Henry Mottet, D.D. Attention is directed to the fact that in order to avoid any possibility of sectarianism entering in any degree into the operations of the institution, two ministers of every denomination representing the more conservative and the more liberal elements of their respective bodies have been asked and have consented to serve in the organization of the corps. The sympathies of prominent business men have also been enlisted, and we are informed that the financial start has been such as to give every promise of stability. It is intended to publish an official organ which will keep all interested in the movement *au courant* with its progress and work. This organization is not antagonistic to the Red Cross Society, with whose operations it does not in any way desire to interfere; but its intended scope is far wider reaching, and it is confidently expected that its services will be as instantly forthcoming when required as are those of a fire brigade—all things necessary in time of disaster being immediately forthcoming from the simplicity with which its vast machinery can be put into motion.

The Commencement Exercises of the Kentucky School of Medicine were held on Tuesday evening, June 26th, which marked the Golden Anniversary of the school. The school is said to be in a flourishing condition, and to be one of the largest and best equipped in the South. Dr. Roswell Park, of Buffalo, delivered the doctorate address, which was much appreciated by the audience, and considered a very learned production.

The American Medical Editor's Association.—The officers elected for the ensuing year are as follows: Dr. Alexander Stone, of St. Paul, president; Dr. Charles F. Taylor, of Philadelphia, vice-president; Dr. S. W. Kelley, of Cleveland, treasurer; and Dr. O. F. Ball, of St. Louis, secretary.

The Study of the Hand in Disease.—Dr. Charles H. Brobst (*Peoria Medical Journal*, May) says that clubbing of the fingers is not confined to cases of tuberculosis of the lung. It occurs sometimes in bronchiectasis and as a sequel to the evacuation of hepatic abscess by way of the respiratory passages. It has been described as a result of congenital heart disease. It is seen after nerve injury, pneumonia, and spinal caries. The matter is probably largely mechanical. The finger tip is the point of least resistance. It is not supported like the toes, by the shoes. Venous and lymphatic flow may be both obstructed, while vasomotor paresis is often present. Dr. Vivian Poore has drawn attention to the fact that clubbing is absent in patients whose legs are swollen with tortuous veins, nor is it always present in bronchiectasis with emphysema where there is considerable venous stasis. Dr. Poore described the case of a lady of fifty years, who sustained a severe injury of the brachial plexus on one side. It was afterward found that the fingers on that side were covered with scurf and affected with chilblains. The nails grew dead and white and they were harsh in texture. Glazed spots appeared at the root of the finger nails, while well-marked clubbing set in on the side of the traumatism.

The hand is often dry in cancer, in the cirrhotic forms of Bright's disease, and in paralytic rheumatism. If the hand is hot and red, or dry and clawlike, the possibility of diabetes enters the mind. If hot, dry, and emaciated, the hectic of advanced tuberculosis is suggested. When one hand is persistently hot and the other is cold, the case may be one of subclavian aneurysm, but it is much more likely to be either gout or lead poisoning. If the palm is not only hot but also clammy, the cause may be excitement or recent exertion. Excessive sweating of the hand is occasionally present in progressive muscular atrophy. A cold and dry hand may mean starvation, anæmia, feeble circulation, or one of the innumerable forms of vasomotor ataxia. The hand is cold, harsh, and swollen in myxœdema. If cold, clammy, and tremulous, then hysteria, melancholia, some depressing emotions of the mind, as terror and apprehension, and the action of such nerve poisons as alcohol, tea, and tobacco should be looked for.

Blake says: "From the tint and texture of the hand we may get many valuable hints as to occupation, habits, tendencies, and mode of life." Sometimes a profession is selected on account of the form of the fingers, while certain trades leave an imprint, more or less pronounced, upon the hands. Thus, artistic persons usually have slender and mobile fingers; musical people have sensitive hands. We expect to see corns on the left finger tips of violinists, and all the fingers of harp players; bone setters are said to have a peculiar thumb; copyists often show a corn on the little finger of the right hand, with a groove at the free end of the medius; the pulp of the left index finger is pricked and blackened in seamstresses; there are blue-black dottings on the hands of miners; photographers have typical stains of pyrogallic acid. A white hand may mean good birth or idle habits; while an exceptionally white hand may show that among other things either the arteries are small in calibre or flaccid as to coat. Such a state of things may mean, too, that pigment is deposited in small quantities, or else that the arterial blood supply is poor in quality or deficient in quantity. This would bring before our minds the possibilities of anæmia, of carcinoma, of poisoning by tea, tobacco, or sewer gas, or by some inorganic poison as lead, arsenic, or mercury. A smooth, thin, satinlike texture of the cutis indicates atrophy, or a lack of oil in the skin, which may be a result of neuritis, of nerve injury, or of vasomotor disturbance, unless the patient is in advanced life, when a dry skin is normal.

There is a condition described by Langdon Down as the woolly hand of a certain type of imbecility, in which the skin is loose, harsh, and thickened. This is allied to or identical with cretinism or infantile myxœdema.

Respecting the finger nails as to rate of their growth, a considerable divergence of opinion exists. Beau gives as a rule that the nails of the hand grow one millimetre a week. At this rate the nails, which average fifteen millimetres in length, would take a hundred and five days to grow out. It seems that the pace of growth varies very much, not only at different ages, but in different people of the same age. Influenced by many external and internal conditions, the pace also varies in the same person from time to time.

Blake says that out of a group of six, the swiftest grower was a tuberculous subject, who had a sharp attack of blood-spitting during the observation, and in explanation he says: "Possibly we have here, as in hyperkeratosis, a suspension of inhibitory nerve influence: compare with tuberculous tachycardia. We know to what an extent the nutrition of the finger tip, including the nail, is influenced by tuberculous phthisis. There is little doubt that this influence is exerted by the products of suppuration, because in destructive pulmonary phthisis there is always a mixed infection."

A valuable point of diagnosis is afforded by the growth of the finger nail. In distinguishing between true paralysis of centric origin and the various pseudoparalyses of hysteria, which sometimes so closely simulate organic disease, it is well to remember that the growth of the nail is modified by most of the centric lesions, while its development is not affected by hysteria. It is asserted that intercranial hæmorrhages arrest the nail growth. The color of the nails frequently gives us very valuable diagnostic hints. Duskiness, if acquired, suggests defective action of the heart or lungs, malnutrition, cold weather, or general feebleness. The nails are pale in hectic and in anasarca; gray in serious internal disease, yellow in jaundice, chalky in some forms of paralysis, livid in ague, and purple in cyanosis.

White spots on the nails are without doubt often due to local injury; but this is by no means the only cause. On two occasions Langdon Down saw transverse white markings of the finger nails occurring with ulcer of the cornea in a professional man of studious habits. Many skin diseases, especially eczema and psoriasis, are associated with brittle nails. It has been stated that brittle nails accompany diabetes mellitus. As a matter of fact, the subjects of glycosuria are prone to neuritis, and any form of peripheral neuritis may be followed by fragility of the nails. It is for this reason that the nail of advanced gout is so often striated. This is not because the nail is gouty, but because gouty persons are so liable to multiple neuritis.

Tremors of the hand are frequently met with at all stages of life, whether with or without disease. Some children are born with tremulous fingers. They pass through life with shaky hands, and they seem little the worse for it. Blake says: "Tremor is probably merely a perversion and exaggeration of normal myotonic contraction, and I have never seen any kind of drug treatment improve the congenital tremors of childhood." In middle life a very large proportion of the tremors are toxic in their character. In men, the abuse of alcohol and tobacco is among the common causes; while in women, mental emotions, the overuse of tea, medicated wines, and drugs. In old age some amount of tremor may be regarded as nearly normal. The hand of every old man shakes. In age we revert to the normal unrest of childhood. The muscles run riot in early life, passing readily into the choreic condition. In extreme youth the muscles do not elect to rest. In old age they can not repose. Senile tremor does not mean only that the nervous or muscular system has failed, but it implies general degeneration.

The New York School of Clinical Medicine.—We learn that at a meeting of the corps of teachers held on June 21st it was decided to wind up the affairs of the school and close it permanently.

The Restriction of Marriage in France.—According to the *New York Times* for July 1st, the French Academy of Medicine has approved the proposition of Dr. Cazallas that persons must be medically approved before they can legally contract marriage. A committee has been appointed to report to the Chambers with a view to legislate on this matter.

The Late Dr. Landon Carter Gray.—The following resolutions upon the death of Dr. Landon Carter Gray were passed at a meeting of the medical board of St. Mark's Hospital, held June 23, 1900:

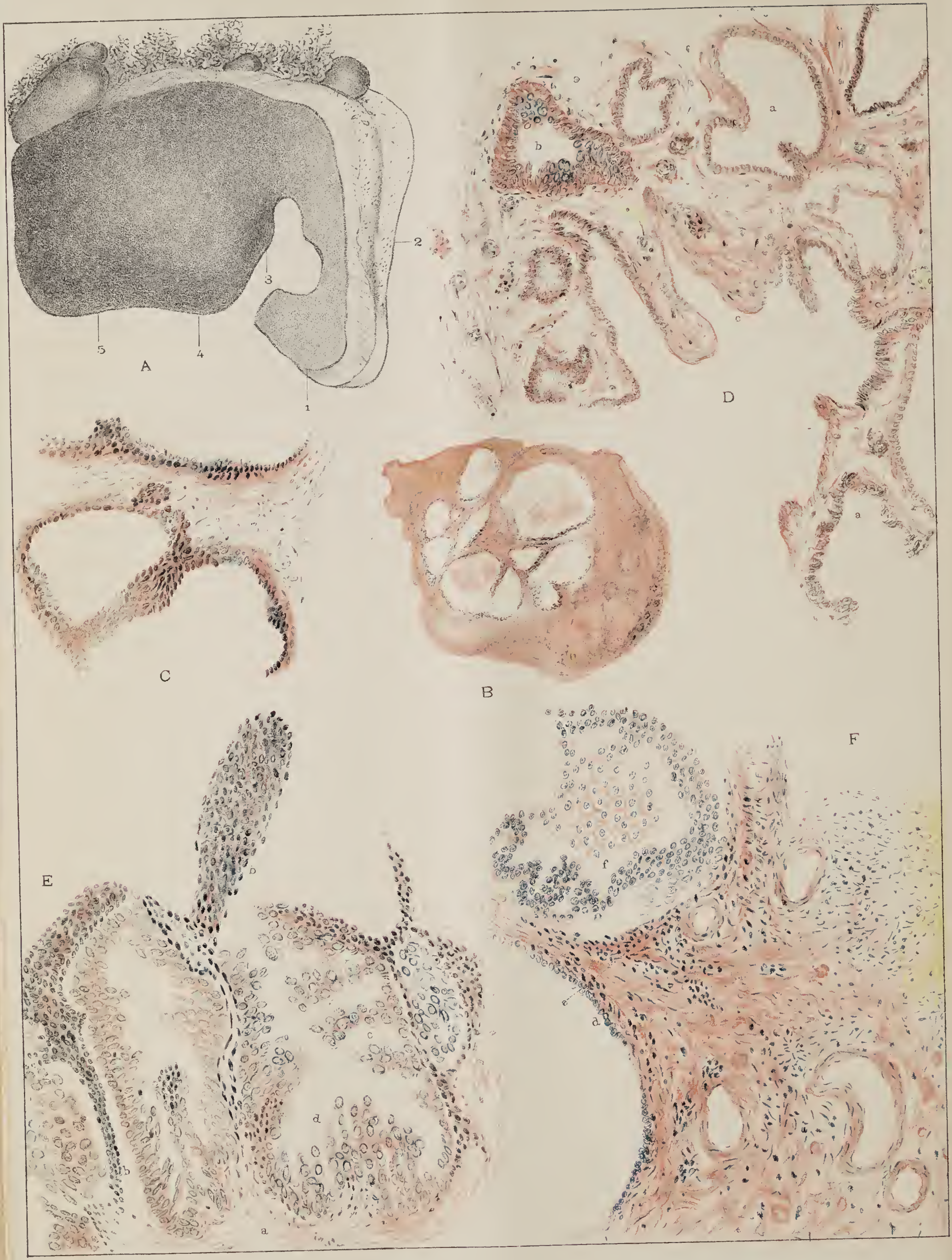
Whereas, The medical board of St. Mark's Hospital has heard with profound sorrow of the death of their colleague and consulting physician, Dr. Landon Carter Gray, which occurred on May 8, 1900:

Whereas, Dr. Landon Carter Gray was an esteemed member by reason of his broad knowledge of medicine and of his rare talents in neurology; he was a kind friend to many, and especially cordial in his relations with the younger members of the profession. Therefore be it

Resolved, That the members of the board hereby express their great grief at the removal of their esteemed colleague by death, and extend their sincere sympathy to the widow, relatives, and friends of the deceased.

Resolved, That a copy of this tribute to the memory of Dr. Landon Carter Gray shall be spread on the minutes of this board, and a copy thereof be sent to the family.

[Signed.] Carl Beck, M. D.,
President;
Ignatz Morvey Rottenberg, M. D.,
Secretary.



DR. MERCELIS'S ARTICLE ON PRIMARY CARCINOMA OF THE FALLOPPIAN TUBE.

THE NEW YORK MEDICAL JOURNAL, July 14, 1900.

Original Communications.

PRIMARY CARCINOMA OF THE FALLOPIAN TUBE.

By ELIZABETH MERCELIS, M. D.

That since 1888, when primary carcinoma of the Falloppian tube was first satisfactorily demonstrated, but twenty authentic cases have been reported is due no doubt, to the difficulties attending an early diagnosis, before involvement of the neighboring organs has occurred.

The value of scattered cases in such somewhat rare conditions is our excuse for reporting the following case of Mrs. Ellen S., who came under observation at the New York Infirmary for Women and Children, October 8, 1894:

Patient gives her age as thirty-five years, but is evidently older.

Has been married twice—the first time twenty years ago, the second seventeen years and a half later.

Menstruation, established at fifteen, has always been in advance and with pain during the first two days. Patient gives history of lead colic twenty-two years ago, while working in lead factory, and of three attacks of "inflammation of the bowels." The first of these occurred five years after first marriage, the second ten years later, and the third soon after second marriage, eighteen months ago. At the time of this last attack patient entered Bellevue Hospital, where she remained several weeks. She was then suffering from pain and irregular flowing. The diagnosis of early pregnancy (abortion?) and pelvic tumor was made, and operation suggested, but upon improvement of the patient nothing was done. During the past fifteen months there has been constant pain in the left side, back, and both legs.

Menstruation has been irregular and frequent, the flow profuse and lasting a week. Almost constant headache with a stupid and tired feeling. The above history was with difficulty obtained.

The diagnosis of pregnancy fifteen months ago may have been a misunderstanding on the part of the patient. Certainly the subsequent history excludes it, unless abortion occurred during that illness.

Status Præsens.—Heart, lungs, and urine negative. Cervix rather low and pointing forward. Uterus somewhat enlarged; cavity, 7.5 centimetres; position vertical. Posteriorly and toward the right side can be felt an elastic tumor the size of a small orange. It is firmly adherent to the uterus and surrounding tissues and painful on pressure.

To the left side is a smaller mass with thickening of the surrounding tissues. Extreme sensitiveness in this region, and it is here that the patient locates most of the pain.

Diagnosis.—Cystic tumor of right ovary, with peri-oophoritis and perisalpingitis. Salpingitis of left tube, peri-oophoritis, and perisalpingitis. Curettings from the uterus were examined microscopically by Dr. Martha Wollstein and found negative.

Operation, November 3, 1894, by Dr. Elizabeth M. Cushier. Incision in median line of abdomen. Tumor on the right side found firmly adherent to the uterus and also to the intestine. Separation quite difficult and attended by free hæmorrhage. After separation, the tumor of the right side proved to be the Falloppian tube with which the ovary was evidently involved, as careful search failed to discover the latter in the pelvis.

The tumor, after being tied at the uterine end with heavy silk ligature and divided, was removed.

Left tube and ovary firmly imbedded in adhesions, which involve also the intestine.

With much difficulty the tube was removed.

The small, firm ovary of this side was left, because of the already severe hæmorrhage during separation of adhesions and the absence of evidence of disease.

Apart from the inflammatory adhesions there was no evidence of disease of the peritonæum, and the nature of the growth, as later revealed, was not suspected.

The temperature on the third and sixth days reached 38.4° C. Pelvic examination on the fourth revealed an exudation in the posterior *cul-de-sac* and left side. This region sensitive.

As the inflammation subsided the temperature fell to normal, and the patient steadily improved.

Note.—January 4, 1895. Still slight thickening of pelvic tissue, but no mass to be felt. Patient feeling very well. No pain. Discharged.

Nothing further was heard from the patient until June 25, 1896, nearly eighteen months later, when she was readmitted to the infirmary.

Patient gives a history of having menstruated regularly until eight months ago, or for nearly a year after the operation. With the cessation of menstruation was associated morning nausea, and at times vomiting, and the patient had thought herself pregnant.

Two months ago a falling iron bar struck her on the hip, and a painful swelling resulted, which has increased in size up to the present time. One month ago the menstrual flow returned, was profuse, and lasted nearly a month.

Severe pelvic pain and œdema of right leg and thigh complained of, but uncertainty as to when these began.

Examination.—Temperature on admission, 38.6° C.; pulse, 90. Urine negative. Cervix appears normal. Uterus increased in size. A mass felt toward the left, which extends into the posterior *cul-de-sac* and reaches about seven centimetres above the pubes. Fluid in abdomen. Over the crest of the right ilium is a firm, somewhat sensitive swelling, the size of a large lemon. Right leg and thigh constantly swollen.

Diagnosis.—Recurrent carcinoma in pelvis, with probable obstruction, from pressure, of iliac vein. Discharged as an inoperable case.

Macroscopical appearance of pelvic growth: Tumor retort-shaped. Tube closed at fimbriated end and all evidence of fimbria gone. The whole very tense, and upon opening along the superior border, a considerable quantity of fluid escapes, exposing the enlarged lumen filled with new growths.

After hardening in alcohol, the dimensions of the tumor are: Length, eleven centimetres; diameter at proximal end, 1.5 centimetres; at distal, four centimetres. Thickness of tube wall, one to seven millimetres. The tube bends upon itself from the start, but about six centimetres from the proximal end it turns sharply downward and forward and at the same time dilates suddenly.

Inseparably joined to this part is the ovary, about two centimetres in diameter and four centimetres in length. At the extreme end the tubal growth is continuous with the ovary. Over the surfaces of both are many adhesions.

Upon careful examination, small sandlike elevations are found in the tubal mucosa, from 3 to 3.5 centimetres from the uterine end. These increase slightly in size, and 3 to 4 four centimetres farther out become pedunculated and slightly branching. Beyond this point we find much larger masses, varying from 0.2 to 2.5 centimetres in diameter, with rounded and perfectly smooth surfaces, or finely branched stems terminating in slightly knobbed ends. Soft, rather fibrous-looking bits of tissue are also seen.

Microscopically. — 1. Transverse section through tube two centimetres from cut end. Muscle layers negative except for an increase of small lymphoid cells. Instead of a central lumen and tubal folds we find the centre of the tube occupied by a number of large and small glandlike spaces, separated by slight or well-formed trabeculæ, and lined by a single row of cuboidal epithelium. The cavities are empty or contain a few pus cells. We have here a follicular salpingitis, due to an old inflammation, with erosion, and subsequent joining together, of the tips of the tubal folds, thus forming spaces running parallel with the long axis of the tube, and bordered by tubal epithelium.

2. Four centimetres from proximal end. Tube twice the diameter of the above. Muscle shows the same increase in lymphoids. Blood-vessels many and large. The glandlike spaces as before, but here we find a more distinct lumen. Some spaces are bordered by a single layer of cuboidal cells, lumina free. In others a decided change is seen. The epithelial cells are larger, with large, rather pale-staining nuclei of varying shape. These cells show a tendency to heap up and so encroach upon the spaces which they surround, or the simple cuboidal cells may bound one end, while at the other are many rows of these larger irregular forms. Nowhere have they invaded the stroma.

Lymphoid infiltration much increased about those spaces where the new cell growth is seen.

This specimen shows the inner limit of the carcinomatous change.

3. Six centimetres from end. The muscle layers increased in thickness. Lumen elongated. No empty spaces, but instead nests of large cells, such as were found in former section. Along the free border the growth is most pronounced and here has a papillary arrangement, the connective-tissue trabeculæ being continued out as delicate stems about which the large new cells are grouped.

These cells show a marked tendency to develop along lines perpendicular to this central stem.

Small lymphoid infiltration bounds the outer edge of the growth.

4. Cut through tube and inner end of ovary.

The growth in tube more advanced, large masses filling the lumen. The muscle moderately invaded, but *only* next the lumen.

The ovary is the seat of chronic interstitial changes, the connective tissue about the blood-vessels being especially marked.

At one point we find an aggregation of small lymphoid cells. Otherwise negative.

5. Section of outer extremity of tube and ovary.

The tube wall is deeply invaded, but here also the growth has extended from the mucosa, leaving the outer muscle layer free.

The ovary at this end is widely involved, although no increase in the size of the organ has occurred.

The new cells are arranged either in lines, in masses, or bordering ragged, glandlike spaces.

Many polymorphonuclear and lymphoid cells everywhere. Caryocinetic figures at all stages, and degenerating cells are very abundant, decidedly more so than in the corresponding growth in the tube, thus showing microscopically what has been taught clinically, that carcinoma of the ovary is the more rapidly growing tumor. Left tube not preserved, as there was no evidence of change other than chronic salpingitis.

In Doran's case (*Transactions of the Pathological Society of London*, 1888, vol. xxxix), as in our own, the ovary as well as the tube was invaded. The reasons given by Doran for his belief that in his case the growth had its origin in the tube rather than in the ovary, and which, after careful study, are accepted by Sänger and others as conclusive, are the following: A vaginal discharge for three years containing broken-down material.

Uterus curetted; fourteen months later, free from disease, while the tube contained new growths, fluid and broken-down material resembling the discharge.

The growth in the tube well developed, favoring the view that the tube had been involved for a long time.

The ovary, although entirely invaded by the carcinoma (no ovarian tissue found), was still small.

Solid malignant ovarian tumors grow very rapidly, and in fourteen months would have formed a very large mass of malignant disease.

The tube is slow to become invaded in primary cancer or sarcoma of the ovary, and when attacked it is usually the serous coat which is first involved.

In our own case the determining points for primary development in the tube are:

1. The absence of malignant growth in the uterus, as shown by microscopic examination of curettings at the time of operation.

2. The presence of an old salpingitis, together with the freedom of the inner end of the tube from malignant change.

3. An enlarged tube, the lumen of which is filled with carcinomatous masses of even 2.5 centimetres diameter. This change found throughout two thirds of the tube, and with the existence of a pelvic tumor for more than fifteen months.

4. The advanced stage of the growth within the tube and fairly healthy condition of the outer muscle layers. This, in view of the resistance of the tube to secondary invasion from the ovary, and that such, when occurring, usually involves the peritoneal surface first, the mucosa secondarily.

5. The ovary is not only small, but at the inner end free from the growth.

The outer portion is widely invaded, but even here areas of ovarian tissue are found.

6. Microscopical evidences of a more rapid proliferation of the new cells in the ovary than in the tube.

All of these force us to consider the growth in the ovary of more recent development than the advanced coexisting tumor of the tube.

Of considerable interest is the general symptomatology, as determined by Sänger from a study of the fifteen cases collected by him (*Krankheiten der Eileiter*, A. Martin, 1895).

The age has been, almost without exception, at or about the time of the menopause. Ten between forty-three and fifty years, three between fifty-six and fifty-eight years, and only one as early as thirty-six years.

In all a diseased condition of the tube resulting from an old but no longer purulent salpingitis preceded the development of carcinoma.

Pain in the region of the disease and in the leg of the same side. At times a sudden increase of the pain, as in twisting of an ovarian cyst. The return of such pain after long intervals.

Menstruation irregular and menorrhagic. The so-called tubular type, where abnormally long and short intervals are followed by profuse flow.

Vaginal discharge watery or thin and bloody, although at times purulent or mucous.

Swelling of abdomen. Often ascites decreasing after discharge of fluid through the tube.

Loss of flesh, weakness, cachexia.

Objective Symptoms.—Sausage-shaped tubal swelling (present only in some) which presents at the same time characteristics of ovarian cysts, especially those of suspected malignancy.

A change of volume of the tumor after outflow of fluid. This, above all, is of importance in diagnosis.

Comparison of my case with the cases collected by Sänger (see monograph):

The age, though it was given as thirty-five years, must have been nearly, if not quite, the average of those reported.

An old salpingitis existed.

Pain was present, but was more marked on the side where there was simple inflammatory change.

No history of its sudden onset.

Pain in both legs.

Menstruation had been irregular and profuse.

No history as to discharge.

Never ascites.

General health failing.

An elastic, cystlike tumor present, but no variation of size while under observation.

Chronic changes in annexa of opposite side, and cancerous invasion of ovary of same side.

Recurrence of growth when seen after eighteen months.

DESCRIPTION OF PLATE.

A. Tumor split along superior border; new growth of tube protruding between retracted walls. Natural size after hardening in alcohol.

B. Section at 1. Leitz, ocular 3, objective 1. Shows follicular salpingitis.

C. Same, magnified. Ocular 3, objective 5.

D. Section at 2. *a.* Simple glandlike spaces of tube lined by a single row of epithelial cells.

b. Same, but with proliferation of cells. First evidence of carcinoma.

c. Erosion of mucosa. Leitz, ocular 3, objective 5. Stained with hæmatoxylin and eosin.

E. Section at 3. Tube. *a.* Muscle wall. *b.* Small-celled infiltration. *c.* Well-developed carcinoma. At *d* the arrangement in lines is shown. Leitz, ocular 3, objective 7. Hæmatoxylin and eosin.

F. Section at 4—through ovary only. Ovarian stroma containing (*a*) blood-vessels with thickened walls; (*b*) corpora fibrosa; (*c*) blood free in tissue; (*d*) wall of Graafian follicle; (*e*) small round-celled infiltration about carcinomatous nodule *f.* Leitz, ocular 3, objective 7. Hæmatoxylin and eosin.

53 EAST TWENTIETH STREET.

SYPHILIS OF THE BRAIN.*

By J. T. ESKRIDGE, M. D.,
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ALIENIST AND NEUROLOGIST TO ST. LUKE'S HOSPITAL,
AND CONSULTING ALIENIST AND NEUROLOGIST
TO THE ARAPAHOE COUNTY HOSPITAL.

MR. PRESIDENT AND MEMBERS OF THE COLORADO STATE MEDICAL SOCIETY: The subject, or that part of the subject, which has been assigned me for discussion in the symposium, "Syphilis," is Syphilis of the Brain. I take it that this title is meant to include all the various and varying manifestations of syphilis within the cranium. The society is largely composed of general practitioners of medicine—men and women, for the most part, who are seeking facts free from theory and chaff, and presented in such a practical manner that they are ready for use. Bearing these conditions in mind, I shall not attempt an elaborate critical and theoretical discussion of the intracranial manifestations of syphilis. Indeed, the time at my disposal would not permit this. I shall endeavor, after making some preliminary statements, to present a few facts on the ravages of syphilis within the cranium, and then to follow these by some practical suggestions in relation to symptomatology, diagnosis, prognosis, and treatment, laying especial stress upon the uselessness, yea, harmfulness, of vigorous and prolonged antisyphilitic treatment for the relief or removal of most of the indirect effects of syphilis of the central nervous system.

Syphilis of the brain, as is well known, may be inherited or acquired. The personal experience of a single observer is insufficient to enable him to determine in which sex inherited syphilis or its effects predominate, and I know of no statistics to enable me to arrive at any definite conclusion in respect to this. Acquired syphilis of the brain is found nearly three times more frequently in the male than in the female. The symptoms of inherited syphilis usually manifest themselves before or soon after birth, or during the first few years of extra-uterine life, although in exceptional cases they have not been observed until the twentieth or thirtieth year has been reached. We can not be too cautious in accepting the statements of observers that the first manifestation of inherited syphilis did not appear until the twentieth or thirtieth year, because between the ages of eighteen and thirty-five or forty the initial lesion of syphilis is most commonly contracted.

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* Read in a Symposium on Syphilis at the annual meeting of the Colorado State Medical Society, held in Denver, June 19, 20, and 21, 1900.

In what proportion of those who have been infected by the syphilitic virus do symptoms of syphilis of the brain develop? Dr. J. V. Hjelmann thinks about one and a half to two and a half per cent.* It must be remembered that this proportion is given after excluding all cases of paretic dementia and tabes. Of those who have tertiary syphilis, about twelve per cent., according to Hjelmann, and twenty-one per cent., according to Fournier, show brain symptoms of syphilitic origin.†

Important questions, and ones that we are often asked, are: How long after the initial lesion is it before syphilis of the brain may develop? and Does the time ever arrive when we are justified in saying that the length of time since the chancre was contracted is so great that there is no longer any danger of the brain becoming involved? In answer to the first question, How long after the initial lesion of syphilis is it before brain symptoms may develop? we can only say that the length of time is variable and indefinite; that certain lesions, among which may be mentioned inflammation of the arteries and the degenerations, are classed among the tertiary lesions, or chronic effects of syphilis, and occur commonly from the fifth to the twelfth year after luetic infection; that the gummatous inflammations of the membranes often appear much earlier; that syphilis of the brain may not develop until the lapse of many years (probably thirty or forty); finally, we have to admit that there are many cases of so-called precocious syphilis of the brain on record in which the symptoms have developed within one or a few months from the manifestations of constitutional syphilis. I saw in consultation with Dr. Clayton Parkhill, of this city, a case of syphilitic degeneration of the cerebral arteries in the person of a young man who had contracted a chancre three months before. This man had been treated for the initial lesion by Dr. Parkhill, and at the time he was stricken down with an apoplectic stroke due to thrombus, if I mistake not, he was taking mercury. Dr. Sydney Roberts, of Philadelphia, reported a few years ago a case of syphilis of the brain, the symptoms of which developed two months and eight days after the chancre appeared, the latter having a period of incubation of twenty-six days. Dr. H. C. Wood, in his brochure entitled *Syphilis of the Nervous System*, pages 6 and 7, refers to eighty cases of precocious syphilis of the brain, all occurring within a year after the appearance of the chancre. Three cases developed one month after the chancre; four, two months; six, three months; eight, four months; fourteen, five months after the chancre.

In answer to the second question, Does the time ever arrive when we can say that the length of time since the chancre was contracted is so great that there is no longer any danger of the brain becoming affected? we must say *No* emphatically.

One other point of practical importance before passing on to the intracranial lesions resulting directly and indirectly from syphilis of the brain: Are there any known causes that have a tendency to give rise to the development of syphilitic lesions of the brain in infected subjects? There seems to be no difference of opinion among clinicians and syphilographers that latent brain lesions, syphilitic in character, may be, and frequently are, fanned into activity by causes that greatly disturb the normal condition of the brain. On the other hand, Professor H. C. Wood is inclined to make light of many of the alleged causes that temporarily disturb the brain, such as blows, exposure to the sun's rays, and intense intellectual application. As I have stated on previous occasions, there is no doubt in my mind, from my own clinical experience, that chronic alcoholism renders the brain vulnerable to the poison of syphilis.* Tamouski believes that alcohol and heredity are the main factors predisposing to the localization of syphilis of the brain. Mickle is very positive in his statements. He says: "Mental strain or excitement, cranial injury, sexual or alcoholic excess, are the most frequent excitants to a cerebral localization of syphilis, in this playing a part even more important than their frequent one of bringing on the sudden outbreak of an already existing but slumbering brain affection." † It seems to me that anything that greatly disturbs or impairs the normal condition of the brain in an infected person predisposes this organ to the development of a syphilitic lesion. What I do doubt, however, and this seems to me what Professor H. C. Wood contends for, is that in an infected person who is entirely free from intracranial syphilis, head injuries which do not result in inflammation themselves are incapable of giving rise to an acute attack of syphilis of the brain immediately following the injury.

Pathological Conditions of the Intracranial Struc-

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* W. Julius Mickle. On Syphilis of the Nervous System, *Brain*, 1895, part i, p. 99.

† *Ibid.*

* Clinical lecture, entitled Syphilis and Alcoholism of the Brain, etc., *Medical News*, April 6, 1895.

† Mickle. On Syphilis of the Nervous System, *Brain*, 1895, part i, p. 99.

tures in Syphilis of the Brain.—So far as we know, the direct effects, or so-called characteristics, of syphilitic, lesions of the brain are few. On the other hand, the indirect effects, or the non-specific lesions, are numerous. It is of the utmost practical importance, both in prognosis and treatment, to make this distinction. Only the specific lesions, those that occur as a direct result of the poison of syphilis, are especially remediable to antisyphilitic treatment; while the numerous injuries caused by the presence of specific lesions, or the degenerations resulting from toxæmic or other blood states which may result from syphilis, are in no way specific in character and respond as tardily to antisyphilitic treatment as do the lesions resulting from causes wholly unassociated with syphilis.

Gumma.—The typical specific lesion of the brain is the gumma. The formation of the gumma is the direct result of inflammation, which undoubtedly has been lighted up by the poison of syphilis. It differs from the ordinary products of inflammation in being less highly organized and in having a greater tendency to degeneration. When the inflammation is acute and violent from the poison of syphilis, the inflammatory product at first varies but little from that of an ordinary or non-specific inflammation. It takes time for the gumma to assume its characteristic form. As Gowers puts it, the formation of the gumma is always attended by two elements: the process of inflammation and the process of tissue formation. One of the characteristics of intracranial syphilitic inflammation is the great tendency to hyperplasia. The gumma varies in size from a line in diameter to several inches. It may be yellowish, reddish, or whitish in appearance, yet it usually has, when of recent formation, the feel and consistence of glue. No matter how large the gumma may become, or the length of time it may have existed, it never becomes highly organized. Its tendency is always to degenerate. This may take place in one of two ways; either by caseation or by fibrous degeneration with the formation of masses of cicatricial tissue. The gummatous deposits may be single, but they are often multiple. They are most commonly found at the base of the brain, especially early, and the region of the interpeduncular space is a favorite site. The sixth and the branches of the third cranial nerves are often affected. Gummata are often found on the cortex of the brain, especially in the motor region, sometimes in the pons, rarely in the substance of the cerebrum, and least frequently in the cerebellum. Gummatous inflammation of the membranes, both pia and dura, is frequent—in fact, this is the ordinary form of intracranial specific inflammation. In inflammation of the membranes the tendency to hyperplasia is very great. Gowers states that inflammation of the dura is usually diffuse and the tissue formed undergoes the fibroid change, and he thinks it is most common in inherited syphilis. In the pia the inflammation is more commonly local, and the inflammatory products may undergo caseous or fibroid change.* Finally, the walls of the arteries are frequently the seat of gummatous deposits. The sheaths of the cranial nerves undoubtedly may be the seat of syphilitic inflammation and the nerves themselves become damaged, either by extension of the inflammation or by pressure from gummata. Whether the nerve fibres or the brain substance are ever primarily the seat of syphilitic inflammation is still in doubt. But to this I shall return later.

So far, I have simply called your attention to the various places within the cranium in which gummatous deposits may be found. I wish now to consider the effects of gummata and specific inflammation on the intracranial structures; or, to put it differently, I desire to point out the non-specific lesions that result from the specific ones, and to draw a distinct line of demarcation between them. This distinction is of the greatest practical importance in the prognosis and treatment of every case of brain syphilis. For the one lesion, early in the disease, we have approximately specific medicaments; for the other there is no known method of medication of especial value. Recent gummata at the base of the brain exert pressure on the soft structures and interfere with their functions, the symptoms of the disturbed function depending upon the size of the deposits and their situation. The cranial nerves are compressed and irritated, and the membranes are inflamed. If appropriate treatment is instituted in the early stage, before caseous and fibroid degeneration takes place, and before injuries to the structures compressed become well advanced, the whole morbid process may be removed and a cure, so far as the local brain trouble is concerned, is complete. But, unfortunately, vigorous treatment is not always instituted early; it does not take long for compression of nervous tissue to impair permanently, although it may not destroy, the function. Caseous and fibroid degeneration sets in early. Although the gummatous substance may be completely absorbed, the fibroid and caseous degeneration leads to the formation of cicatrices and bands of contracting cicatricial tissue. These are non-specific lesions, are not specially influenced by specific medicaments, and remain to compress and throttle the cranial nerves and keep up irritation to a greater or less extent in the membranes and in the brain substance. If, perchance, they remain latent, they mark the situation for subsequent specific inflammation on the application of any of the various exciting causes. It is to these non-specific lesions at the base of the brain, which have resulted from specific inflammation, that many cases of impairment of vision, blindness, ocular paralysis, and chronic basilar headaches are due. These, of course, fail to respond to antisyphilitic agents. Many cases of optic-nerve atrophy and of permanent paralysis of one or more ocular muscles may be thus explained, both in children and adults, for it must be remembered that gummata occur as the result of hereditary syphilis as well as from that which has been acquired.

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* Gowers. *Lettsomian Lectures on Syphilis.*

Gummata on the convex surface of the brain are most likely to occur in and around the motor convolutions. The effects, both from the specific and non-specific lesions, on these structures, the cortex and membranes, are the same as when the inflammation takes place at the base, but the symptoms are different. The same remarks apply to the effects of syphilitic growths within the brain substance. It may be added that intracerebral syphilitic growths are rare and probably arise from some portion of the pia. The characteristic form of specific intracranial inflammation is syphilitic meningitis. It is doubtful whether this form of meningitis, in the true sense of the word, is ever acute. In other words, an apparently acute attack of syphilitic meningitis is secondary to a preexisting local and chronic specific inflammation of the membranes. If this is true, and I have seen no reason to doubt it, a syphilitic meningitis is always subacute or chronic, although acute outbreaks are not uncommon. Great thickening of the cerebral membranes sometimes takes place from specific inflammation. These thickened areas or patches in the membranes denote chronicity, and in consequence, while they are due to syphilitic inflammation, they are degenerative in character, composed of bands of firm fibrous tissue, the results of caseous and fibroid degeneration, and are not purely syphilitic in character. At the base of the brain these bands of fibrous degeneration are most commonly found in the neighborhood of the optic chiasm and in the interpeduncular space. Syphilitic meningitis involving the convexity of the brain is not infrequent, especially affecting the pia over the anterior and parietal lobes in the vicinity of the longitudinal fissure. According to my experience, when the dura is inflamed in this region the pia rarely altogether escapes; especially have I observed this when the cranial bones of the vault have been inflamed. The pia, on the other hand, is frequently inflamed and the dura remains free. In syphilitic inflammation of the pia the cortex is involved in the inflammatory and degenerative processes. We have a meningo-encephalitis which is partly due to meningitis and partly to degeneration of the arteries of the cortex. Here, again, while the specific inflammation has been mild and the specific exudate comparatively slight, the non-specific lesions are extensive, very destructive, will not respond to antisyphilitic medication, and hence are permanent in their effects.

There is one other change in the membranes to which I wish to direct attention. This is chronic thickening of the dura in the posterior cerebral fossa. It is commonly found in childhood as the result of inherited syphilis. I have only seen one case of this affection. It occurred in a child about three years of age, the offspring of infected parents. It had been sick for several weeks before it was admitted into the Arapahoe County Hospital. The head was extremely retracted, the body became greatly emaciated, but the patient lived, after it came under my care, one year. At the autopsy the dura of the posterior fossa, especially that portion surrounding the pons and medulla, was thickened and the seat of old fibrous deposits. Some of these cases are said to have recovered. It is just possible that some cases of reported recovery from tubercular meningitis may have been cases of syphilitic meningitis.

Blood-vessels in Syphilis of the Brain.—We now pass on to syphilitic inflammation and degeneration of the blood-vessels of the brain. Syphilitic endarteritis and periarteritis have been observed and minutely described by nearly every writer on syphilis of the brain, but so little has been said about syphilis of the veins that I shall quote from a case cited by Mickle.*

> "CASE I.—Female, aged forty-five, died in an epileptiform attack due to hæmorrhage at the brain base, from rupture of a syphilitic vein. There were clear signs of early general paralysis, and tabetiform ones due to diffuse embryonic meningo-myelitis. Syphilitic lesions affected the large vessels of brain and cord. A diffuse vascular lesion affected the cerebral gray cortex, and in a less degree the subjacent white substance.
>
> "The large arteries of the brain present slight patches of ordinary secondary obliterative endarteritis; but the chief lesion is an infiltration of the embryonic cells in the adventitia, forming an intense periarteritis, diffuse, but in places nodular—the first stage of a gummatous process. In the veins the muscular connective tunic is lesed; in them the infiltration, although usually diffuse, takes here and there a nodular character, even more clearly, and so as to form miliary gummata when 'caseification' sets in. The venous lesion exceeds the arterial at the brain base, where it has led to hæmorrhage, and at the surface of the cord, and is largely independent of the meningeal and arterial lesion. The endo-vena does not show any proliferation; when it is affected it is so through invasion by the gummatous process. Hence the ulterior tendency of the luetic arterial lesion is to narrowing, obliteration, and their results; on the veins, to hæmorrhage."

Personally, I have not met with a case of venous hæmorrhage due to syphilitic degeneration of the vessel.

Arteries.—Gowers, in speaking of arterial degeneration, states that "except in the arteries of the brain and in the aorta, syphilitic disease is scarcely known." † In this he is mistaken, as syphilitic degeneration of the spinal arteries is not uncommon.

The walls of the medium, and sometimes of the larger, arteries of the brain are affected by a syphilitic inflammation and a gummatous deposit, involving especially the inner coats (the intima and endothelial lining) of the vessels. This process is known as endarteritis, and on account of the tendency to obliterate the calibre of the affected vessel is sometimes spoken of as arteritis obliterans. In some cases, before the calibre of the vessel is closed, a small branch given off by the vessel is blocked and the blood supply to a very small area of the brain may be cut off. If a small artery, especially of the cortex, is thus closed, the collateral circulation may be sufficient to prevent necrotic softening, but it may not be sufficient to maintain the normal condition of the part, and this may explain the spots of induration found in the cortex of the brain, especially in syphilitic children. When the calibre of a medium or large vessel is occluded, necrotic softening in the area of distribution of the affected artery must take place, as the collateral circulation of the brain is so meagre that Nature is unable to provide against such violence. It is important to remember that the final closure of the vessel is due not to gummatous deposits, but to a blood clot formed at the narrowed portion of the vessel. Thus, while the greater portion of the vessel's calibre has been occluded by a specific lesion, the closure is finally completed by non-specific material that is not specially influenced by antisyphilitic treatment. We have, then, in all cases of syphilitic occlusion of a vessel two non-specific lesions: one, the blood clot that completes the occlusion of the vessel, and the other the necrotic softening in the area of the brain to which the occluded vessel is distributed. These facts should be borne in mind in the prognosis and treatment of all cases of syphilitic thrombosis.

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* W. Julius Mickle. On Syphilis of the Nervous System, *Brain*, 1895, part i, pp. 115, 116.

† Gowers. *Syphilis and the Nervous System*, p. 19.

Gowers states: "A second effect is production of aneurysm of the larger arteries—those that are the special seats of the disease." * The explanation given for the formation of aneurysm is inflammation and degeneration of the vessel wall by which extensible fibroid tissue is substituted for the elastic elements.

Mills, in his volume on *Disease of the Brain and the Cranial Nerves,* says periarteritis attacks the smaller arteries and may give rise to miliary aneurysm and hæmorrhage. In a case recently under my observation periarteritis involving the nutrient vessels of the pons resulted in local softening and death. Periarteritis of the nutrient vessels of the brain is not rare, but hæmorrhage into the brain substance from specific inflammation of the vessel is infrequent.

It should be borne in mind that multiple lesions in syphilis of the brain are the rule. It is not uncommon to find most or all of the larger arteries at the base of the brain affected with gummatous deposits. In cases of syphilitic tumors of the brain it is the exception to find the blood-vessels healthy. On the other hand, the walls of the arteries are often the seat of numerous gummatous deposits, while the structures of the brain are free from them.

All the degenerative processes, including the nuclear lesions, notwithstanding they may in many instances be due indirectly to syphilis, are non-specific in character, and need not detain us here.

Little is positively known of specific inflammation of the brain substance or of that of the nerves, and I shall pass these structures without further comment.

Symptoms.—One of the marked features of syphilis of the nervous system is the irregularity and multiplicity of the symptoms. This or that portion of the nervous structure, unassociated in function, is selected for the attack.

Mickle says: "The selective but unsystematic tendency to picking out this or that portion of the nervous system for its attack, and producing a multiplicity of symptoms of apparently different nervous lesions." He gives Buzzard's views as follows: "The important indications of syphilis are afforded by the multiple character of syphilitic nervous affections and by the coexistence of two or more grave lesions of the nervous system, not necessarily connected."

Hughlings Jackson thinks: "Random association or a random succession of nervous symptoms is a very strong warrant for the diagnosis of syphilitic disease of the nervous system." *

Gowers believes that syphilitic lesions are never very sudden, or very slow or chronic, and never select and isolate for their attack structures of a common function.

These guides given by Mickle, Buzzard, Hughlings Jackson, and Gowers for the interpretation of syphilis of the nervous system do not apply to the chronic degeneration and other effects of specific lesions, but to only the symptoms produced by syphilitic lesions themselves. In the study of syphilis of the brain, as well as of the other parts of the nervous system, we can not draw too clear a distinction between the specific and non-specific lesions of syphilis. Let me illustrate. A specific lesion, a gumma, for instance, located at the base of the brain gives rise to local meningitis, cranial-nerve symptoms, and, by irritating one crus, unilateral disturbance in motion and sensation, while another gummatous deposit in an artery may give rise to hemiplegia or cortical irritation. Here, then, we have a random distribution of lesions attacking structures not possessing a common function, and, of course, giving rise to a multiplicity of symptoms that can only occur from two or more lesions in unassociated structures. On the other hand, if we take one of the chronic degenerations that result from syphilis, we find the fibres of the posterior columns of the spinal cord are picked out from all the other fibres of the cord. Structures alike in function have been attacked and the symptoms correspond.

The symptoms of syphilis of the brain can best be studied in the light of the nature and seat of the intracranial lesions and their effects. We have found that the meninges of the brain are especially the seat of specific inflammation, and hence for the deposition of

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* *Loc. cit.*

* Mickle. On Syphilis of the Nervous System, *Brain,* 1895, part i, p. 98.

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gummatous material. We should expect, then, to find headache a prominent symptom. As headache and disorders of sleep go together, it is to be expected that insomnia, or, when pressure is great, somnolency should be marked symptoms. Again, the base of the brain is the most common site for gummatous deposits, especially early in the history of syphilis of the brain, so that the natural inference is just what we do have, irritation or compression of the cranial nerves at the base. Another common place for the deposit of gummata is on the convex surface of the brain in the region of the motor convolutions and over the anterior lobes; so that motor disturbance, especially in the form of Jacksonian epilepsy, in the one instance, and mental defect in the other, are the symptoms that we are prepared for.

The walls of the cerebral vessels, especially of the arteries, are frequently the seats of numerous deposits of gummatous material, resulting in occlusion of vessels and softening of the cerebral substance. One or many arteries are affected, although it is rare for more than one to become occluded at the same time. While this is the case, it is important to bear in mind that, although only one vessel has been rendered functionless, the function of the entire brain is greatly impaired on account of the number of vessels narrowed. Hence we find a ready explanation for the occurrence of aphasia in left-sided hemiplegia. While the power of speech is located in the left cerebral hemisphere in right-handed persons, and in the right hemisphere in left-handed individuals, and is unilateral in the vast majority of persons, yet there is every reason to believe that language, which is more than simple speech, is bilateral and located in both hemispheres.

From thrombotic occlusion of vessels, cortical or deep seated, hemiplegia or monoplegia is accounted for, with or without sensory or special-sense disturbances.

It is of no uncommon occurrence—in fact, it is, I have no doubt, a frequent experience with all of us—that within a few hours to a day or more after the development of pronounced paralysis in syphilitic subjects the limbs may in some cases begin to move at will, and soon may regain partial or complete power of motion, although there still remain some subjective sensory disturbances and some awkwardness in movements. How are we to account for this rapid return of motor power? We do not find it after hæmorrhage, not often after embolus, nor after thrombus resulting from senile atheroma. To my mind there are three possible explanations. There may be others, but only these occur to me at the present. One is that only a small vessel has been occluded in the motor region, but, on account of the disease of numerous other vessels, the shock has been so great that immediate and almost complete paralysis has resulted; but, as soon as the shock is recovered from, collateral circulation supplies the defective brain area, and function of the part is to a greater or less extent resumed. Another possible explanation lies in the fact that the occluded vessel may supply an area just without the motor region, but, owing to the crippled state of the general circulatory brain apparatus, function is temporarily lost in the adjacent or motor area. The third manner of explaining rapid recovery of function, and this applies to patients that recover motion several days to a week after it has been suddenly lost, is that the collateral vessels to the affected area are diseased, but their calibres are not occluded. They are able to prevent softening of the part until antisyphilitic medication removes the deposits in their walls, when they can supply sufficient blood to the affected brain area to enable it to resume its function.

Thus far I have done scarcely more in the symptomatology of syphilis of the brain than mention the most prominent symptoms in connection with the character and location of the lesions to which they are due. The rapidly increasing length of my paper compels me to pass on to the next division of my subject, in which I shall have to refer to headache, the manner of the onset of paralysis, etc.

I can not refrain, however, from devoting a few words to one class of symptoms, those that relate to syphilitic inflammation of vessels of the brain. This lesion is often the only evidence of intracranial syphilis that we find post mortem. It is, as a rule, rarely attended by much headache. The earliest recognizable symptoms are those that denote beginning mental failure. These are often slight dizziness, especially when the head is moved suddenly, the patient shows slightly increased absent-mindedness; he is forgetful, less energetic, and less ambitious than was his wont. He may be at first anxious about himself, but as the trouble increases he is apt to get into a happy-go-lucky frame of mind. This condition, if not treated early, finally ends in hopeless dementia, headache being absent or insignificant throughout the course of the disease, although the patient often becomes restless and sometimes maniacal during the latter part of the day.

(To be concluded.)

ATROPHY OF CILIARY MUSCLE.

By NORBURNE B. JENKINS, M. D.,
CHICAGO.

April 18th.—Miss —, aged nineteen, in robust health, was fitted with convex glasses: R. V., $\frac{20}{15}$ with + 0.25 S. combined with + 0.37 C. axis 135°; L. V., $\frac{20}{15}$ with + 0.50 S. After the effects of the mydriatic, the near point was taken with these glasses and the patient could read fine print three inches and a half from the eyes. The glasses relieved the headaches, eye trouble, etc.

In July the glasses were lost. At an opticians' and oculists' institute the patient was given a pair of concave glasses, − 0.50 S. She complained of pain and dizziness and was given one-fourth-grain belladonna pills with instructions to take one every night, and, if this failed to control the pain or dizziness, to take an additional one during the day. This was kept up for about two months, when she discontinued the glasses and belladonna.

In October the writer returned to the city and the patient applied for a duplicate of the original glasses. She was not able to read fine print with or without them. The addition of + 1.50 S., age glasses, now makes the print distinct but blinds the patient for distance. The pupils are normal. There is no latent hyperopia and no constitutional disease.

The trouble is probably atrophy of the ciliary or focusing muscles. It may be some central disturbance due to the cumulative effects of the belladonna. It may be cerebral irritation from improper glasses. It may be cycloplegia or paralysis of the focusing muscles.

Atrophy of the ciliary muscle, though not mentioned in the text-books, is of frequent occurrence. Non-use of the focusing muscle, long-continued use of mydriatics, glasses which give the ciliary muscles too little work, or glasses which give the ciliary muscles too much work may cause atrophy.

THE PRESENT STATE OF THE GALVANO-CAUSTIC OPERATION OF BOTTINI FOR ISCHURIA.*

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The treatment of ischuria due to hypertrophy of the prostate by thermo-galvanic cauterization was devised by Professor Bottini, of Padua, in 1872.

He first presented a statement of his experimental researches to the profession in 1877 (1). Notwithstanding his reports from time to time in various Continental journals (2) upon the excellent results of the application of his method, he spoke, as often happens in presenting anything new to the surgical world, to unbelievers and Pharisees.

It was not until 1897, when Freudenberg, of Berlin, who had made a special journey to Padua to study the technique of the operation, made improvements upon the instrument of Bottini, and, gaining experience, presented the results thereof, together with the modified incisor, to the twenty-fourth congress of the German Surgical Society at Berlin, and to the Twelfth International Medical Congress at Moscow, that the surgical world seriously gave the operation consideration.

This was a case in which a prophet seemed to be honored in his own country if his utterances were unheeded elsewhere, for a number of Bottini's Italian *confrères* (3) tested and reported favorably upon his method before it became accepted as worthy of trial by the profession in other countries.

On March 5, 1898, Willy Meyer published the report (4) of his experiments with the method of Bottini in the *Medical Record*. I at that time had under my care the distinguished orthopædic surgeon the late Dr. Fayette Taylor, of New York, who was suffering from prostatism, with total obstruction. At his urgent solicitation I had promised to do a prostatectomy upon him, when Meyer's article came into my hands. We read it carefully, and, as I knew Meyer to be a good observer and honest relator, I telegraphed the Kny-Scheerer Company to send me a battery, such as has been furnished to Meyer and others, with the Freudenberg modification of the Bottini incisor, and the necessary instructions for their use. About the 1st of April I received the imported battery guaranteed by this firm to be the best made for the purpose. This was set up and charged for me by a competent electrical firm. I was unwilling to submit my old friend to this operation without some practical knowledge of its technique, so I commenced a series of experiments upon the cadaver, with the bladder open and illuminated with reflected light, so that the process of the working of the incisor could be looked upon and heard without obstruction.

These experiments extended over a period of eleven months, using twenty-four cadavers. After the first eight or ten I was satisfied that this was probably, with this battery, as unscientific and untrustworthy an operation as had ever been devised. The blade, which was usually easily heated cherry red, as the instructions stated it should be, when not in contact with the bladder neck, would lose its glow almost immediately when brought tightly up against the moist tissues. Its cautery power was uncertain and fitful, but it never burned deeply. The turning of the screw caused the incisor to slowly slip over the moist tissues when it was cool, or pulled the elastic structures of the bladder neck along with it when there was heat enough to make it stick to them. Without an ampèremeter it was absolutely impossible to tell what was the current strength in use, and it was only by the ascending smoke that you could be sure that it was burning when you were looking at it.

I preferred to submit my patient to the known dangers of a prostatectomy, though this had been advised against by the two oldest and best-known genito-urinary surgeons of New York, and while proceeding with my experiments I did a successful Alexander operation upon him. Time and time again my electricians tested the battery, and each time informed me that it was as well made a storage battery as they had ever seen. It simply was not strong enough for the work, and yet I am assured that this was the battery approved by Freudenberg and used by Meyer (4), Morton (5), and others of the observers reporting in 1898 and before.

It is no wonder that the operation had sometimes to be done over again, for, as in the case of Weber and Toreck (6), nothing had been done in the first place except to introduce the instrument into the bladder and withdraw it.

Under these circumstances the operation could truly be termed one that was not ordinarily accompanied by any danger, unless such as would arise from the laceration of the tissues at the bladder neck, and the result of hæmorrhage or sepsis.

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* Read before the Medical Society of the State of California at its thirtieth annual meeting, San Francisco, April 18, 1900.

With this uncertainty of cautery power, and the use of only a cherry-red heat, the doing of the operation with an empty bladder, as advised by Morton, or with the bladder filled with air, as advised by Bransford Lewis (7), would be an absolute necessity. But this is all changed now. The Kny-Scheerer Company make a storage battery weighing about eighty pounds and furnished with an ampèremeter, which I have been using since February, 1899, that possesses a sufficiently destructive cautery power to satisfy the most exacting, the evidences of which I present to you this evening. It will thoroughly burn a groove in the densest prostatic tissues and should be used only with the bladder filled with some antiseptic solution.

The battery is stated to store enough electric power to do three operations, but it is unsafe to use it for burning more than four grooves slowly at its best working capacity, which heats the cautery blade to a white heat, the ampèremeter registering continuously fifty ampères. It has, or should have, a voltage of four and an ampèrage of eighty, and I find the rule stated by Bottini (8), that each incision uses ten ampères, is about correct. A less ampèrage than forty will not heat the blade to the cauterizing point.

The best description of this battery, and also that of the Bottini incisor (Freudenberg), is given by Ramon Guitéras in the *New York Medical Journal* for April 19, 1899. For hospital service in the larger cities, or for operation in houses lighted with electricity, the street current may be used by means of a transformer and portable ampèremeter for heating the blade, as I now, through the courtesy of the Electro-therapeutic Company, of San Francisco, whose offices are in the Parrot Building, am enabled to do for you.

The use of the ampèremeter should never be omitted, for it is bad surgery to guess that you are doing an operation, and unskillful mechanics to employ power without some definite idea of how much you are using.

One of the claims of this operation is that nearly always a general anæsthetic can be dispensed with. Some people are so nervous and apprehensive that they are liable to injure themselves by moving suddenly, pulling away from the operator. An accident of this kind is described by Guitéras (9), and these persons will require either chloroform or nitrous oxide, but they are the few only.

For local anæsthesia operators commonly recommend the use of a small quantity, a drachm to an ounce, of a three-per-cent. solution of cocaine, or of a three- to five-per-cent. solution of beta eucaine, injected into the deep urethra and bladder. My later operations have been done under local anæsthesia obtained from the Guyon solution of twenty-four grains of antipyrine and ten drops of tincture of opium in three ounces of water, injected into the empty rectum about forty minutes before the time set for the operation. About ten minutes before the expiration of that time the bladder is to be thoroughly washed with borosalicylic solution through a soft-rubber catheter by means of a sterilizable hand syringe, and then, to intensify the anæsthesia, from one to two ounces of a two-per-cent. solution of cocaine in a ten-per-cent. solution of antipyrine are injected into it and the prostatic urethra, and the catheter is withdrawn. This combined anæsthesia has acted perfectly, no pain at all being felt. For my next operations I intend to use a five-per-cent. solution of nirvanine, a preparation I have found very useful as a local anæsthetic for the urethra, prostate, and bladder, and from which I have seen none of the ill effects sometimes observed after the use of cocaine or eucaine. After the withdrawal of the anæsthetizing fluid the bladder is filled with borosalicylic solution to a degree of moderate distention, which will vary with the intensity of the hypertrophy of the bladder wall, from two ounces and a half to eight ounces. The connection is first made and the incisor tested; the current is then shut off and the instrument introduced without delay, rotated so that its beak catches upon the tissues of the posterior surface of the bladder neck, the tip of the index finger of the left hand in the rectum marking the place, the cooling apparatus set going perfectly by an assistant, the finger withdrawn from the rectum, and the left hand used to support the instrument below. The current is again turned on by a second assistant until the dial of the ampèremeter swings to 50, when, after a delay of a few seconds, the blade is set in motion by the screw and the first groove burned slowly to the full three centimetres and a half, from two to three minutes being consumed in the pulling out from and return of the blade to its socket. If the combined result of the intrarectal examination of the prostate by the finger, the intra-urethral by the bulbous searcher and the stone sound, and the intravesical by the cystoscopy previously made has shown the necessity of further incisions upon one or both sides to remove lateral pressure, let the instrument be turned so that these grooves may be burned at the angles with the prostatic urethra that the judgment of the operator, based upon the results of his search, may indicate, and let them be burned as slowly as the first was. The burning of an anterior groove seems to be bad surgery in the face of my experience in Case III, and the risk not warranted by the frequency of this form of prostatic hypertrophy. As to the length of these incisions, that too must be determined by the judgment of the operator for the particular case before him, for bladders and prostates are no more alike than are heads and faces.

Examining the specimens of my two Bottini misfortunes, in Case III a fresh groove burned through an enormous prostate, wide enough and almost deep enough to drain a very capacious hypertrophied bladder with a deep *bas-fond,* and in Case IV a smooth channel, perfectly healed, following a burn from the neck of a very small, thick-walled bladder through an irregular cancerous prostate to the membranous urethra, it would seem that the posterior groove, if properly burned, should be enough to drain the bladder perfectly. If the obstructions were entirely upon the sides, I should not expect the operation to be a successful one, for the entire problem seems to resolve itself into a mechanical one of drainage, and you can not drain a pond by digging a ditch upon the side hill above it. All the symptoms of prostatic obstruction are due only to the hindrance to the emptying of the bladder. If the bladder neck is raised by posterior prostatic outgrowth enough to elevate the bladder mouth so that it is no longer the lowest point of the bladder when the man is erect, then we are dealing with a bank, and the pond back of it can only be drained by cutting the bank away. These are the best cases for the Bottini operation, for we dig with it an aseptic ditch. If the obstruction is purely lateral and intravesical, as it sometimes is, or median and intravesical, then a Bottini would be entirely useless, for we are dealing with a rock resting on the inside of the waterway. The only hope of relief arises from its removal by a suprapubic prostatectomy. If the obstruction to the channel is entirely intra-urethral, not very great and to one side, a Bottini should be tried, for it probably will succeed; if it is bilateral, it may still be tried, but I think the chances of success are not so great and, unless the condition of the case were very desperate, I should advise a perineal prostatectomy by preference.

Judging from my personal experience, derived from nine prostatectomies in which the bladder was opened suprapubically, twelve post-mortem examinations upon known prostatics made for the purpose of discovering the anatomy of the obstructions, and four suprapubic sections for stone or drainage in prostatics, I have never but once found the well-developed prostatic bar at the bladder neck, so much spoken of by authors, uncomplicated by lateral growths, intravesical or intra-urethral, and once only did I meet with a perfect collar. Such cases, bar or collar obstruction, when they do exist, are typically favorable for the Bottini operation.

Practically, the field is widened by the fact that in nearly all cases of enlarged prostate there is, sooner or later, more or less upgrowth of the prostatic tissues into the interspace where the mucous membrane of the urethral floor joins that of the bladder, thus raising the outlet of the bladder somewhat. The lowering of this by the Bottini incision, severing the muscular tissues of the bladder sphincter, with the consequent destruction of blood-vessels and lymph channels—as Moullin (10) says, "Breaks up the vicious circle of obstruction, residual urine, congestion, irritability, increased frequency, etc."—has much to do with its benefits.

Many of the published cases, particularly those of the stage of imperfect batteries and hurry to get into print, do not establish better results than Guyon and his pupils frequently obtain from a careful and correct use of continuous drainage. I agree with James Dunn (11) that "it is the abuse of the bladder by prolonged tension and infection that causes most of the distress and final destruction in these cases (prostatics), and in a large measure this is preventable by sense, cleanliness, and skillful use of the catheter."

But, unfortunately, sense and cleanliness are rare, and skillful use of the catheter not common even among physicians.

Most surgeons shrink from prostatectomy on account of their little knowledge of the prostate and its diseased conditions, which arises usually from their dislike to the introduction of the finger into the rectum (12), and because they do not understand vesical drainage. Sick men do not like bloody operations that promise uncertain results. In my experience but few of those who might be benefited by it care for castration, and I do not blame them. The patient takes to the Bottini operation because it does not lay him up in bed. It is not devoid of danger, and requires skill and experience to do it right, but it is not so dangerous as, and does not require the same quality of skill that, a thorough prostatectomy does. There is little danger of sepsis if the groove is burned with sufficient cautery intensity, for the eschar seals the blood-vessels and lymphatics, and only comes away, like the slough from any other deep burn, in from ten days to three weeks, leaving a healthy granulating surface beneath. The dangers of the operation are perforation of the superior bladder wall where intestinal adhesions exist, extravasation of urine, and perineal abscess from injury to the membranous urethra during the operation; perforation of the posterior bladder wall, as in Freudenberg's case, which most likely was caused by adhesions due to pericystitis and periprostatitis or vesiculitis, embolic pyæmia, sepsis, as in Rydigier's case, or suppurative epididymitis, as seen in Freeman's (13) cases. Its annoyances are burning vesical irritation for a few hours or a few days, temporary incontinence, and frequently attacks of epididymitis.

The operation appears to give the best, at least the most striking, results in cases of chronic complete retention.

The fact that there is little or no contractile power apparently left in the detrusor would not deter me from doing a Bottini, for I have seen the most remarkable expulsive power return to a bladder after a prostatectomy, when there had been six years of total catheter life and not enough contractile power left in the bladder to propel the urine away from the mouth of the catheter without extra pressure by the hand upon the abdomen; and I am now, in Case VI, watching the same curious development, after a Bottini, of a detrusor long in a state of desuetude.

As a precaution, it is well for the surgeon, before doing this operation, to be sure that he is dealing with a case of simple prostatic enlargement, and not some other pelvic trouble. I have had a case of cancer of the bladder base, a case of double seminal vesiculitis, and also a case of periprostatitis with abscess brought to me by physicians for the Bottini operation. Now, if many of the published cases have no value as factors in the judgment of the worth of the operation, there are others reported by disinterested and skillful observers that are most remarkable, and should establish it as a recognized measure for the treatment of certain cases of prostatic enlargement.

Von Frisch (14) relates a case of his own experience:

> "A patient who had suffered from complete retention for five years, and who had undergone vasectomy eighteen months previously without benefit, urinated a hundred cubic centimetres spontaneously six hours after the Bottini operation, on the second day twelve hundred cubic centimetres at intervals of two hours, on the eighth day had only fifty cubic centimetres of residual urine, and at the end of the third week could empty his bladder voluntarily to the last drop. His urinary frequency was then three to four times during the day and once at night."

Another, who had led a catheter life for five years, and who had undergone prostatectomy in 1894, perineal prostatectomy in 1895, and suprapubic prostatectomy in 1897, without benefit, was operated on in May, 1898, by the Bottini method, and nine days thereafter could urinate freely voluntarily.

This can not be hoped for in all cases. I certainly have not obtained it.

Meyer (15) relates a case of Freudenberg's:

> "A man of sixty-three had complete retention for three years and a half. In June, 1894, both testicles were removed by Casper, of Berlin. The retention remained unimproved. In 1897 he still had to catheterize himself four or five times daily; in spite of regular careful irrigation of the bladder some vesical catarrh was always present. The prostate was very soft; the upper end could not be reached with the finger. On April 22, 1897, Freudenberg did a Bottini upon him. He burned three grooves—one backward, one through the lateral lobe, and one anteriorly. Five hours and a half after this operation the patient commenced to void his urine spontaneously; ten or twelve days later he voluntarily emptied his bladder almost completely. Thirty-four days after the operation the catheter was dispensed with. Six months later the patient urinated in a good stream without any difficulty six or eight times in each twenty-four hours. The urine had become perfectly clear. The patient had taken salol and urotropin internally. He had also lost his former constipation. He enjoyed life and regretted the loss of his testicles."

Among its recent advocates in Germany, besides Freudenberg, are Lohnstein (16), Simon (17), and Kraske (18); in Austria, von Frisch (19) and Hanc (20). Friedlander (21) says: "The results of this method are considerably better that those of prostatectomy, without, however, affording the wished-for relief in all cases." In England, Mansell Moullin (22) says: "This method of treating enlarged prostate has not become so popular as it deserves to be. It is not a very serious operation, and is not followed by psychical disturbances in the same way that orchidectomy may be. If it fails, it leaves no bad results, such as fistula or mutilation."

In the United States, the latest considerable textbook on genito-urinary diseases is that of Lydston (23), of Chicago. This author, conservative in all matters except that of the therapeutic value of the oil of eucalyptus, speaks thus of the Bottini: "Its field of usefulness must necessarily be limited to cases in which the obstruction is chiefly confined to the prostatic floor. It remains to be seen, however, how much shrinkage of the remainder of the hypertrophied tissue may result from the nutritional change, and relief of irritation, induced by the cautery." Leonard Freeman (24), of Denver, after reporting eight cases, concludes: "It is not claimed that the Bottini method is free from danger or inconvenience—the method offers a better chance of relief in a less objectionable and less dangerous manner than other procedures." Guitéras (25), at a meeting of the New York County Medical Association, December 18, 1899, in speaking of cystitis, stated that, when the prostate is very large, enucleation should be done, but in the case of moderate and very hard hypertrophy the Bottini operation, destroying the blood-vessels and diminishing the blood supply, thus favoring atrophy of the gland, should be preferred. Young (26), of Johns Hopkins University, speaking on this subject at the third annual session of the Medical Society of Virginia, October 24, 1899, said: "No careful report of cases followed for a number of years has been made, and we must accept with some hesitation the extravagant claims of immediate and everlasting cure made by some writers." There is, however, but little doubt that the method may be successful in some cases.

Appended are the reports of six of my cases of the Bottini operation, which illustrate very well its usefulness and its dangers. The fate of the poor negro, sad as it was, may prove to be the salvation of some whom this experience may save from the dangers of the anterior burn. Case V shows how the operation may be utilized for the closure of suprapubic fistula, where the cause of its continuance is prostatic obstruction. Case VI shows wonderfully how the power of contraction may return to an atrophic detrusor after years of disuse.

You will notice in the pictures of Cases III and IV the track of the incisor is marked by a broad and deep V-shaped groove—in the first healed, in the second unhealed—which acts like a ditch dug to drain a pond, the bladder, closed by an automatic weir gate, the severed vesical sphincter, which opens when the forward pressure reaches the necessary point. The frequent repetition of the emptying process keeps the ditch clear, and there is said to be but little danger of its closing. In other words, if the obstructing prominence is really removed, relapses are infrequent.

CASE I. *June 20, 1899.*—John R., aged sixty-nine, laborer. Patient of Dr. Fitch Mattison, of Pasadena. Sent to me with ischuria, apparently due to gonorrhœal stricture, the apex of the funnel in the bulbous urethra being impassable to a filiform. Normal calibre of urethra, 26 F. Urinary frequency, hourly.

24th.—Combined internal and external urethrotomy. After external urethrotomy I always thoroughly dilate the prostatic urethra and the vesical sphincter with strong uterine dilators or Kollman's straight urethral dilator, so that the drainage necessary for the first few days may be unaccompanied by tenesmus, and that a better opportunity be afforded for digital exploration of the prostatic urethra. I sometimes find this is all that is required to relieve commencing prostatic obstruction for a long time.

In examining his prostate, after the dilatation, between a finger in the rectum and one in the prostatic urethra, I found the right lobe considerably enlarged, and moderate elevation of the tissues of the floor of the vesical neck by the posterior lobe, showing this to be a case of old and extreme stricture, complicated by prostatic obstruction, certainly favorable for the trial of the Bottini operation, if the overdilatation did not prove curative.

The Otis drainage tube was removed on the fourth day.

July 4th.—Urinary frequency hourly, the act being typical of prostatic obstruction; the urgency great, the stream started with difficulty—free enough when started, but interrupted.

25th.—The perineal wound healed, and the entire urethra readily passable to a steel sound, 26 F., but the condition of the bladder remains much the same, though salol and urotropin had been given internally, and instillations of silver lactate and silver nitrate, 1–1,000 to 1–100, had been used every third or fourth day. Urine: specific gravity, 1.018; acid; contained blood, pus, urates, triple phosphates, hyaline and granular casts, flat and round epithelium, and abundant microorganisms. After centrifuging, the supernatant urine contained one fourth per cent. albumin.

26th, 10 A. M.—Bottini operation under chloroform anæsthesia, at the request of the patient. The bladder was washed with borosalicylic solution, and then inflated with air. A prominence in the left groin, previously supposed to be an inguinal hernia, was noticed to gradually enlarge as the bladder filled; pressure upon it forced air from the bladder, and distention of the bladder redistended the vesical hernia. Upon the insertion of the Bottini instrument much of the air escaped along its groove, and this was but imperfectly prevented by tying a piece of rubber tubing around the penis. The cystic congestion was so intense that the mere passage of the instrument caused quite a smart hæmorrhage. Two grooves were burned—one posterior, three centimetres and a half long, and another three centimetres long, through the enlarged right lobe at an angle of about forty-five degrees. While burning the posterior channel, I held my finger at the apex of the prostate and an assistant listened through a stethoscope placed over the abdomen. It was noticed that the cautery did not work evenly; that when it was burning properly the sizzle could be felt in the rectum and heard over the abdomen. A curious point, which I do not undertake to explain, was that when the needle of the ampèremeter swung past 50, one could neither feel nor hear the blade burn, but when it returned to 50, the noticeable evidences of cauterization immediately recommenced. The bladder was washed with borosalicylic solution and the man put to bed.

There was but little hæmorrhage afterward, not nearly so much as occurred from the primary introduction of the instrument. The total time occupied in the operation was about ten minutes.

During the morning he complained of soreness in the urethra and moderate pain in the bladder, which was entirely relieved at 1.30 P. M. by the passage of four ounces of bloody urine. During the next twenty-four hours the frequency was once in three hours, and there was some dribbling.

On the 28th and 29th the intervals of urination continued to be about the same, but the bladder held more urine.

On the 30th the blood disappeared.

During the first twenty days of August he passed large quantities of charred prostatic tissue and pus, but no distinct sloughs. There was considerable increase of frequency, and at times incontinence.

The last week in August his frequency was five to six times at night, and eight times during the day.

The old man declared the operation had been beneficial to him and declined further interference, saying he was satisfied. I could not bring myself to believe the Bottini operation had improved his condition. He left the hospital and had a No. 26 F. sound passed every two or three weeks by his physician. I did not see him again until February 17, 1900, when he reported that the vesical irritation had gradually improved, and the frequency had reduced itself to once in three hours during the day, and not to exceed twice at night. A No. 22 F. soft-rubber catheter passes easily to the bladder.

Residual urine, two drachms; bladder capacity, three ounces.

I have six stone sounds, but I could only pass one, my short-beaked Colin, to his bladder, and this had to be depressed considerably and could not be moved to either side at the bladder neck, showing that it was in a groove. The prostate, through the rectum, felt soft and about the same size as at the time of the operation. His left epididymis was a little tender from a recent inflammatory attack.

April 12, 1900.—Urine clear; bladder capacity, three ounces; residual urine, one drachm. Result, a practical cure.

CASE II.—Peter McD., farmer, sixty-one years of age. A sturdy individual, who looks younger than he is. He has had urinary frequency for five years. Admitted to the hospital after exposure incident to a debauch, with retention, September 22d. Treated until October 10th by catheterization at regular intervals, receiving internally urotropin and salol. He had no urethral stricture, the retention being due entirely to prostatic obstruction. The prostate was of the large, soft variety, bleeding easily upon the passage of any metallic instrument.

By rectal examination the right and left sides were about equally enlarged, the middle lobe not grooved.

Urethral examination showed lengthening of the prostatic urethra and elevation of the bladder neck, it being necessary to depress the handle of the sound considerably before the point would pass the obstruction.

Cystoscopic examination revealed projecting enlargements to the right and below the inner urethral mouth, and a fading cystitis, most marked in the trigone and around the urethra. Urine acid; specific gravity, 1.020; no albumin, casts, or sugar. Some blood and pus microscopically. Residual urine, two ounces and a half.

October 10th. — Bottini operation under chloroform anæsthesia, the patient having refused local anæsthesia. I burned two grooves, the posterior three centimetres and a half long; the one through the right lobe, at an angle of thirty-five degrees with the urethra, three centimetres long. Time for each, two minutes and a half.

11th.—Prostate feels larger than before the operation. The patient passed water as soon as he came out from the influence of the anæsthetic. The first urine was slightly bloody.

Prostate feels larger through the rectum; the groove burned posteriorly can be readily felt.

14th.—Passed some charred tissues and a small clot.

17th.—Passing small sloughs. Frequency, every hour and a half, but dribbles a brownish fluid almost continuously. He continued to pass *débris* containing charred tissues until October 21st, when a large whitish slough with a charred surface came away. This was followed by some hæmorrhage.

25th.—Second slough was passed. Both this and the preceding were about the lengths of the channels burned and were two centimetres thick.

30th.—Washed bladder through a No. 22 catheter. Bladder capacity, five ounces. Voluntary return, four ounces and a half, the passage of the last drop accompanied by a few drops of blood.

February 15th.—Attack of double epididymitis after coitus.

March 30th.—The frequency is still about ten times for the twenty-four hours; the bladder is not perfectly emptied, but the urine is clear; residual, two ounces. The stone sound, in entering the bladder, evidently lies in a deep groove and can not be rotated about the bladder neck. This groove can be felt easily through the rectum.

Result of the operation, doubtful benefit.

(*To be concluded.*)

"FLOATERS" IN THE URINE.

By WILLIAM F. BERNART, M.D.,
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THE diagnostic value of "floaters" in the urine voided in cases of urethral inflammation or lesions of the adnascent tissues needs to be more thoroughly developed. The characteristic action of these little masses in freshly passed urine, on microscopical examination, shows peculiarities which have been dwelt upon by many of our leading genito-urinary specialists. I have accepted the name "floaters,"[*] introduced by Dr. F. C. Valentine, as so far there seems to be some question with regard to an appropriate name for them, different observers using the terms clap shreds, comma shreds or Fürbinger's hooks,[*] *Tripperfaden*, urethral filaments, etc.

Of fifty samples of freshly voided urine examined, every one was in a case of some previous gonorrhœal infection improperly treated. All cases of acute infection, where the urine was turbid from the excess of the inflammatory secretion, were discarded, and the cases accepted were of from six months' to five years' standing. Accepting the statement of Oberlander[†]—that under the influence of dilatation the coarse shreds become finer, then they become coarse filaments, then fine filaments, then coarse flakes, then fine flakes, then coarse granules and eventually fine granules, and also that the pathological changes brought about by a long protracted inflammation influence these floaters—I have made no attempt to classify them according to the effects of treatment or length of infection.

That there is a relation between the movement in the urine of these floaters and their microscopical formation there is no doubt, mucus and epithelium being lighter than pus. The principle of Archimedes by which every body immersed in a liquid is submitted to the action of two forces: gravity which tends to lower it, and the buoyancy of the liquid which tends to raise it with a force equal to the weight of the liquid displaced, the weight of the body is either totally or partially overcome by this buoyancy; from which it is concluded that a body immersed in a liquid loses a part of its weight, that of the liquid displaced. This must be considered, because the action will be modified by the specific gravity of the urine and the compactness and the composition of the floater. The light and imperceptible threads of mucus in the urine play an important part in the action of the floaters as they hold many in suspension which would otherwise have fallen to the bottom; in some urines this cloud becomes quickly and plainly visible, while in others it remains to be discovered with the microscope.

In dealing with the pathology of gonorrhœa in its relation to floaters in the urine, it is unnecessary to dwell upon the acute stage with its inflammatory swelling and profuse discharge, changing from a thin gray-white made up mostly of mucus and pavement epithelium, with a small amount of pus, to the thick greenish-yellow and blood-stained character where pus is the predominating factor; and, finally, as the disease begins to decline, it takes on a slightly colored watery discharge containing much mucus and many epithelial cells, until, finally, all coloration ceases, and what appears seems nothing but an oversecretion of mucus practically devoid of pus. After the disease has become chronic, the lesions, with their variable congestion and granulation, involve the follicles and lacunæ and invest the submucous periepithelial connective tissues. This inflammation may vary in its extent, at times being sharply localized, and again may involve a large area of the mucous surface. In the earlier stages of chronic urethritis there is an abundant round-celled infiltration of the urethral epithelium and subepithelial connective tissue. The follicles and lacunæ are involved in this general catarrhal inflammation. As time elapses and this chronicity continues, the mucous membrane and its glands atrophy, and the epithelium undergoes transformation from the cylindrical to the squamous variety. It is the product of this devastation that is washed out by the urine. These washings vary in density and composition, some being mainly epithelial cells, some mucus, others mucus and epithelium with varying quantity of pus, while others are composed almost entirely of pus. The combination of these elements varies so that a classification can be made only according to the one which predominates.

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[*] *New York Lancet*, March, 1900.

[*] *Archiv für klinische Medicin*, 1881, vol. xxxiii, p. 79.

[†] *New York Lancet*, March, 1900, quoting Die chronischen Erkrankungen der männlichen Harnröhre. *Klinisches Handbuch der Harn- und Sexualorgane*, vol. iii, Vogel, Leipzig, 1894.

The peculiarities exhibited by these floaters in the urine are the manner in which some sink rapidly to the bottom while others fall more slowly, the lighter ones fluctuating with currents in the urine until gradually they are held in suspension at various depths. In a series of experiments tried to see if this suspension at different depths is entirely due to the composition of these floaters and specific gravity of the urine, I have adhered to the following technique. For convenience the urine was divided into three sections: first, the upper half of the urine; second, the lower half; third, the bottom or the bottom of the beaker. Every specimen was freshly voided into a clean glass beaker which was immediately placed upon a level space in a good light and observed for an hour and a half. At the end of this time the floaters were picked out with a fine pipette and placed in a watch crystal numbered to correspond to the divisions of the urine. Floaters were removed from the upper half, the lower half, and the bottom, respectively, so as not to create currents in the urine and change their positions. The specific gravity of the urine was now taken and it was then carefully filtered. Floaters for microscopical examination were first taken from the watch crystals, mounted, and numbered 1, 2, and 3, so as to designate from what portion of the urine they were taken. The remainder of the floaters were carefully placed back in the filtered urine in the reverse order of their removal—namely, 3, 2, and 1, their action in this urine being carefully observed. The floaters were again removed and placed in filtered urines, one of lesser specific gravity and one of greater specific gravity, and closely watched. The filtrate was washed from the filter paper and examined microscopically, as was also the unfiltered urine in which the floaters were first held in suspension.

In every case it was found that the particles which floated in the unfiltered urine fell to the bottom in the filtered urine, with the exception of an occasional light flake of mucus which in urine of lighter specific gravity sank only a short way and then remained stationary. In one case, where a sample of urine with a specific gravity of 1.038 was used, it was found that several of the smaller particles floated which, upon microscopical examination, proved themselves to be mostly mucus and epithelium. The microscopical examination of the floaters, taking them collectively, followed the classification of Guyon, in which those which lie in the upper section of the urine are composed mainly of mucus and epithelium, while those of the lower portion have an addition of pus, and those containing a preponderance of pus sink to the bottom. The examination of the urine and filtrate showed long, irregular shreds holding bacteria, urinary sediment, and an occasional epithelial or pus cell in their meshes.

The results of fifty such experiments prompt the following conclusions:

1. The specific gravity of the urine is a prominent factor in the action of floaters.

2. The elements composing the floaters influence their action.

3. Their suspension at different depths in the urine is greatly due to some mechanical interference.

4. Upon filtration of the urine all but the very lightest floaters, those composed of flocculent mucus, will sink to the bottom of the beaker.

5. The action of floaters does not alone depend upon their composition or the specific gravity of the urine.

Since the difference in the length of the infection and its extent, and the influence of treatment, did not show a marked degree of difference in the results of the foregoing experiment, it is but fair to judge that some substance within the urine, which can be removed by filtration, influences the action of floaters and their diagnostic value.

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TWO UNIQUE RECTAL CASES.*

By SAMUEL G. GANT, M. D.,
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IN THE NEW YORK POST-GRADUATE MEDICAL SCHOOL.

Chronic Diarrhœa due to Rectal Ulceration.—I present this case because it will interest equally the physician and surgeon. The patient, a married lady, thirty years of age, informed me that she had been a sufferer from diarrhœa for more than five years. She had experimented with patent nostrums and medicines prescribed by reputable physicians without material improvement. She tried the Chinese doctor and the osteopath with like results. Becoming discouraged, she returned to her family physician, who in turn referred her to me to ascertain if rectal irritation was responsible for the frequent stools and tenesmus. Examination revealed three ulcers on the posterior rectal wall from a dime to quarter size, the lower of these being only three quarters of an inch above the anus. The sphincter muscle was hypertrophied and tightly contracted, and the mucous membrane throughout the rectum highly inflamed.

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* Reported at the May meeting of the Medical Union.

Treatment.—Under general anæsthesia the sphincters were divulsed, the ulcers curetted, and the denuded surface brushed over with a nitrate-of-silver solution, thirty grains to the ounce. Post-operative treatment consisted in keeping the patient in the recumbent position for two weeks, daily rectal irrigation with antiseptic and stimulating remedies, together with a light diet. Her bowels did not act until the fourth day, and then as the result of a teaspoonful of compound licorice powder. In six weeks the ulcers were entirely healed and she was discharged cured. Within six months she gained thirty pounds, and to my knowledge never had a return of the frequent stools.

In conclusion, I wish to state that it is my belief that the continuing cause of diarrhœa is located in the colon and rectum with greater frequency than is generally supposed. I have for years examined the rectums and sigmoids of all patients who have come under my care seeking relief from chronic diarrhœa. As a result of this practice I have been able to make a correct diagnosis and relieve many of these sufferers by local treatment.

Stricture of the Rectum caused by Stone in the Bladder.—Mr. B., twenty-four years old, brought to me by Dr. Reichart, of Paola, Kansas, to be treated for stricture of the rectum. He had never suffered from syphilis, dysentery, or tuberculosis. His suffering dated back three years, during which time he was bothered with constipation and diarrhœa. Recently he had passed considerable pus, blood, and mucus, and complained of a bearing-down pain in the upper rectum, which was not relieved by stool. As a rule, prolonged straining was necessary to expel the fæces, though occasionally they were well formed and passed without difficulty. Recently all urine had been voided through the rectum, causing a smarting of the mucous membrane and an inflammation of the skin about the anus. He also complained of pain in the region of the bladder, and up to the time the urine began passing by the rectum he had to urinate at short intervals. When the urine was allowed to stand a thick white sediment formed, composed principally of pus. On one occasion he was unable to pass his water for twenty-four hours because something seemed to block the urethra, but by rubbing himself over the bladder finally succeeded.

Examination.—Examination revealed the presence of a stricture which was almost complete. The rectum was ulcerated at this point and acutely inflamed everywhere as a result of the urine, which constantly dribbled through the constriction. The calibre of the bowel was obstructed principally by a hard, oval, movable tumor about the size of a hen's egg. I made a diagnosis of stone in the bladder, for it did not present that peculiar sensation to the finger received from a carcinomatous mass. A sound was introduced, and by careful manipulation I was able to outline a large stone pressing the rectum back against the bony structures. The patient was placed in the hospital and prepared for operation. My colleague, Dr. Jabez N. Jackson, was called in, and we proceeded to make a perineal section, making an incision from a point midway between the tuber ischii and the anus on one side to a similar point on the other, the central point of the cut being about three quarters of an inch anterior to the anus. This gave an abundance of room, and by the aid of a guide the bladder was quickly opened and the stone located. We attempted to crush it, but were unable to do so. Dr. Jackson tried a number of times with various kinds of forceps to remove it, but they would slip off. We had about decided to close up the perineal wound and do the suprapubic operation when I succeeded in getting a firm hold with a strong lithotomy forceps. Two students held the patient on the table while Dr. Jackson and myself pulled with all our might. Moving the forceps from side to side after the fashion used in pulling teeth, we finally extracted the stone I now pass for inspection. It is the largest stone I have ever seen removed by the perineal route; it weighs four ounces and a half, and it is easy to understand how it could produce stricture and ulceration of the rectum. After the removal of the stone the stricture was broken up, the ulcers curetted, the rectum irrigated, and the patient placed in bed. After the operation the urine passed through the perineal wound. This continued for a year, when it closed. The rectum was irrigated daily with a weak silver solution. Biweekly a No. 10 Wales bougie was passed without difficulty and the ulceration treated with the balsam of Peru. Under this treatment he gained rapidly in weight and returned home at the end of four weeks feeling like a new man. He had no pain either in the bladder or rectum, and his bowels acted naturally each morning. He was kept under observation for two years. During the latter ten months of this time he was perfectly well, the urinary perineal fistula following the operation having healed without operative interference.

THE ELEMENTS OF A GOOD CLIMATE.

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THIS paper was suggested by the following desperate appeal and criticism recently made to me by a bright, promising young lawyer and official of the East: "Where on this earth can I be benefited? . . . Doctors seem to have such radically different views on climate. They seem to send people away here and there and everywhere on fancies. Four different doctors in the East have sent me to as many climates, varying in kind, as you may judge are prevalent in such places as Atlantic City; Augusta, Georgia; the Adirondacks, and Asheville, North Carolina."

This appeal and criticism is different from many others which desperate health-seekers make to the resort physician only in its wording; it is the wail of those who lose hope and confidence from disappointment in the professional promises, encouragement, or advice given them and in the climatic conditions vaunted to them.

This patient, a highly cultured and much-appreciated chief executive of a large manufacturing city, had been shifted from pillar to post in a variety of climates, involving drastic changes, in the vain hope of finding the elements necessary to restore his lungs to health, and he thus entered his protest against what he termed the "almost criminal ignorance of the medical fraternity in matters of climate and its application to disease."

I may be indulged, therefore, in the expression of scientifically accepted views on climatology, and I hope that they may prove of some use to those who have had little or no opportunity to study the question satisfactorily.

In the first place, let us understand and keep before our minds that climatological therapy involves the knowledge of conditions pertaining to two subjects, far apart in substance, but closely related in the phenomena of life—viz., the patient himself, and the climate to suit him. It is of little use to know the nature of this or that climate if we know not the condition of the patient we wish to send away, and what kind of reaction is possible in him by the change.

In the following review of the conditions of good climate I would be brief, but the subject is so vast and complicated that I can not cut the details very short.

Climate is the sum total of atmospheric conditions in a locality, and it derives its character from local and general influences. The local influences arise from the local topography—altitude, lakes, and waterways—winds, soil, snows, rains, etc. The general influences which may come from very remote regions arise from distant air currents, lake and sea breezes, general altitudes within a considerable radius, and numerous atmospheric and telluric phenomena dependent on factors widely distributed.

I shall write of such a climate as I have found useful chiefly in the treatment of the majority of respiratory troubles, particularly such as are of a tubercular character. What is needed in a climate to make it a valuable therapeutic agent generally, and for respiratory affections in particular?

Explanations adequate to afford a precise definition of climate are not possible in the present state of scientific knowledge, but we have data which do give us very reliable indications.

For a long time it was supposed that altitude alone was sufficient to constitute a good climate, and that for most cases the higher the better. Admitting that altitude is valuable, it is not the essential element as a remedy. Indeed, there is no one element of climate which is sufficient in itself, and, of all the beneficial factors of good climate, high altitude is one which should often be avoided.

Climate, to be a powerful and generally applicable remedy, should be moderately high; should have a moderately dry air as pure as obtainable; should be free from heavy winds; should be exempt from protracted rains and heavy fogs (such as occur on the plains); should have a soil favoring rapid drainage and evaporation; should have a blue sky and receive bright sun rays five sixths or more of the days of each month; and should be neither depressing when hot nor chilling when cold.

To obtain these conditions one must go to the mountains. Neither the seashore nor the plains offer them. And, to afford the greatest measure of good, the region selected should offer, besides healthfulness, enjoyable scenery—surroundings where flowers, forests, and ground verdure, as well as the topography of the mountains, the valleys, and the beauty of streams, will encourage outdoor life. It should be a country to prevent homesickness and arouse buoyancy, hope, delight, and the pleasure of living, with a strong determination to battle against disease. Let us examine the special conditions which contribute to such a climate. First, altitude. Many gradations exist in which respiratory troubles find relief, and there are differences in each gradation, with various degrees of possibilities as to beneficial results. But, in any event, the benefits depend chiefly on two factors: 1. The rarefaction of the air, which means the lessening of the oxygen pressure, resulting ultimately in increased expansion of the chest, increased red blood corpuscles, and increased hæmoglobin. 2. Dryness of the air, which limits microbial generation and tends to produce desiccation in the respiratory mucous linings. Therefore we may say that altitudes are *tonic and somewhat aseptic and desiccating.*

From these opinions many physicians and myriads of laymen have concluded that all that it is necessary for a consumptive to do to tone the system of the degenerated organism and arrest, if not destroy, the living germ causes within the lungs, is to reach a certain region and to climb higher, higher, and higher.

This reasoning, however, has proved disastrous in many instances. As all-powerful remedies, high altitudes have their contraindications, because of the very vivifying and desiccating properties just enumerated, and also because some strata of air in the high altitudes are strongly inimical to certain disease conditions.

The question of tolerance to climate as a therapeutic agent then deserves to be as carefully weighed as the same question does with regard to other potent remedies applied in different ways. To specify, I may say that, generally speaking, arterial atheroma, fatty degeneration and other cardiac affections, hæmophilia, certain kinds of asthma, and erethism are cases in which high altitudes are contraindicated. As to the latter trouble, some physicians claim benefit at comparatively high points. This may be true of the ordinary nervous tension (though we have grounds to doubt in many cases), but not in those due to tubercular evolution. This kind of erethism seems to be the consequence of a toxic influence which may be classed as a special form of nervousness, and one which may be made worse by high altitudes. This theory, however, is based on a limited observation in this line.

On the other hand, the desiccating power of the air of high altitudes is not without its inconvenience or even damage. It produces irritation of the respiratory mucous membranes to the extent sometimes of causing hyperæmia and blood exudation of the superficial capillaries, followed by the formation of "crusts" in the upper air-passages.

So it is safe to say that, if as much good can be accomplished without resort to high altitudes, these should be avoided. The opinion of the best observers to-day is that this can be done.

Pure Air.—What is pure air? Atmospheric air is composed of "three distinct layers," corresponding with three different zones—low, medium, and high. One layer is next to the ground, in height probably from five hundred to a thousand feet, according to local conditions, and contains whatever impurities may be raised from the earth, habitations, water, etc.

The next layer, about as thick as the first, is clear and free from the impurities of the preceding one; and the third, which may begin at or about four thousand feet (and possibly less, as would appear from observations on low mountains), is in most instances foggy, cloudy, damp, and raw.

The impurities of the air consist of dust, microbes, and water molecules, through which sun rays must penetrate before reaching the earth. Consequently, the atmosphere may vary from a gray, opaque color to a clearness revealing a deep blue sky above, according to the quality and quantity of floating matter in it. Any one can establish these facts from observations of the plains and valleys from some favorable point on the mountains. It is obvious, then, that the bluer the sky the purer the air, and the more beneficial it is, making exception of certain undefined hazy conditions with little or no effective moisture.

Dry and Moist Air.—Water vapor in the air, which I have mentioned as water molecules, can scarcely be called an impurity *per se*, but when it becomes objectionable to certain invalids it should be considered conditionally so.

Springing from the seas and large bodies of water and carried abroad over the continents by the winds, water vapor condenses into clouds, rains, and snows; it is partly dissipated by dry breezes, but chiefly precipitated to the earth and returned to the atmosphere by evaporation, varying in rapidity with the nature of absorption, drainage, and temperature.

We have various degrees of atmospheric humidity expressing the quantity and quality of floating vapor naturally always present to a certain extent. This natural quantity and quality is what might be termed the normal humidity. But there is also a relative humidity, which means an excess over the normal, and this excess may reach the extreme point of saturation of the atmosphere.

It is when the degree of humidity above the so-called absolute or normal affects the system in a detrimental manner that we may declare it objectionable. We may appreciate this condition when air impresses one as being damp. On the contrary, the absence of the feeling of moisture in the air indicates comparative and wholesome dryness. Of course, this method of reaching such a conclusion is not scientific, but for want of instruments of record it affords the observer some useful guiding hints which, when taken in connection with the appearance of a clear blue sky during sunshine will yield fairly accurate data for the selection of climate.

The effect of relative moisture on the system is more or less baneful according to its degree and the constitution of the individual. Naturally, it is more detrimental to those suffering from respiratory difficulties. Its influence depends chiefly on three factors: 1. The special action of dampness itself. 2. The additional action of heated moist air. 3. The additional action of cold humidity. The first effect is the baneful opposite of that of comparative (not excessive or absolute) dryness; the second is a fatiguing, prostrating perspiration-producing factor tending to general debility; the third is in part the cause of sudden transitions of body temperature, the penetrating chilliness felt in humid climates in certain seasons, or in all seasons at certain hours.

Thus we see that moisture plays an important rôle in modifying the atmosphere, particularly its temperature, and therefore the results of the latter on the system. Sun rays are not absorbed by air itself. They traverse it without imparting heat to it and reach the soil, which absorbs them more or less, according to its color, but always reflects the heat back into the atmosphere, where it is stored in the water vapor. Consequently, the greater and the more constant is the water vapor in the air during summer, the more intense the feeling of heat stored in it. This is on the principle that one may stand in artificially produced dry, hot air, and breathe it even at 300° to 400° F., as I have myself verified and yet should be scalded by the steam of a kettle at the boiling point.

At the other end of the thermometer the same intensity of feeling is experienced with cold, moist air; it is chillier and more penetrating than cold, dry air.

Fogs, Rainfalls, and Snows.—The world is flooded with literature claiming marvelous freedom of this and that locality from fogs of any kind. Many of these writings contain gross exaggerations, most of which may be traced to selfish motives. As Lauth well says: "There are two kinds of fogs: one light, motile, of short duration, depending on local or accidental circumstances; the other dense, depending on bad weather." The former are not uncommon in mountainous regions, particularly on the appearance of the sun's rays in the morning in the fall or spring. Among these may be classed mountain haze. They do not inconvenience patients seeking the air cure. Indeed, those who run to shelter when such fogs appear are more susceptible to colds, so called, and scarcely ever inure themselves to stresses of climate. They are usually those naturally indolent or timid, and those who see no good in any climate and would ordain one to suit their own peculiarities. The statement made in jest that the hazes mentioned are "dry fogs" has had its origin partly in a belief and partly in facts. Lauth says that "the mountaineers" of the European resorts thus designate them because they do not give the impression of dampness to the body, in contrast with the fogs of the plains and the third or upper layer of the atmosphere, which do give rise to such chilly feelings. Those who have lived long enough in mountain regions, particularly western North Carolina, can testify to the truth of this opinion, notably those who have recovered their health here after sojourning in vain in such dry altitudes as those of the Rockies.

In western North Carolina there occurs an occasional morning fog, which disappears early in the day and leaves the air dry and clear and the sky blue.

One may be outdoors in the midst of it even in the fall and not feel the impression of cold dampness. It is a fugitive fog, arising from the valleys and dissipating itself in the air as it travels upward over the mountain sides. Experience and investigation prove that it is not in the least injurious. Indeed, I believe such fogs lift with them on their flight upward above the mountains, whence the winds carry them away, myriads of dust particles and microbes, which are retained in the mist, and therefore render the atmosphere pure and for a time more or less aseptic. They act as the rain, only in inverse manner.

The other fogs, chiefly plain fogs, are, on the contrary, damp, and, while they may engage dust and microbes, they are too persistent, too raw, or too oppressive from heat, and often dissipate themselves too near the ground and too slowly to be anything but pernicious in almost every instance.

Rainfalls may be relatively injurious in respiratory diseases—that is to say, it depends on their persistency and the topographical and other circumstances of the locality.

On the other hand, a rain is always more or less a cleanser of the atmosphere, carrying down microbes, dust, and smoke, and leaving the air richer in ozone. In flat lands this cleansing process lasts only until the soil is dry, after which some impurities rise again; in mountainous countries the water runs down the slopes toward the streams, carrying with it the impurities it gathered from the air and the surface of the soil, eventually to the seas. Therefore, a mountainous region is made purer and healthier by occasional rains, as occurs, for instance, amid the delightful Blue Ridge and great Smokies of North Carolina and other regions of North America.

Snows may be considered equally beneficial as rainfalls, only the result of their cleansing power is slower. A snowfall gathers air impurities and weighs them down to the earth, where it retains them until the snow melts. Frost does not kill germs, as a rule, so it follows that snow releases them, with other impurities, when it thaws, and, if on flat lands, they will eventually return to the air, after the drying process, by the power of plain fogs and winds. On the contrary, on mountain sides, snow will carry dust and germs to waterways in thawed streams and rivulets.

While it covers the ground, snow is not objectionable; indeed, it proves beneficial in keeping the air comparatively dry; but when it melts it of course produces moisture.

The moisture of mountain snows disappears more rapidly than that on level ground, on account of the drainage facilities. It will be observed, therefore, that limited snow in mountain regions is, in fact, salubrious; only a little less so at the time of melting, which is not a favorable period anywhere, but far more prolonged and damaging on the plains, low lands, and at the seashore, or where snows are very deep.

The snows of the southeastern mountains consequently are those which contribute their quota of usefulness in the cycle of natural phenomena that render that region "the golden mean" of sanitary climates.

The effects of rainfalls and snows are modified, however, by the nature of the soil apart from the declivities. It is as useful that the soil be sufficiently moist to favor vegetation as it is that it should offer superior chances for a rapid flow of the water that reaches its surface.

A very dry and porous soil without vegetation is in summer too dry and hot, although it is not the depressing heat of warm, moist climates; it is the dry heat of exceedingly hot sun rays striking the body directly, producing an unbearable form of medium insolation. On the other hand, in localities with such soil, bad weather brings about, often very suddenly, a damp, raw, cold, chilling atmosphere, which usually causes bronchial disorders, colds, grippe manifestations, etc. Some resorts in Texas, for instance, suffer from such conditions, which are termed northers. Of the other bad effects of the soil on the atmosphere, we may mention that rocky, gravelly, or sandy soil, denuded of vegetation, retains too much heat and yields too much dust to the air. In windy localities, sandy and gravelly soils are decidedly objectionable, for in sandstorms they raise dust and particles which task the lungs of even the healthy. Indeed, sometimes comparatively large particles of rock fly at a velocity which make them sting the face. These sandstorms are met with, it is claimed, in some parts of Colorado, New Mexico, and Texas, though in many very healthy localities of these States and Territories they are too rare to be seriously objectionable.

A mountain soil not too porous is the best. It affords a quick flow of water and rapid evaporation of remaining moisture.

Sunshine and Temperature.—Sunshine and temperature are among the most potent factors of the tonic properties of climate, and their value depends so much on correlative action that we may with propriety consider them together. Direct sun rays on very dry soil, particularly the sandy and rocky kinds, are in summer too hot from the point of view of insolation, as we have seen, and the moist soils, as in the low localities growing tropical plants, are too hot from the heat of the moisture in the air. So, both are objectionable. But in winter, when the ground is covered with snow, the sunshine of such localities may be sufficient and satisfactory at the high altitudes, even though the atmosphere is cold; in low lands the sun's rays, even in winter, can not overcome the bad effect of moisture on the system.

Outdoor life is a most effective factor in respiratory therapeutics; so that a locality, to be most suitable, should be so located that in summer and winter the greatest number of days possible may be spent out in the air, and should have such an orientation as to receive all the daily sunshine of the winter months instead of only a few hours of it, as in some localities of the Rocky Mountains which are very beautiful in summer.

These wholesome conditions exist in western North Carolina in that plateau which is occupied by Asheville, Victoria, Biltmore, and surroundings, some twenty-two hundred and fifty feet above sea level, protected by moderately high mountains and belts on all sides, affording freedom from heavy winds and storms without restriction of the sunshine. While the process of insolation is the direct cause of temperature, the latter is, after all, the result of the sum total of meteorological factors which we have studied to this point; for it depends at any given time on sun rays, moisture, soil, winds, etc.

So it may be said that numerous local and general conditions may modify it more or less rapidly and in degree at a given hour of the day or night. Besides this, there occur the regular variations of seasons and hours of the day.

The popular idea of being governed by the thermometer in atmospheric temperature, as in the temperature of a closed room, is for practical purposes in gauging atmosphere a mistake. Shade, obliquity of sun rays, currents of air, soil evaporation, and a hundred other conditions may change the degree of heat and vary thermometric readings within a very small radius. One may be cool within a hundred feet of another who may be hot. Consequently, the best thermometer, for extremes at least, is one's body. If one feels cold, he is cold; if one feels hot, he is hot, whatever the thermometer register.

It is reasonable, then, to conclude that climatic temperature should be considered by everybody with due regard to local conditions, and by the physician and the patient with respect to feelings, and the physical, physiological, and disease conditions of the latter. A person with a wasted body and disintegrated blood may not have the same reaction to temperature (so far, at least, as feeling is concerned, and that is important) as a person whose blood is normal and in whom hæmatosis is proper.

Call it a theory if you please, experience demonstrates this fact: One may go out into the open air in a country covered with snow and crisp from cold; the thermometer 20° below zero, or at any other freezing point even lower; the sky clear blue, the sun brightly shining, and *not feel the cold;* and the same person may go in the same clothing (or thicker vestments) into the open air at 20° F. above zero, or any lesser freezing point, in a damp atmosphere, and feel chilled to the marrow, cold until the body shivers and the teeth chatter. The writer has experienced this difference of feeling in different climates at the same temperature—for example, in St. Louis, Missouri, where 15° F. made one feel as if in a box of melting ice, and Asheville, North Carolina, where the same temperature and many degrees colder in last winter's unusual but universal snowstorm braced one to buoyancy and good spirits. The former experience was depressing, productive of catarrhal conditions of the respiratory organs, distinctly damaging to so-called "lungers," if I may be permitted this striking expression of a class of health seekers; the latter was exhilarating, tonic to a high degree, and in no wise detrimental to the respiratory organs of the feeblest invalid, while it was decidedly beneficial to the semi-invalid capable of outdoor jaunts.

A great deal of much value can be written on temperature, but this article should not go to the length necessary, nor would the editor, I imagine, be tempted to devote all of his columns to this discussion. Suffice it to say, in concluding this question, that temperature, from a climatic standpoint, is what it feels to one; that medium cold dry air, cool dry air, and medium warm dry air are equally good, and the best general atmospheric tonics for the vast majority of cases; that the very same degrees of temperature as these in a *damp* atmosphere are grave depressants, producers of respiratory catarrh, and eventually prove good fertilizers of human and animal tissue for the development of germs.

This I have written with actual conditions before my mind, as I have found them by personal experience, travel, investigations, and considerable literature since the year 1892.

Those climates which I have not had the opportunity to study by personal observation and experience on the ground, I have investigated from the best literature obtainable and the experience of other travelers, leaving aside, however, the assertions conflicting with the laws of natural sciences and those tinged with selfish motives.

I may be asked what climate I have found the best for the cure of respiratory troubles, and in giving a reply I may in turn be accused of selfish motives. But, inasmuch as I have chosen, as the most generally beneficial of all localities I have investigated, one to which I was not driven by necessity, but rather by choice and to cure a most pernicious case of malaria—one which I chose after some years of unbiased studies and after some months spent in the most lauded climates of the country immediately prior to my selection—I trust to escape such criticism from all the unbiased members of the profession. I prefer points in western North Carolina because this country does offer the maximum of advantages for recovery from respiratory diseases and other affections, such as malaria, *the year round,* and of these I prefer the localities in and about Asheville, because this city is at work trying to perfect a system of sanitary police. But the salubrious region includes, during certain seasons, the southern slopes of the mountains. I find in these regions the nearest approach to the sum total of conditions and circumstances which, as I have attempted to explain herein, combine to make a healthful, enjoyable, curative climate. Doubtless many other places are as good, and some perhaps better, but I have had no opportunity to verify the claims made for them. I disparage no place here.

Now, as a supplement, permit me just one word more. I address particularly those who would send patients away for, or who would seek, the "climate cure." The grave mistake is often made of overexercising, mountain climbing, etc., without regard to the actual condition of the disease; or of unwisely forced eating; or of fanciful dieting; or of allowing miserable sanitary conditions in their quarters; or using alcoholic stimulants to excess; or shutting themselves up at every little weather variation; or of leading an excessively indolent life; or of overdressing—wearing, for instance, several shirts, night and day, etc. A physician should manage and advise every case. While indiscretions may not be fatal in slight respiratory difficulties, they are always damaging, often retard and arrest progress, and too frequently prevent recovery. As to tuberculosis, there is probably not a sufferer from it, be it ever so slight, whose own judgment is trustworthy in minding and conducting his own case. This applies to doctors as well as laymen. I shall not argue why this is so, but it is true.

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THE PROPER CARE OF THE INFANT'S NURSING BOTTLE;

AN APPARATUS FOR THE PERFECT STERILIZATION OF THE SAME, COMBINED WITH A PASTEURIZER AND STERILIZER FOR MILK.

By THERON WENDELL KILMER, M. D.

A BABY'S bottle is often the incubator in which many a case of cholera infantum is hatched, and in more cases than we would suppose is it accountable for the summer diarrhœas of children. A dirty nursing bottle is certainly a thing to be guarded against. Many a so-called *clean* bottle is as far from being actually clean as are the hands of a surgeon which enter the abdominal cavity without the most strict antisepsis. Often we hear the argument advanced by some few mothers and nurses that "many bottle-babies have been reared in years gone by without such strict care having been paid to their nursing bottle, and why will not babies of to-day get along just as well without all this fuss being made about them?" The old typhoid-fever argument which we have heard advanced by some rural inhabitant that "we have used this well water for years, and look how healthy we all are! Why should we reline our well or repair the drain?"—this argument, I say, is just as flimsy as the one advanced regarding the dirty nursing bottle. Probably some mothers rear babies using dirty nursing bottles; probably some families drink impure well water for years and do not get typhoid fever; *but,* let there once break out an epidemic of cholera infantum on the one hand, or a few cases of typhoid fever on the other, and *then* notice the effect upon the health of the "dirty-bottle" baby, or the community using the so-called *pure* well water!

The proper care of nursing bottles is too often sadly neglected, especially during the period from the time the bottle has been drained by the baby to the time when it is once more to be filled with a newly prepared feeding. As soon as a child has completed a feeding the bottle should be thoroughly rinsed in *cold* water and scrubbed with a bottle brush (such a brush may be obtained at any house-furnishing store). It should then be filled with cold water and allowed to stand in a clean place for several hours. A good plan is to have two sets of bottles, using each set on alternate days.

When the contents of all the bottles for a day's and night's feeding has been consumed and the bottles treated in the above manner, they should be boiled before filling with the next new feeding. The method usually employed is to fill each bottle with cold water, set the bottles in a kettle of cold water and allow them to boil for twenty minutes. In using this method we are obliged to wait until the water has become cool before removing the bottles, or to use a towel in handling them. Often, to cool them more rapidly, they are filled with cold water, thus breaking them: if they do not break, this introduces germs which are possibly contained in the water from the hydrant.

To obviate the delay and these embarrassing conditions, I have devised the very simple apparatus illustrated by the accompanying cuts. It consists of three parts: 1. A bottle rack. 2. A tin pail with a cover. 3. A circular bottle guard which, when in position, prevents the inverted bottles from falling out.

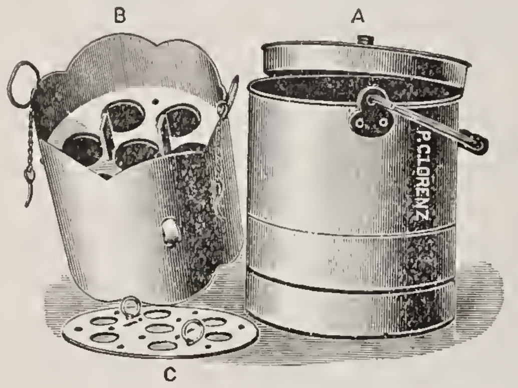

Fig. 1.—*A.* Pail. *B.* Bottle rack. *C.* Bottle guard, which prevents the bottles from falling out.

To use the Apparatus for Boiling Bottles.—Fill the pail with cold water to the level of the single groove; fill each bottle with cold water and set it in the bottle rack. Having filled the rack with bottles, place the bottle guard down over the two upright pins and over the necks of all the bottles. Now put the two movable pins (on chains) through their corresponding holes in the two uprights and place the rack in the pail.

Put on the cover to the pail, set the pail on the stove, and allow the water to boil for half an hour. To remove the rack, lift it from the pail by means of the two handles, take it to the sink, invert it (now using the handles on the bottom of the rack), and let the water run out of the bottles.

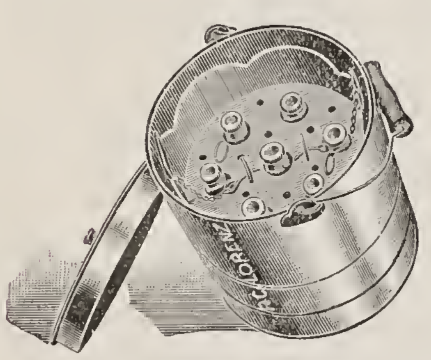

Fig. 2.—Bottle guard fastened in position by pins. It fits over the necks of the bottles.

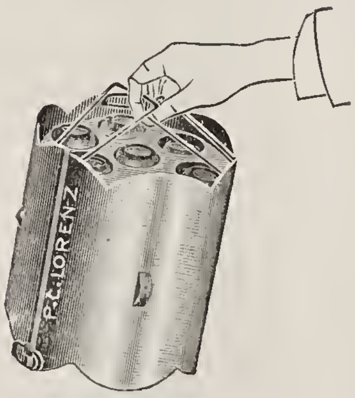

Fig. 3.—Inverted bottle rack. Bottle guard (Fig. 2) prevents the bottles falling.

We may now set the rack aside, *still in the inverted position,* and allow the bottles to thoroughly drain. The bottles have been boiled, removed from the pail, and drained without being touched by the hand. Let the bottles remain in the rack until wanted for the new feeding.

To use the Apparatus as a Sterilizer for Milk.—Fill the pail with cold water to the level of the double groove. Having filled the bottles with the feeding to be sterilized, put them in the rack. Stopper each bottle with a wad of non-absorbent cotton and place the rack in the pail. Put on the cover and place the pail on the stove, allowing it to remain there for an hour after the water has commenced to boil. This subjects the milk to a temperature of 212° F.

To Cool the Milk.—Lift the rack from the pail and bend down the three wire legs from the bottom of the rack. Now set the rack back in the pail of hot water; the rack will be found to project above the edge of the pail owing to the use of the legs. Place the whole apparatus in a sink and allow cold water to run from a faucet into the pail for half an hour. If running water is not available, pour cold water into the pail by means of a pitcher, the cold water gradually taking the place of the hot water. When the bottles are thoroughly cool place them in a refrigerator until wanted.

To use the Apparatus as a Pasteurizer for Milk.—Fill the pail with water to the level of the single groove. Place on the cover and let the water come to a boil. Fill the bottles with the feeding to be pasteurized and set them away in a refrigerator or allow them to stand in cold water and become cool. When the feeding has been cooled, set each bottle in its place in the bottle rack, remove the pail from the stove, and set the rack full of bottles down in the pail of boiling water; put on the cover. Set the pail on a board or wooden shelf for forty-five minutes. This keeps the milk at a temperature of about 160° F. for thirty-five minutes.

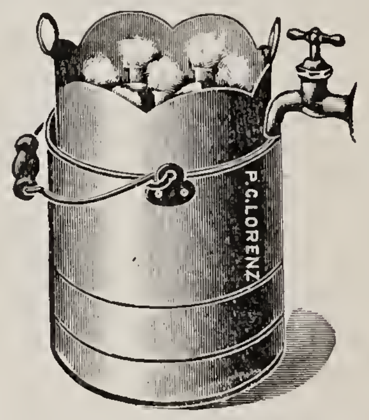

Fig. 4.—Arrangement of apparatus for rapidly cooling the milk.

The milk is now cooled quickly in the same manner as in sterilization, and the bottles are placed in a refrigerator until required.

If all the bottles which the rack holds are not needed for pasteurization, then fill the bottles not needed with cold water; each receptacle in the bottle rack must contain a bottle filled with either milk or cold water.

The fact of the bottles having been previously boiled and allowed to cool anneals the glass and prevents their breaking when plunged in the boiling water during the process of pasteurization. I have never seen a bottle broken in all my experiments perfecting this apparatus. One has been in daily use in my own family for five months, and I have never known a bottle to have been broken by pasteurizing by this method.

By the use of this simple apparatus we have combined three essential features for the rational feeding of bottle-fed infants—namely (1) a perfectly clean bottle, (2) a sterilizer, and (3) a pasteurizer.

It is manufactured in two sizes: one holding ten six-ounce bottles, the other holding seven eight-ounce bottles. The one pail takes the two different-sized bottle racks. It is made by P. C. Lorenz, New York.

170 West Eighty-fifth Street.

Therapeutical Notes.

For Fœtid Bronchitis.—*Progrès médical* for June 16th ascribes the following to Parcellé:

℞ Neutral acetate of lead, Terpine,	of each, 2¼ grains;
Dover's powder	1½ grain.

M.

For one pilule. From three to four daily for children of from eight to twelve years of age.

For Chlorotic Amenorrhœa.—Ἰατρικὴ Πρόοδος for April gives the following:

℞ Phosphate of iron	60 grains;
Aloes	15 "
Hydrochloride of quinine	30 "
Extract of absinthe	45 "
Ergotin	30 "

M.

To make sixty pills, of which from three to five may be taken daily from half an hour to an hour before each meal. Excellent results are nearly always obtained.

Crurine.—This new pharmaceutical product is said by Dr. R. Romme (*Nord médical*, June 15th) to be a rhodanate of bismuth and quinoline, occurring as a yellowish-red powder insoluble in water, in alcohol, and in ether. He has used it successfully in several cases of ulcer of the leg. After subduing œdema and inflammation by means of compresses soaked in a solution of aluminum acetate, he applies the powder to the ulcer and covers the whole with a simple retentive dressing. There is some pain at the moment of the application, but it quickly subsides. However, if the ulcer is large, it is better to mix the powder with an equal amount of starch. The applications are made twice a day. He has found the time required for healing to take place to range from two to six weeks.

For Malarial Fevers.—Dr. D. Palmer Ross (*Journal of Tropical Medicine*, May), surgeon-general, British Guiana, and formerly resident at Sierra Leone from 1885 to 1894, gives the following formulary:

Antipyrine Mixture.

℞ Antipyrine	15 grains;
Carbolic acid and glycerin (1 in 20)	20 drops;
Chloric ether	20 "
Water	1 ounce.

Give this every hour for three hours when the temperature is over 103° F.

In case of vomiting give two drachms every quarter of an hour for three hours.

N. B.—Should this medicine cause difficulty or shortness of breathing, this feeling will be overcome by a dose of brandy.

Fever Mixture.

℞ Bicarbonate of potassium	10 grains;
Nitrate of potassium	10 "
Chloric ether	20 drops;
Carbolic acid and glycerin (1 in 20)	40 "
Water	1 ounce.

Give every three or four hours during fever, and until temperature falls to 101° F.

Quinine Mixture.

℞ Sulphate of quinine	10 grains;
Water	1 ounce.

Give when the temperature is 101° F. and repeat every four hours, and so long as the temperature keeps below 102° F.

Quinine Enema.

℞ Sulphate of quinine (finely powdered)	20 grains;
Water	1 ounce.

Give this as an enema should the quinine mixture cause vomiting, and repeat every six hours as above. (On no account add acid.)

Arsenic Mixture.

℞ Fowler's solution of arsenic	3 drops;
Acetate of potassium	10 grains;
Water	1 ounce.

Give this three times a day for a week after an attack of fever, or when free from fever, if the urine is black or dark-colored.

For Follicular Amygdalitis.—Ἰατρικὴ Πρόοδος for April gives the following:

℞ Beechwood creosote	8 drops;
Tincture of myrrh, Glycerin,	of each . . 900 grains;
Water	1,800 "

M. For a gargle.

Lactic Acid in Infantile Diarrhœa.—Dr. Thomas Bailey (*Gazette hebdomadaire de médecine et de chirurgie*, May 27th), in a Paris thesis, recommends the following in fermentative diarrhœa of sucklings:

℞ Lactic acid	30 grains;
Syrup	300 "
Water	1,200 "

M.

A coffeespoonful of this solution is to be taken a quarter of an hour after each suckling. This dose may be repeated from five to eight times in twenty-four hours in such fashion that the patient takes daily from six to nine grains of pure lactic acid.

For Bronchorrhœa.—Ἰατρικὴ Πρόοδος for April attributes the following to Maragliano:

℞ Benzoic acid	4½ grains;
Tannin	2¼ "

M.

For one wafer or capsule. Prepare thirty such. Four may be taken within twenty-four hours.

The Blueberry in Intestinal Inflammations.—There is nothing new in the use of the blueberry (the berry of *Vaccinium myrtillus*) as an astringent, but Dr. H. Strauss, of Senator's clinic, has lately revived its employment in the form of a soft extract which may be dissolved in warm water (a tablespoonful to half a pint of water) and administered as an enema or made into suppositories according to the following formula, given in the *Klinisch-therapeutische Wochenschrift* for April 29th:

℞ Extract of myrtillus berries	450 grains;
Potassium carbonate	45 "
Distilled water	105 drops;
Cacao butter	900 grains.

M. Divide into thirty suppositories. Two to be used daily.

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THE FALLACIES OF X-RAY DIAGNOSIS.

We have never sought to belittle the value of Röntgen-ray photography in diagnosis, but we have felt from the time when the announcement of Professor Röntgen's discovery was made that there was danger of its being overestimated. Such a startling and unprecedented novelty as a means of seeing into and through opaque objects could not fail to impress unduly those enthusiastic individuals — and they exist in our profession as well as among the rest of mankind, though not, it is to be hoped, in quite the same proportion— who voice their unquestioning credulity by such a cry as, for example, "the machine can't lie," the "machine" being either an ordinary photographic camera or the apparatus employed in making Röntgen pictures. But it has long been known that common photography is capable of distorting the truth to a grotesque degree, and it seems that the Röntgen-ray picture may do the same thing. This is most cogently set forth in the report of a committee appointed by the American Surgical Association three years ago to report upon the medico-legal relations of the x rays. The committee's report was presented at the association's recent meeting by its chairman, Dr. J. William White, of Philadelphia, and is printed in the July number of the *American Journal of the Medical Sciences.*

Among the instances of erroneous x-ray observations reported to the committee or mentioned by it as recorded in recent literature we may cite the following: 1. Dr. B. Farquhar Curtis's case in which a headless pin was supposed to have lodged in the œsophagus, and a scratch on the glass under the gelatin caused what at first seemed to be the shadow of the pin. Fortunately, it was perceived that the outline was too irregular to be that of a pin, no operation was performed, and the pin was passed by the anus. 2. Dr. W. J. Dodd reports the case of a man who was shot in the upper part of the thigh. The scrotum was filled with blood, and a fluoroscopic examination indicated what appeared to be a bullet imbedded in the testicle, but an operation showed that the testicle, though diseased, contained no bullet. 3. In a case mentioned by Dr. W. L. Estes some bits of clothing, coagulated blood, etc., made a shadow which was supposed to be that of a bullet. 4. Dr. Christian Fenger reports a case of two ineffectual operations for the removal of a needle the situation of which was apparently shown by the x rays, but which could not be found. 5. Dr. J. E. Moore writes: "Yesterday an ineffective operation was performed at Asbury Hospital, of Minneapolis, by a very competent surgeon. The skiagraph showed an open safety pin in the trachea, just below the third ring. An opening and thorough search in both trachea and œsophagus failed to reach the pin." 6. Dr. John Owens reports that in a very troublesome case of fracture of the radius and ulna near the wrist, in which one of the bones was wired, the Röntgen picture seemed to show that the wire did not pass through the fragments. 7. Dr. F. S. Watson relates a case in which pictures taken at different times showed a needle in the foot in various situations. It was found at last, but not in the spot shown in any of the pictures. 8. In a case of Dr. De Forest Willard's Röntgen pictures taken at different angles indicated the situation of a bullet to be in the knee joint, at the inner condyle, but it was found firmly imbedded in the posterior surface of the tendon of the patella. 9. Dr. R. H. Reed (*Journal of the American Medical Association*, April 30, 1898) has reported a case of faulty localization of a swallowed pin leading to fruitless exploration of the stomach and œsophagus by gastrotomy and a subsequent decision to perform laryngotomy, which was prevented only by the patient's dying on the table from the rupture of an abscess into the trachea. The pin was found at the bifurcation.

The committee's data show clearly that our present ability to draw accurate conclusions from Röntgen-ray pictures is often very limited, especially in cases of fracture. There is great danger that misleading pictures, which may be made either erroneously or by design, may be admitted as evidence in malpractice cases; yet, how untrustworthy they are, when unsupported by other evidence, is shown by the facts that good clinical results in fracture cases, without impairment of function or palpable deformity, may be made to appear very bad ones in the pictures, and even that fractures may be shown that have no existence, while others known to exist in a recent stage are not shown. Clearly, no conclusion in fracture cases can be invariably based upon Röntgen-ray photography alone, and it is well that such an important body of surgeons as the American Surgical Association has so expressed itself by unanimously adopting the conclusions reached by its committee.

THE EFFECT OF MALARIAL DISEASE UPON PREGNANCY.

The effect of malarial disease upon pregnancy has been carefully studied by Mr. F. H. Edmonds, F.R.C.S., of Georgetown, Demerara, in a paper which appears in the *Journal of Tropical Medicine* for May. The author considers the effect of malarial conditions—intermittent, remittent, and cachectic—on (1) the period from conception to the sixth month, and (2) that from the sixth month to the end of the puerperal period.

Simple intermittent fever, he considers, has no effect upon conception, and, if the attack is mild, no influence on either the mother's life or that of the child. If, however, the temperature rises over, say, 104° F., he finds that abortion is very apt to take place. When acute intermittent fever attacks a pregnant woman in this first period, contractions of the uterus are set up which cause abdominal pain and the womb can be felt hard and firm. Should the temperature, however, remain moderate, *i. e.*, below 104° F., the administration of quinine causes a gradual cessation of the effect upon the uterus, and danger to both mother and child may pass off.

Abortion has been attributed to the use of quinine in pregnancy. An instance was reported by Assistant-Surgeon Balajapal, of the Indian medical service, in the *Indian Medical Record* for October 1, 1898, and cited in the *New York Medical Journal* for December 3d of that year. In this case the abortion set in after the fourth dose of a mixture prescribed for remittent fever had been taken. It is fairly safe to conjecture that quinine administered in any quantity during pregnancy is probably prescribed in consequence of malarial disease, whence, if Mr. Edmonds's view is correct that abortion is prone to occur in pregnancy whenever the temperature is high, it may be that the quinine gets credit for effects which are really due to the malarial disease itself.

According to the author, remittent fever has the same effect on pregnancy as simple intermittent fever, differing only in degree, the fever being usually higher. Abortion is much more common in remittent fever, and is often followed by severe hæmorrhage. A malarial cachexia, however, does not seem to be any bar to conception or to interfere with the course of pregnancy, probably in consequence of the usual absence of high temperature.

It is in the later period of pregnancy, however, that the greatest danger arises. With the onset of the paroxysms, whether of intermittent or of remittent fever, the fœtal movements become very strong and are accompanied by severe pain. Playfair, in his *Science and Practice of Midwifery*, notes the fact that intermittent fever is prone to affect the fœtus *in utero*, causing convulsive movements, sometimes synchronous with those of the mother, at other times dissociated therefrom, but in any case periodic. Further, after the birth of the child attacks synchronous with those of the mother may occasionally be observed, and malarial enlargement of the spleen is often present. But it not infrequently happens that after one or two paroxysms uterine cramp ensues, which limits the fœtal movements till they finally cease, and after a while a further paroxysm results in the expulsion of a fœtus bearing evidence of intra-uterine death. This is almost sure to be the case if the temperature rises much over 104° F.

The appearance of bilious remittent fever during or just after parturition is the most dangerous condition for the mother. The author says: "I have seen young and healthy women pass to the last week of pregnancy in good condition, then fall off, become sallow-looking, owing to low remittent fever; during labor the temperature rises, the tongue gets thickly coated with a yellow fur, the patient becomes very restless, the pains weak and long drawn; after delivery there has usually been gushing of dark fluid blood; then an improvement for—usually—forty-eight hours, when a relapse (another paroxysm?) comes on with higher temperature, deeper jaundice, greater weakness and constipation, which, on relief being given by an enema, results in the passage of a large, black, stinking stool. After five or nine days' alternations—each marked by increasing weakness—the patient dies quietly, with many appearances of puerperal fever, but having had her lochia of good color, quantity, and odor; and having had no uterine pain or tenderness. In these cases the child is frequently strong and healthy, but there is not a more dangerous condition for a woman than to be seized by a malarial remittent during her puerperium."

The author strongly urges the early use of quinine (five grains every four hours is his own prescription) in pregnant patients afflicted by malarial disease, especially during the second period of pregnancy. It seems to us that any supposed danger of abortion from the quinine is most probably based upon a fallacy, and that in cases in which abortion has followed its use when administered for malarial disease, the malaria and not the quinine has been responsible. In that case, it is likely that an examination of the fœtus would have shown indications of intra-uterine death some few days, possibly, prior to the expulsion. This point is well worthy of the attention of practitioners in malarious districts.

A NATIVE INDIAN PHYSICIAN ON THE PLAGUE.

An interesting popular lecture was, according to the *Indian Medical Record* for May 23d, recently delivered at Lucknow by Pandit Hari Datt Pant. It consists of an earnest appeal to the people to take up the matter of preparation for the appearance of the plague among them by backing the government, cheerfully submitting to all the regulations and helping the officials. After recounting what is known of the nature of plague and its mode of propagation, the author insists on the need of early detection and complete isolation, and says:

"Fellow-citizens, let me give you here a friendly warning—do not leave this duty to the government. If you do, you are liable to be visited at untimely hours by officials who, however kind-hearted and honest they may be, are not in touch with you. They have to do their duty—a duty which is unpleasant even at the best of times, and most so when plague is in the house. They have neither the time nor the mind to enter into your feelings. All the horrors of plague in Bombay were due to the unpreparedness of the people to take this responsibility upon their shoulders."

He urges the formation of volunteer corps for each ward of the city to make house-to-house inspections. In such a city as Lucknow, he says, there is no lack of large vacant houses in every ward, and the use of such houses for segregation has given satisfaction to the people of Calcutta. It does away with the disagreeable necessity of sending persons to plague huts, which are naturally looked upon as places of banishment and are more dreaded than the plague itself. In Garhwal people have saved themselves by vacating the village in a body at the first onset of the disease, and now they have become so expert that as soon as they observe that great numbers of rats are dying in a village they leave it at once and take to the jungles, whence they do not return till the disease has died out.

The lecturer seemed to look with favor upon the theory that outbreaks of the plague were started by eating grain that had been stored for a long time. The consumption of such grain, he says, takes place whenever there is a famine, and it is at such times and at places where large granaries are situated that an outbreak very commonly takes its rise. He speaks highly of the results of Haffkine's inoculation, both in preventing and in mitigating the disease, but he is unable to say that its action is as certain as that of vaccination in the prevention of small-pox.

THE TRUE CRIMINALITY OF FAITH CURE.

We have more than once expressed the opinion that the prosecution of faith-cure mongers who have ineffectually treated mentally competent adults at the patient's own free desire was ill advised, such cases involving too many ethical and politic considerations. But a case recorded in the *New York Tribune* for July 9th would seem to be eminently suitable for legal cognizance. A four-year-old boy named Theodore Plausse was burned to death on July 8th at Webster, Massachusetts. His grandfather, a faith-cure advocate, it is said, made no attempt to extinguish the flames, but simply prayed while the child burned to death. Neighbors broke in and extinguished the flames, but too late to save the child's life. Suppose a child fell into a river and a man standing by within reach absolutely refused to even hold out his hand and help the child out, we have little doubt that he could be held accessory to the child's death by drowning. The present case is perfectly analogous, and we sincerely trust that, if the evidence sustains the charge against the grandfather, such sharp and wholesome retribution will be meted out, and its nature so widely disseminated by the press, that the eyes of the less fatuous portion of the public may be opened. There is no difference in kind, but only in degree, between the case in point and that of faith-cure cases in general. If the neglect to help during the accident is criminal, the neglect to help in the results of the accident is also criminal. But since no line of demarcation can be drawn between pathological conditions the result of gross and sudden lesions by accident and those of lesser and more gradual lesions by disease, it must be criminal likewise to refuse physical aids in the latter also. The only difference is that between macroscopic and microscopic causative agencies.

THE DIETETIC TREATMENT OF THE CHANGE OF LIFE.

Doubtless much may be done to mitigate the ailments incident to the menopause without resorting to the use of drugs. Dr. Kisch (*Zeitschrift für diätetische und physikalische Therapie*, iii, 8; *Centralblatt für innere Medicin*, June 30th) thinks the dietetic treatment of importance. Overfeeding, he says, should be avoided. The diet should be of a mixed character, and coffee, tea, and alcoholic drinks should be eschewed. The free drinking of water is highly to be recommended. Fattening foods must not be allowed if there is a tendency to obesity. In cases in which menstruation stops suddenly or at a comparatively early age, and the complaints of the climacteric are at the same time aggravated, a systematic course of milk is very useful.

"TOMMY ATKINS" PROMOTED.

The *Revista de Medicina y Cirugía Prácticas* for June 7th makes an amusing error in reporting Mr. Treves's remarks at the Royal Medical and Chirurgical Society of London on Bullet Wounds in the Anglo-Boer War. Among the many learned authorities referred to by Mr. Treves we find the following: "The flesh wounds produced by Mauser and Lee-Metford bullets are simple and very small. Dr. Tommy Atkins compares them to the bite of a bedbug." Of course, even an editor can not be expected to know the name of every medical authority in every country, or to realize the esoteric meanings of common expressions in other languages than his own; but we thought that the *sobriquet* "Tommy Atkins," as representing the British soldier, was known all over the civilized world.

SUBCAPSULAR NEPHRYDROSIS.

A rare if not unique pathological condition is described by Dr. Kirmisson (*Bulletins et mémoires de la Société de chirurgie de Paris*, xxv, p. 495; *Centralblatt für Chirurgie*, June 30th). It consisted in a large collection of urine between the kidney and its capsule. Of course the cyst must have communicated with the interior of the kidney, but the organ itself was not distended. The author stitched the cut edges of the capsule to the skin, establishing a urinary fistula. The patient was a child.

COUNTY REGISTRATION IN THE STATE OF NEW YORK.

A correspondent points out what he considers as a defect in the medical law of the State, namely, that a physician registered in one county under the old law can not change his residence to another county and be registered there, whereas those who are registered under the present law have registration open to them in any county. Our impression is that our correspondent's statement is correct, and we can readily understand that in some instances a hardship may be worked by the condition described. Whether or not it is worth while to seek for remedial legislation, however, is doubtful, since the hardship is one that can always be got over by passing the State examination. This, to be sure, is not an easy matter for an old practitioner, but it is seldom wise to try to alter a law except for grave reasons.

FILTRATION OF THE CROTON WATER.

We learn from the *New York Tribune* for July 9th that in the near future the Croton water supplied to the city is to be filtered on modern principles. We trust that this information is correct, for it is by no means creditable that the authorities of this great city should be behindhand in adopting sanitary principles now so widely applied.

A "DIVINE HEALER" UNDER INDICTMENT.

The *Sun* prints a dispatch from Boston to the effect that one Francis Truth, a "divine healer" under indictment for fraudulent use of the mails, having pleaded not guilty, has retracted the plea and now pleads guilty. We hope the retraction is due to his expectation of being convicted.

FOURTH-OF-JULY TETANUS.

It is reported as we go to press that there is in Bellevue Hospital a boy suffering with tetanus consequent on an injury to his hand by an explosion of a blank cartridge on the Fourth of July. It is to be hoped, in view of last year's experience, that the germ of the disease did not come from the cartridge.

THE DOCTOR'S CARRIAGE.

"There is many a true word spoken in jest," says the proverb. The following witticism, quoted by the *Medical Dial* for July from a New York weekly, must sadden us from a consciousness of the humiliating truth contained in it, even while the incongruity of the idea, which is the soul of humor, amuses us:

Scene 1.—*Stranger* (midnight): I should like you to go to No. 999 Suburb Avenue to see my wife.

Doctor: All right; I'll be ready as soon as I can get my carriage. Wait and you can ride with me.

Scene 2.—*Doctor* (two hours later): I can see nothing the matter with your wife except that she seems pretty mad at being waked up.

Stranger: Remarkable recovery, I must say. Here's your dollar.

Scene 3.—*Wife* (five minutes later): Why in creation did you bring a doctor to see me?

Husband: The street cars had stopped running and it was cheaper than hiring a cab.

It is humiliating to reflect on the fact that, in many parts of the world, a doctor should have to give his time, his professional skill, and his transportation expenses for less remuneration than would be exacted for the latter alone by a cabman.

THE SANITATION OF "LITTLE ITALY."

Some foul tenement houses having been razed in the quarter of the city known as "Little Italy," the denizens of the district, it appears, have been making use of the unoccupied land as a dumping ground for garbage. This, of course, should not have been allowed, but we are glad to learn that the work of disinfection has been begun by the health officials.

ITEMS.

Infectious Diseases in New York.—We are indebted to the Sanitary Bureau of the Health Department for the following statement of cases and deaths reported for the two weeks ending July 9, 1900:

DISEASES.	Week ending June 30.		Week ending July 9.	
	Cases.	Deaths.	Cases.	Deaths.
Typhoid fever	29	7	25	10
Scarlet fever	95	4	76	8
Cerebro-spinal meningitis	0	6	0	6
Measles	202	24	179	16
Diphtheria	285	35	232	36
Laryngeal diphtheria (croup)	4	7	6	0
Tuberculosis	123	133	217	136
Chicken-pox	15	0	6	0
Small-pox	0	0	1	0

The Reorganization of the National Red Cross Association took place, according to the *New York Tribune* for July 11th, at Washington on July 10th under the act of incorporation passed at the last session of congress and approved by President McKinley on June 6th. The American association has been in existence since 1881 under the provisions of the Geneva Convention, and for the last twelve years has been aiming at national recognition. At this meeting the old association passed out of existence and a new advisory body was chosen, which will meet some time within the next ten days to elect officers. The officers of the Red Cross were entertained by Miss Barton at her home at Chevy Chase.

The following were elected as members of the new board, the first five named to serve for three years, the second five for two years, and the remaining five for one year: Clara Barton, B. H. Warner, Stephen E. Barton, Mrs. Ellen Spencer Mussey, Walter P. Phillips, of Connecticut; William Flather, W. H. Michael, Samuel E. Jarvis, of New York; A. C. Kaufman, of South Carolina; Joseph Gardner, of Indiana; General Daniel H. Hastings, of Pennsylvania; Mrs. J. Ellen Foster, Mrs. James Tanner, H. B. F. Macfarland and Mrs. Phœbe Hearst, of California.

Marine-Hospital Service Health Reports.—The following cases of small-pox, yellow fever, cholera, and plague were reported to the surgeon-general during the week ending July 7, 1900:

Small-pox—United States.

Washington, D. C	June 23–30	4 cases.	
Chicago, Ill	June 23–30	2 “	
Evansville, Ind	June 23–30	2 “	
Indianapolis, Ind	June 23–30	1 case.	
Michigan City, Ind	June 24–July 1	1 “	
Wichita, Kan	June 23–30	6 cases.	
Covington, Ky	June 23–30	16 “	
New Orleans, La	June 23–30	12 “	3 deaths.
Baltimore, Md	June 23–30	3 “	
Cumberland, Md	June 16–23	3 “	
Fall River, Mass	June 23–30	3 “	
Cincinnati, Ohio	June 19–26	10 “	
Cleveland, Ohio	June 23–30	10 “	
Portsmouth, Ohio	June 23–30	1 case.	
Youngstown, Ohio	June 23–30	2 cases.	
Pittsburgh, Pa	June 23–30	3 “	

Small-pox—Foreign.

Prague, Austria	June 8–16	8 cases.	
Hongkong, China	May 19–June 2	1 case.	
Cairo, Egypt	May 20–June 3		10 deaths.
Liverpool, England	June 8–16	2 cases.	
London, England	June 8–16	15 “	
Manchester, England	June 8–16	1 case.	
Lyons, France	June 2–16		7 “
St. Etienne, France	June 1–15	3 cases.	
Frankfort-on-the-Main, Germany	June 8–16		1 death.
Athens, Greece	June 8–16	2 “	
Bombay, India	May 28–June 5		13 deaths.
Calcutta, India	Apr. 28–May 5		40 “
Karachi, India	May 28–June 3	12 “	7 “
Nagasaki, Japan	June 1–10	1 case.	
Osaka and Hiogo, Japan	June 2–9	1 “	
Chihuahua, Mexico	June 8–16		1 death.
Mexico, Mexico	Apr. 30–June 17	164 cases,	100 deaths.
Vera Cruz, Mexico	June 17–23		7 “
Moscow, Russia	June 2–9	6 “	5 “
Odessa, Russia	June 8–16	5 “	
St. Petersburg, Russia	June 2–16	71 “	18 “
Warsaw, Russia	June 2–9		3 “
Glasgow, Scotland	June 15–22	66 “	
Madrid, Spain	May 19–June 2		26 “
Straits Settlements, Singapore	May 12–19		1 death.
Montevideo, Uruguay	May 12–26	1 case.	

Yellow Fever—Foreign.

Barranquilla, Colombia	June 8–16	40 cases,	18 deaths.
Cartagena, Colombia	June 1–13	8 “	3 “
Havana, Cuba	June 13–20	8 “	3 “
Santa Clara, Cuba	June 21–25	4 “	
Vera Cruz, Mexico	June 16–23		9 “

Cholera.

Bombay, India	May 29–June 5		51 deaths.
Calcutta, India	Apr. 28–May 5		71 “

Plague—Foreign.

Aden, Arabia	June 2–9	11 cases,	7 deaths.
Hongkong, China	May 19–June 2	170 “	157 “
Port Said, Egypt	May 28–June 4	135 “	57 “
Bombay, India	May 28–June 5		131 “
Calcutta, India	Apr. 28–May 5		216 “
Karachi, India	May 27–June 3	16 “	12 “
Formosa, Tamsui, Japan	May 1–31	379 “	279 “
Osaka, Japan	June 12–15	1 case.	
Shidzuoka, Japan	June 12–15	1 ‘	

The Death of Dr. Ernest Cadet de Gassicourt, of Paris, well known for his valuable contributions to pædiatries, is announced in the *Gazette médicale de Paris* for June 16th. He was in the seventy-third year of his age.

Army Intelligence.—*Official List of Changes in the Stations and Duties of Officers serving in the Medical Department, United States Army, from June 30 to July 7, 1900:*

AGRAMONTE, ARISTIDES, Acting Assistant Surgeon, United States Army, will proceed to Santa Clara, Cuba, on sanitary duty, and return to Havana.

BEATTY, WALTER K., Acting Assistant Surgeon, United States Army, is authorized to appear before the examining board for examination for appointment as assistant surgeon.

GIBSON, ROBERT J., Major and Surgeon, United States Army, is granted leave of absence for one month and fifteen days.

STEPHENSON, WILLIAM, Captain and Assistant Surgeon, United States Army (now major and surgeon), will proceed *via* San Francisco and Manila to Taku, China, and report to CHAFFEE, ADNA R., Brigadier-General, United States Volunteers, commanding the United States forces at or near that place.

SUMMERALL, W. B., Acting Assistant Surgeon, United States Army, will proceed from Matanzas to Santa Clara, Cuba, for temporary duty at that post.

The following medical officers are assigned to duty as chief surgeons of the several districts in this department: To the first district, BANISTER, W. B., Major and Brigade Surgeon; to the second district, PENROSE, GEORGE H., Major and Brigade Surgeon; to the third district, JOHNSON, RICHARD W., Major and Surgeon.

Naval Intelligence.—*Official List of Changes in the Medical Corps of the United States Navy for the Week ending July 7, 1900:*

COOK, F. C., Passed Assistant Surgeon. Detached from the Naval Hospital, Norfolk, Virginia, and ordered to the Naval Hospital, Washington.

LEYS, J. F., Passed Assistant Surgeon. Detached from the *Franklin* and ordered home to await orders.

NORTON, O. D., Surgeon. Detached from the *Monadnock* and ordered to duty with marines at Taku, China.

WOODS, G. W., Medical Director. Will be detached from the Naval Hospital, New York, and placed on the retired list, August 24, 1900, having reached the age of sixty-two years.

Marine-Hospital Service.—*Official List of Changes of Stations and Duties of Commissioned and Non-Commissioned Officers of the United States Marine-Hospital Service for the Seven Days ending July 5, 1900:*

STONER, G. W., Surgeon. Detailed as temporary medical purveyor during absence, on leave, of the medical purveyor.

CARTER, H. R., Surgeon. Upon being relieved from duty at Havana, Cuba, directed to report at Washington for orders.

CARRINGTON, P. M., Surgeon. Granted leave of absence on account of sickness for fifteen days from July 5th.

MAGRUDER, G. M., Surgeon. Bureau order of June 15th, directing him to proceed to Memphis and assume command of the service, revoked, and directed to proceed to New Orleans and assume command of the service.

Geddings, H. D., Passed Assistant Surgeon. Detailed as acting director of the Hygienic Laboratory during the absence of the director.

Smith, A. C., Passed Assistant Surgeon. Directed to proceed to New York (Stapleton), and report to the medical officer in command for duty and assignment to quarters. Granted extension of leave of absence for eight days.

Rosenau, N. J., Passed Assistant Surgeon. Upon completion of detail at the International Congress of Medicine, Paris, France, to visit the Pasteur Institute and other laboratories for special temporary duty.

Gardner, C. H., Passed Assistant Surgeon. Granted leave of absence for twenty-one days from July 19th.

Blue, Rupert, Passed Assistant Surgeon. Granted leave of absence for fifteen days.

Mathewson, H. S., Assistant Surgeon. Directed to proceed to Boston, and report to the medical officer in command for duty and assignment to quarters.

Hobdy, W. C., Assistant Surgeon. Directed to proceed to Honolulu, Hawaii, and report to Carmichael, D. A., Surgeon, for duty.

Thornbury, N. J., Assistant Surgeon. Relieved from duty at San Francisco, and directed to proceed to Port Townsend, Washington, for temporary duty.

Hallett, E. E., Acting Assistant Surgeon. Granted leave of absence for two days from July 5th.

Society Meetings for the Coming Week:

Monday, *July 16th:* New York Academy of Medicine (Section in Ophthalmology and Otology); Chicago Medical Society.

Tuesday, *July 17th:* New York Academy of Medicine (Section in General Medicine); Buffalo Academy of Medicine (Section in Pathology); Ogdensburgh, New York, Medical Association; Syracuse, New York, Academy of Medicine; Medical Society of the County of Kings, New York; Baltimore Academy of Medicine.

Wednesday, *July 18th:* New Jersey Academy of Medicine (Newark).

Thursday, *July 19th:* Brooklyn Surgical Society; New Bedford, Massachusetts, Society for Medical Improvement (private); Medical Society of City Hospital Alumni, St. Louis.

Friday, *July 20th:* New York Academy of Medicine (Section in Orthopædic Surgery); Clinical Society of the New York Post-graduate Medical School and Hospital.

Births, Marriages, and Deaths.

Married.

Babbitt — Hall.—In Newton, Massachusetts, on Thursday, June 28th, Dr. Frank Cole Babbitt, of Hartford, Connecticut, and Miss Ethel Hall.

Cilley—Hollis.—In Concord, New Hampshire, on Monday, July 9th, Dr. Arthur H. Cilley, of New York, and Miss Anne R. Hollis.

Collins—Toohey.—In Schuylersville, New York, on Saturday, June 30th, Dr. John Collins, of Schenectady, New York, and Miss Mary Toohey.

McCurdey — Newton.—In Norfolk, Virginia, on Saturday, June 30th, Dr. Neil Augustus McCurdey and Miss Virginia Farragut Newton.

Stafford—Livermore.—In New York, on Tuesday, June 19th, Dr. James Stafford and Miss Ella W. Livermore.

True—McPhail.—In Boston, on Saturday, June 23d, Dr. Carterett True and Miss Elizabeth A. McPhail.

Turner—Van Nortwick.—In Troy, New York, on Monday, July 2d, Dr. G. F. Turner, of Streator, Illinois, and Miss Charlotte E. Van Nortwick.

Wolf—Weil.—In Rochester, New York, on Tuesday, July 3d, Dr. Harry Sheffield Wolf, of Memphis, and Miss Ida Weil.

Died.

Ashhurst. — In Philadelphia, on Saturday, July 7th, Dr. John Ashhurst, Jr., formerly of the United States Army, in the sixty-first year of his age.

Gauntt.—In Burlington, New Jersey, on Saturday, July 7th, Dr. Franklin Gauntt, formerly of the United States Army, in the seventy-seventh year of his age.

Skene.—In Highmount, New York, on Wednesday, July 4th, Dr. Alexander J. C. Skene, in the sixty-second year of his age.

Obituaries.

JOHN ASHHURST, JR., M. D.,

OF PHILADELPHIA.

One of the foremost teachers and practitioners of surgery was the late Dr. Ashhurst. He took his medical degree from the University of Pennsylvania in 1860, and subsequently became a prominent member of the teaching corps in that university's medical department. Dr. Ashhurst served with distinction in the medical corps of the army during the civil war, and he turned his military experience to good account in his writings. He was well known as the editor of a six-volume variorum work on surgery, a monument to his industry and learning.

ALEXANDER J. C. SKENE, M. D., LL. D.,

OF BROOKLYN.

A most useful and exemplary career was closed on July 4th with the death of Dr. Skene, a physician known all over the world as a careful and systematic worker and as a man of considerable originality in surgical work. Dr. Skene was a Scotsman by birth, but he came to the United States before he was out of his 'teens, and his professional attainments were the result of his American teaching and observation. He took his medical degree from the Long Island College Hospital in 1863, and for the greater part of his subsequent career he was a prominent worker in that school. Dr. Skene was a frequent contributor to medical journals and to the proceedings of societies, and he was the author of several excellent books. His best-known work was in urinary diseases of women, and he will always be remembered in connection with the paraurethral glands which bear his name. He was a man of artistic feeling and a sculptor of no mean ability. He was the author of one work of fiction.

Pith of Current Literature.

The Journal of the American Medical Association, July 7, 1900.

Paroxysmal Tachycardia. By Dr. Joseph M. Patton.—One point in this paper seems worthy of notice, and that is that our attention is called to the essential nature of tachycardia. The author takes exception to Allbutt's somewhat sarcastic arraignment of the term "tachycardia" to denote various symptomatic states of increased rate of heart action, and also to Anders, who uses the term "tachycardia" to express those neurotic instances of increase of the heart rate such as occur in certain nervous conditions, with blood changes from toxic agencies, shock, fright, etc. He believes that the use of the term "tachycardia" in relation to the ordinary symptomatic forms of rapid heart is more or less pedantic. For instance, in connection with hysteria and other neurotic states, we see, at times, instances of a more or less persistent rapid heart—pulse rate 120 to 140 or 160—presenting marked variations in rate, but not the paroxysmal feature peculiar to essential tachycardia and to which the application of the term "tachycardia" would be justifiable. There seems to be no unanimity of opinion as to its ætiology.

Experimental and Clinical Notes on the Subarachnoid Space. By Dr. Dudley Tait and Dr. Guido Gaglieri.—As an easy, safe, and practical route leading to the subarachnoid space, the authors propose the "low cervical" route in the sixth cervical space. The cerebrospinal fluid possesses none of the properties of lymph, and the cerebral perivascular lymphatic sheaths do not empty into the subarachnoid space. Liquids injected by lumbar puncture diffuse rapidly toward the different cavities of the brain and subsequently reach the cortex. Subarachnoïd injections of cocaine are devoid of danger if made with certain precautions, and the extent and duration of the analgesia thus produced is generally in direct proportion to the amount of drug injected, and the post-operative symptoms are never disagreeable or lasting.

The Surgery of Biliary Calculi. By Dr. William D. Haggard, Jr.

A Case of Perforating Gastric Ulcer. By Dr. Allen Jones.

Review of the Present Status of Jonnesco's Operation. By Dr. Marcel Hartwig.

Common but Generally Unrecognized Symptoms of Eye Strain. By Dr. Elmer G. Starr.—One of the most frequent of them is a pulling or drawing or tense feeling in the back of the neck. This pain often radiates down the back and to the shoulder or may even manifest itself as a pain in the side. As it is present in about eighty per cent. of all cases of refractive error and disappears upon the correction of the visual error, Dr. Starr considers it as almost pathognomonic of eye strain.

Diseases of the Pancreas. Review of the Present Status of Knowledge Concerning Them. By Dr. Crayke Priestley.

Medical Record, July 7, 1900.

The Non-suppurative Inflammations of the Brain, with Report of a Case of Hæmorrhagic (Malarial?) Encephalitis. By Dr. Charles L. Dana and Dr. M. G. Schlapp.

Preliminary Report on the Presence and Nature of Parasitic Amœbæ (Cancriamœba Macroglossa) in the Epithelial Carcinomata. By Gustave Eisen, Ph. D.—The methods of differentiating these amœbæ, staining, methods of propagation, and general characteristics are treated of in this paper. That they are the cause of the characteristic structure of epithelial carcinomata is demonstrated. A constant struggle is going on between the cancriamœbæ and the epithelial cells. These cancriamœbæ are distinguished from leucocytes by their larger size 20–30 μ in length, and also by their possession of a vacuole, an organ never found in the leucocyte. Their acute sensitiveness to cold suggests the treatment of carcinomata by freezing. The article is illustrated by six figures.

Three Cases of Vascular Tumor of the Orbit: Two Cured by Operation, One Apparently Cured Spontaneously. By Dr. Charles Stedman Bull.

Fistula in Ano: its Relation to Phthisis. By Dr. Samuel S. Gant.—The regularity with which fistula and phthisis occur in the same individual preclude any explanation of the phenomenon as a coincidence, and Dr. Gant's experience has led him to believe that fistula of the anus is usually secondary to tuberculous disease of the lungs. All fistulæ, irrespective of kind, should be dealt with radically by an operation, should the patient's condition permit. Tuberculosis of the anal region should be treated in the same manner as in other parts. The teachings of writers who believe that the cure of a fistula will result in a development of phthisis is erroneous.

Medical News, July 7, 1900.

The Hospital Governor and His Staff: being a Glance at the Personnel of a Modern Hospital and a Plea for a Permanent Resident Staff. By Dr. Thomas J. Hillis.

The Treatment of Tetanus. By Dr. Alexander Lambert.

The Immunizing Cure of Hay Fever. By Dr. N. Holbrook Curtis.—The author's treatment consists in the internal administration of the watery extract of certain flowers and their pollen, as well as the hypodermic injection of small doses. In several cases of golden-rod and lily-of-the-valley corasthma, the administration of the *Solidago odora* and *Convallaria majalis* has been followed by a cure in a few days. If his theory that this rhinitis vasomotor periodica or corasthma ambrosiæ may be prevented by giving from two to ten drops of the fluid extract of *Ambrosia artemisiæfolia t. i. d.* in water *p. c.* during the two weeks preceding the paroxysm is correct, the author will consider with becoming modesty that he has heralded what he believes to be a great discovery.

Significance of the Stool in Infantile Diarrhœas. By Dr. William Edgar Darnall.

The Philadelphia Medical Journal, June 30, 1900.

Questions of the Day in Medicine. By Dr. J. M. Da Costa.

Angina Pectoris. By Dr. Clifford Allbutt.

Especial Hospitals for Consumption among the Poor in Our Cities. By Dr. Edward O. Otis.

A New Pathogenic Mold formerly Desribed as Protozoon: Coccidioides Immitis Pyogenes. By Dr. W. Ophüls.

The Philadelphia Medical Journal, July 7, 1900.

Total Excision of the Scapula. By Dr. J. J. Buchanan.

A Case of Primary Adeno-carcinoma of the Gall Bladder, with Secondaries in both Adrenals, Melanosis of the Skin (Addison's Disease), Vitiligo, and Hypertrophy of the Pancreas. By Dr. Aldred Scott Warthin.

The Action of Rennin upon Milk Digestion. By I. H. Coriat.

A Case of Myoma of the Bladder. By Dr. Otto G. Ramsay.

Boston Medical and Surgical Journal, July 5, 1900.

Remarks on the Surgery of the Uterine Fibroids, with Especial Reference to the Importance of Early Removal in the Young. By Dr. Maurice H. Richardson.

The Use of the Angiotribe. By Dr. F. H. Davenport.

A Case of Morbid Fear. By Dr. J. W. Courtney.

Colostomy for Obstruction due to Malignant Disease. By Dr. J. B. Blake.

The Lancet, June 23, 1900.

The Degeneration of the Neurone. By Dr. F. W. Mott.—(See abstract of the *British Medical Journal* for June 23, 1900, in the *New York Medical Journal* for July 7, 1900.)

Differentiation in Diabetes. By Dr. F. W. Pavy. (A continued article.)—The recognition of the "alimentary" form of diabetes is effected not only by the elimination of sugar being susceptible of control by the exclusion of carbohydrate matter from the food, but also by the absence of the products, diacetic and oxybutyric acids, of tissue breaking down. If the ferric-chloride test for these products gives no reaction, it may be taken that the case is thus far only in the alimentary form. To ascertain the degree of severity of the case, the food test must be employed. This is best done by conjoining with the restricted diet a weighed amount of ordinary wheaten bread, and gradually increasing it until sugar appears in the urine. Loss of weight on the restricted diet with sugar-free urine may be read as meaning that an unnecessary amount of restriction is being practised, and when the starchy food is given, for the disposal of which sufficient assimilative power exists, the weight immediately rises. In many cases the power of assimilation gradually returns, and is often heralded by loss of weight—*i. e.*, more food is needed and can be disposed of by the body. Differentiation between the "alimentary" and "composite" forms of diabetes is often of the greatest importance in life-insurance cases.

Some Notes on the Introduction and Spread of Plague. By G. J. Blackmore.—The writer's experience in Calcutta has shown that during the first year of an epidemic only a few cases of plague occur. These are usually mild, and in a short time the disease apparently disappears. The following year it reappears at about the same time, and again disappears, only to reappear the next year as an epidemic. The whole cycle of the plague in its epidemic form occupies about six or seven months.

Although it is as yet unknown how the sick infect the healthy, yet it is probable that vermin play an active part in transmitting the contagion, and it should be made widely known that the extermination of vermin is an important factor in the prevention of the introduction and spread of plague. Among other conclusions drawn by the writer are: 1. A most careful search should be made for modified cases of plague for some considerable time after the disease has apparently died out in places that have been attacked by it. 2. Vessels and passengers from infected places should be rigidly inspected for months after the epidemic in those places has ceased. 3. Dirty clothes and rags coming from such places should be disinfected. 4. A sharp lookout should be kept for any increased mortality among rats in seaport towns. 5. Extermination of vermin. 6. Early inoculation of the people should be instituted when plague has appeared among rats.

On Chylous Ascites, with an Illustrative Case. By Dr. J. H. Croom.—The writer reports the case of a woman, aged thirty-nine, from whose abdomen three hundred and eighty ounces of chylous fluid were removed by aspiration. The fluid was pale yellow and homogeneous, with a slight creamy layer after standing twenty-four hours. Examination showed this fluid to contain two per cent. of fat. The patient gradually sank, and death took place about three weeks later. The necropsy showed the presence of cancer of the stomach, with one small cancerous nodule in the liver. The small intestine showed the presence of an immense number of cancerous nodules surrounding the lacteals close to the mesenteric attachment. The thoracic duct was free from disease. So that the chylous effusion seemed to be due to an obstruction to the flow of chyle at the junction of the intestinal mesenteric lacteals.

A Plea for Early Operation in Cases of Undoubted Tubercle of the Lung. By J. E. Palmer.—The writer claims that in the treatment of pulmonary tuberculosis, surgery alone offers a really good prospect of success. When any other organ than the lung is attacked, extirpation is the first remedy proposed, which is usually successful. Of course, certain cases are hopeless from the start and others will get well of themselves. But in many cases early recognition and operation afford the only hope of cure. The operation is attended with three chief dangers. 1. Collapse of the lung. Among the methods recommended for its prevention are: (*a*) to sew the pulmonary to the costal pleura beyond the seat of disease before operating; (*b*) to trust to the existence of adhesions already formed; (*c*) to excite artificial adhesions in the pleura; and (*d*) to expand the lung artificially from within. The last appears to offer the best prospect of success. 2. Surgical emphysema. Such a combination of conditions is required for its production that it may be neglected. 3. Hæmorrhage. In most cases this can be obviated by the use of the electric cautery or écraseur.

Acroparæsthesia. By F. H. Edgeworth.—The writer reports three cases of this affection, all occurring in women, aged forty-four, forty-eight, and forty-one years respectively. As in cases reported by other observers, the patients were women between forty and fifty years of age, engaged in earning their living by manual work. The abnormal sensation complained of was a dead, tingling feeling in the hands and arms, occurring at night. Acroparæsthesia is most likely to be confounded with hysteria, peripheral neuritis, erythromelalgia, acrocyanosis, acromegaly, and arterial degeneration. The writer reports two cases of hysteria, one of peripheral neuritis, one of acromegaly, and two of arterial degeneration, in which the symptoms simulated those of acroparæsthesia. The disease is exceedingly persistent and rebellious to treatment. Bromides combined with small doses of nitroglycerin are recommended by the writer.

The Comparative Germicidal Action of Some Disinfectants. By A. H. Burgess.—The writer reports the results of certain experimental investigations undertaken to ascertain the relative germ-destroying powers of some of the so-called disinfectants. The following substances were tested as to their action upon the *Bacillus coli communis* under similar conditions: biniodide and perchloride of mercury, chlorinated lime, formic aldehyde, lysol, carbolic acid, izal, medical izal, creolin, Jeyes's sanitary fluid, Walker's I. X. L. disinfectant, Condy's fluid, "sanitas" fluid, and boric acid. Of these substances, biniodide of mercury was found to be by far the most powerful germicide, a 1-to-1,000 solution killing the colon bacilli in one minute, and a 1-to-200,000 solution in one hour. It possesses the further advantage that it does not form inert combinations with albumin. Boric acid was found to possess no germicidal powers whatsoever.

Acute Glossitis Complicating a Case of Typhoid Fever. By Dr. H. C. Thomson.—The writer reports the case of a woman, aged thirty-four years, suffering from typhoid fever, in whom there was observed acute swelling of the tongue during the fifth week of her illness. The swelling was limited to the left half of the tongue, and was not reduced in size on puncture with a grooved needle. The patient died the same day. There were one or two superficial ulcerations on the dorsum of the tongue, and the tissues were reddened, but there was no suppuration present.

Imperforate Hymen and Retained Menstrual Accumulation. By H. H. Borland.—The writer reports the case of a girl, aged thirteen, who when first seen was complaining of diarrhœa, rigors, and abdominal pain. Examination showed the vaginal orifice to be completely occluded by a bulging membrane, and the lower aspect of the abdomen showed a large globular tumor, reaching from the pubes to two inches above the umbilicus. After cleansing the parts, an incision was made in the membrane from behind forward in the median line, permitting the escape of much treaclelike material. A large, sterilized, perforated glass tube, containing boric acid and iodoform, was inserted into the aperture and retained *in situ*. There was no rise of temperature, the retained menses drained away entirely, and the girl left her bed eight days after the operation. She menstruated normally six weeks after the operation.

The Lancet, June 30, 1900.

The Degeneration of the Neurone. By Dr. F. W. Mott.—The second of the Croonian Lectures on this subject. It deals with the effects upon the neurone of injury, of temporary or permanent failure of the blood supply, of hæmorrhage, of altered states of the blood (hyperpyrexia) and lymph, and of certain poisons, such as tetanus, rabies, abrin, ricin, and absinthe. The changes brought about in the nerve cells are carefully described, and the article is accompanied by excellent photomicrographic illustrations.

The Application of Pathology to Surgery. By H. T. Butlin.—The Cavendish Lecture. (See abstract of the *British Medical Journal* for June 30th in this number of the *Journal*.)

The Commoner Neuroses of Childhood, their Pathology and Treatment. By Dr. O. J. Kauffmann.—Under the above title the writer deals with the following disorders: 1. Chorea. His classification is as follows: (*a*) Senile; (*b*) hereditary; (*c*) post-hemiplegic; (*d*) chorea of pregnancy; (*e*) fright; (*f*) hysterical; (*g*) electrical, and (*h*) rheumatic. To these he would add another class—chorea due to gastro-intestinal self-intoxication. 2. Saltatory spasm. This curious disorder is closely allied to chorea. It is rare, the writer having observed only two cases. The gap between these cases and that of chorea is bridged over by certain cases of so-called "hysterical" chorea. 3. Tetany. This should be considered as a symptom rather than a disease. The common causes are catching cold, rickets, acute infectious diseases, overlactation, pregnancy, and extirpation of the thyreoid gland. 4. Night terrors. They arise from the following causes: Primary mental or emotional excitement; pain, etc.; blood states which irritate the nervous centres. In many cases they are due to dietary errors—digestive toxæmias. 5. Nocturnal enuresis. The primary causes are disease of the bladder or urinary passages, irritation of the rectum (worms), excessive secretion of urine, irritability of the spinal centres concerned in micturition, and irritating quality of the urine. This last cause is by far the most common one, and is often due to unsuitable diet.

Differentiation in Diabetes. By Dr. F. W. Pavy.—(A continued article.) So long as diabetes is limited to the "alimentary" form, the only bad effects to be feared are those due to the presence of sugar in the system. There is no liability of fatal coma, etc., and the symptoms yield promptly to restriction of diet. It is the passage of a case from the "alimentary" to the "composite" form which gives a serious aspect to the outlook. Such transformations are more common in the young subject and in individuals with a highly strung nervous organization. In the treatment of this class of cases, the maintenance of the urine in a sugar-free state is of the greatest importance, as otherwise no restoration of the assimilative power is likely to occur. The change from the "alimentary" to the "composite" form is heralded by the presence in the urine of the products of tissue breaking down; oxybutyric and diacetic acids. There is diminution in weight and aggravation of the diabetic symptoms. The diabetic coma to which the patient in this form of diabetes so frequently succumbs, is the result of a true autotoxicosis. But the poison is unknown; neither acetone, diacetic acid, nor oxybutyric acid possesses sufficient toxicity to account for the coma. It has been suggested that the coma is due to β-amido-butyric acid, a precursor of oxybutyric acid. (To be continued.)

The Primary Disorders of Growth. By H. Gilford. —(A continued article. Begun in the *Lancet* for June 9, 1900.) The writer believes that a large group of diseases may be classed together as primary disorders of growth. The most important are: leucæmia and primary anæmia; the muscular dystrophies; the scleroses of the brain and spinal cord; cirrhosis and acute atrophy of the liver, and primary Bright's disease; idiopathic obesity and emaciation; myxœdema and Graves's disease; Addison's disease, acromegaly, and gigantism; scleroderma and ichthyosis, and osteitis deformans and osteomalacia.

All these diseases have certain points in common. The form assumed is one of four kinds: The organ affected shows either (*a*) hypertrophy, (*b*) degenerative hyperplasia, (*c*) hypoplasia, or (*d*) degenerative hypoplasia. All the diseases under consideration are sporadic, idiopathic, progressive, and pernicious. With a few exceptions, they are incurable by drugs. They show peculiar liability to attacks of inflammation. There is close affinity between many of these diseases and the infective granulomata, and they are all closely related to the innocent tumors and to the cancers. There also appears to be some connection between these diseases and congenital excesses and defects. Comparison of the pathology of these growth diseases with normal growth shows that the clinical characters are such as we might expect to find in a primary perversion of growth. They are affected by the changes that influence the rate of normal growth, and are identical with the changes which occur in organs affected with senile decay. They occur at the period of life when the organs they affect are becoming extinct, and further resemble senile conditions in their liability to innocent tumors and cancers. For example, the four primary growth diseases—hypoplasia, hypertrophy, degenerative hyperplasia, and degenerative hypoplasia—are all represented in the skeleton. They form two divisions, of which the one—hypoplasia and hypertrophy—is distinguished by mere defect or excess of normal growth; while the other, comprising the two degenerative diseases, shows the clinical and anatomical features which are characteristic of such diseases. If it affects the hard substance of the skeleton especially, it is called osteitis deformans; if the soft substance, it is called osteomalacia. The two diseases may merge into each other, the differences between them being due to variations of the part affected and not of the affection itself.

A Case of Syphilitic Fibro-spongioid Osteitis. By J. B. Hall.—The writer reports a case of the above-mentioned affection occurring in a boy, aged fourteen. He had had snuffles very badly as an infant, and did not walk until five years of age. There was marked asymmetry of the skull, with distinct bosses on the frontal bone and lower jaw. Both tibiæ were greatly enlarged and elongated in proportion to the rest of the limb, and presented an anterior convex curve in the middle two fourths. In addition, there were irregular bossy swellings on the tibial surfaces. Slight tenderness on pressure. There was also evidence of osteitis in the clavicles and in the right humerus. The case corresponds to the fibro-spongioid form of bone syphilis, as described by Parrot. The marked clumsiness of the lower limbs was the most striking clinical feature of the case.

Remarks on the Value of Urotropin, and its Practical Application as a Urinary Antiseptic.—The writer calls attention to the value of urotropin or aminoform as a urinary antiseptic, as a uric-acid solvent, and as a mild, non-toxic, and therefore harmless diuretic. Its action as a urinary antiseptic is probably attributable to the evolution of free formaldehyde in the urine, which evolution is most complete in an acid urine. The drug can be detected in the urine within half an hour after its administration by the mouth. It is of the greatest value in cystitis with septic urine, as a preliminary to operations upon the bladder, and in rendering aseptic the urine in cases of typhoid fever, which frequently contains large numbers of typhoid bacilli. It should also prove valuable in the treatment of gonorrhœa, gleet, etc. The amount given need not exceed thirty grains a day. In excess the drug may cause distressing diuresis and strangury.

The Excretion of Urinary Water and Urea from the Human Body, with Diminished Kidney Weight. By Dr. J. B. Nash.—The writer reports his observations of the amount of urinary water and urea excreted in three cases where the kidney weight was diminished by removal of one kidney, and reaches the following conclusions: 1. If one kidney is removed, three years subsequently the remaining kidney will excrete more than the average quantity of urine produced by two normal kidneys. 2. This one kidney will excrete to the cubic centimetre of urine in a day the average amount of urea that would be produced by two healthy kidneys. 3 and 4. The loss of one half of one kidney will have no effect upon the amount of urinary water and urea excreted. 5 and 6. If one kidney is removed, the quantity of urinary water and urea excreted by the other during the seven weeks immediately after the operation will be less than the average proportion.

The Use of Mercury in the Treatment of Cardiac Failure due to Arteriosclerosis. By Dr. A. Morison.—The writer considers the employment of mercury in that form of cardiac failure which is so frequently associated with arterio-sclerosis, more particularly when this is coupled with overwork. He reports an illustrative case of cardiac failure due to arterio-sclerosis, in which relief was afforded only by the use of the following diuretic pill: powder of digitalis, powder of squills, blue pill, and extract of hyoscyamus, each one grain. The mercury is looked on as a peripheral dilatant, the digitalis and squills being central stimulants as well as peripheral contractors.

"The Action of the Water of Llangammarch Wells on Uric Acid." By Dr. W. B. Jones.—The writer reports seven additional cases of uric-acid diathesis, which were markedly benefited by the use of Llangammarch water. The first report appeared in the *Lancet* of March 25, 1899. He claims that the beneficial effects of the water are due to its chemical composition and not simply to the increased amount of fluid consumed.

The British Medical Journal, June 30, 1900.

The Application of Pathology to Surgery. By H. T. Butlin.—Pathology has had very little influence upon surgery until the last fifty years. Inventions in surgery have probably been made much in the same manner as general inventions, and have owed more to accident, to observation, to comparison, and to deduction than to pathology. The Hunterian operation for the cure of aneurysm is one of the first examples of the foundation of surgical treatment on pathology. The next great example is the theory of antisepsis and its application by Lister in 1867. But at the present moment the value of pathology to surgery is no longer in question. The applications of pathology which have been made during the last fifteen years have been so numerous and so important that, from an absolute disbelief in the practical value of pathology, we are veering round to an implicit trust in pathological foundation. In the writer's opinion two species of pathological laboratories for research are required: one for research in pure pathology, without reference to its application, and the other for research in applied pathology—the laboratory for inventors. This last must needs be attached to the hospital, to the wards of which its workers should have free access.

Degeneration of the Neurone. By Dr. F. W. Mott. The second of the Croonian Lectures on this subject.

On Lead Encephalopathy, and the Use of Diachylon as an Abortifacient. By Dr. W. B. Ransom.—The writer reports two cases of cerebral disease due to lead poisoning in women who had taken diachylon to procure abortion. In each case the diachylon was taken in the form of pills, such as may easily be obtained at a druggist's by any layman. In both cases there were headache, drowsiness, delusions, and well-marked double optic neuritis; also anæmia and a distinct blue line on the gums. In one case only a single dose of lead was taken (twenty-three grains), which shows that excretion must be very slow. Four other cases of lead poisoning following the use of diachylon as an abortifacient are reported, and inquiries made by the writer among other physicians lead to the conclusion that such cases are all too common. The drug appears to be an uncertain abortifacient, always endangers and often destroys life, or leaves permanent bodily and mental enfeeblement. Something should be done to prevent its indiscriminate sale.

Bristol Medico-chirurgical Journal, June, 1900.

A Retrospect of a Second Series of Fifty Consecutive Intra-abdominal Operations. By James Swain, M. S., F. R. C. S.

Cases of Acute Intestinal Obstruction Treated by Operation. By W. H. Harsant, F. R. C. S.

Abdominal Hysterectomy for Fibroids of the Uterus, with Retroperitoneal Treatment of the Stump, and Notes of Two Cases. By W. C. Swayne, M. D.—The two cases reported were treated by partial hysterectomy, with retroperitoneal treatment of the stump, and in both the same technique was applied. Special points in the technique followed are: First, the formation of long peritoneal flaps, so as to insure the covering of all raw surfaces, and the inclusion of the stumps of the ovarian vessels in the peritonæum by raising folds from the anterior and posterior surfaces of the broad ligament; secondly, the ligature of the uterine arteries in continuity without involving the peritonæum in the ligatures; thirdly, wedge-shaped amputation through the cervix and the closure of the V-shaped flaps by deep continuous catgut sutures; fourthly, the burying of the ovarian stumps within the sutured peritoneal flaps, and the closure of the abdominal wound without drainage, which, if considered necessary, should be made by incising the vaginal vault outside the peritonæum and the use of a gauze drain into the vagina.

Two Cases of the Sporadic Form of Epidemic Cerebro-spinal Meningitis. By J. Michell Clarke, M. D.

Swedish Medical Gymnastics in Chronic Diseases of the Heart. By E. Christofferson.—*Muscle kneading* is practised to squeeze the blood from the muscles and intra-muscular veins toward the heart. *Abdominal kneading*, even in the absence of digestive disorders, furthers the circulation, especially in valvular diseases with venous congestion of digestive organs, also of mechanical excitation of the splanchnic nerves. *Rollings* of the ankle, hip, shoulder, and wrist joints, consisting of combined movements of extension, abduction, flexion, and adduction, cause a lengthening and shortening of the veins near the joints, thus furthering circulation by suction. *Passive exercises for deepening respiration* are used. "*Local heart treatment*" consists of light strokings over the heart and of a light "tremble shaking," performed with one of the operator's hands placed over the heart of the patient. It seems to exert a reflex action on the vagus. *Active exercises* on the same plan as the Nauheim exercises, except those in which the arms are carried above the level of the shoulders, are also used.

The time given to the treatment, as well as the strength and number of active exercises, differs according to the case treated and the condition of the patient. Passive exercises are given in all forms of heart disease treated by gymnastics—that is, in cases of valvular affections, cardiosclerosis, and chronic myocarditis, fatty infiltration, idiopathic hypertrophy, and dilatation of the heart ("weakened heart"). Also in some heart neuroses (nervous palpitation, morbus Basedowi, and others) the gymnastic treatment has shown itself valuable.

The active exercises are especially used in cases of fatty infiltration, some heart neuroses, and in valvular lesions with fairly good compensation. They *may* in other cases, according to what has been said above, subsequently be added to the passive exercises. As a rule, they are not given in cases associated with aneurysma aortæ or advanced arteriosclerosis.

Note on a Pre-exanthematous Sign of Measles. By P. Watson Williams, M. D.—The author's experience leads him to conclude that while measles may exist without Koplik's spots, "when Koplik's spots are present they invariably indicate the existence of morbilli."

La Presse médicale, June 27, 1900.

Cerebellar Abscess.—M. Dieulafoy reports the case of a man of twenty-three years of age who had had a chronic otitis media. He entered the hospital with fever, headache, vertigo, nystagmus, staggering gait, and vomiting. A diagnosis of cerebellar abscess was made but the abscess cavity could not be reached by operative means which were attempted. At the autopsy, the source of the abscess was clearly discolored. The pneumococcus alone was found in the pus. The author concludes that these abscesses are usually secondary to otitic inflammations, and present the "cerebellar syndrome": occipital headache, vertigo, unstable attitude, staggering gait, vomiting, nystagmus, cervical contracture, optic atrophy, somnolence, facial paresis and paresis of the oculo-motor nerve. This is the complete syndrome, but some of the symptoms may be lacking. A differential diagnosis between this condition and syphilis, tumors and abscesses in other brain areas, must be made. Surgical intervention at a selected time is the only treatment.

Tuberculosis among Parisian Police. By M. Landouzy.

Gazette hebdomadaire de médecine et de chirurgie, June 24, 1900.

Hæmatomyelitis.—M. Jean Lépine says the diagnosis rests between hæmatorrhachis, which is very rare; Pott's disease and gummata of the cord, which do not begin suddenly; hysteria, which can usually be differentiated and in which the sphincters are not likely to be involved; and syringomyelia, which can usually be excluded by a minute examination. There is no treatment which is curative and the prognosis is bad at first. Later, urinary troubles and renal infection render the prognosis doubtful as to function, but good as to life. Recovery is very rare.

Gazette hebdomadaire de médecine et de chirurgie, June 28, 1900.

Omental Knot in Inguinal Hernia.—M. Chavannaz reports the case of a young man who had had a hydrocele of the cord. He suddenly noticed an enlargement of the testicular swelling, but there were no pain, tenderness, and vomiting. The usual signs of a hernia were present and at the time of operation a perfect knot of omentum was found in the hernial sac.

Lyon médical, June 24, 1900.

Albuminuria with Habitual Death of the Fœtus.—M. Fabre reports two cases in which the mothers had previously given birth to dead children and had suffered from albuminuria. In these instances he had induced labor in later pregnancies when the albuminuria had existed for a few days only and succeeded in obtaining living children. He considers this intervention to have been undertaken for both mother and child. (To be continued.)

Diagnosis of the Variety of Pneumothorax. By M. Niclot.

Berliner klinische Wochenschrift, May 28, 1900.

Insane Criminals.—Dr. E. Siemerling writes a critical essay on this topic, urging the recognition of insanity by the courts in criminal cases.

Congenital Absence of Nerve Nuclei.—Dr. O. Heubner describes the case of a child, eighteen months of age, whose faculties in speaking, walking, and standing were abnormally undeveloped. The abducens muscles of both eyes were not under good control and there was complete left facial paralysis. There was an absence of lacrymal secretion and paralysis, and atrophy of the left half of the tongue. The affected areas did not respond to the faradaic or galvanic current. There were no paralyses of the extremities nor any sensory disturbances. The condition is congenital and is due to lack of development of certain nerve nuclei, a partial aplasia.

Experimental Irritation of the Spinal Cord of Decapitated Persons. By Dr. A. Hoche.

Treatment of Gonorrhœa. — Dr. Leopold Casper thinks no absolute specific has yet been found for a blennorrhagic urethritis. Complicated cases are apt to leave serious sequels, and the complications are often due to careless methods of treatment. Casper does not believe abortion of the disease possible. The author believes that one-per-cent. solutions of thallinum sulphate injected from six to eight times daily is the nearest approach to specific treatment that has been reached. In mild cases, with little or no irritation, antiseptic treatment with silver salts is the best. The nitrate is the best silver salt for this purpose, but the author admits that protargol is less irritating. Casper finally draws attention to the harmlessness of "threads" in the urine which consist of epithelium and leucocytes without gonococci.

Influenza and Chronic Heart Disease. (Conclusion.) By Dr. Schott.

Berliner klinische Wochenschrift, June 18, 1900.

Relation of the Medulla to the Nervous System. By Dr. Ludwig Bruns.—(Continued article.)

Early Diagnosis of Pulmonary Tuberculosis.—Dr. H. Strauss speaks of the percutory and auscultatory signs of early phthisis and emphasizes the localization of pathological changes in the lungs. He offers no new methods, but urges the employment of every means of reaching a conclusion, including a minute and careful history of the patient and the use of all known diagnostic methods.

White and Dark Meat in Chronic Kidney Disease.—Dr. A. Pabst, writing as a result of some control experiments he has made, says that patients with chronic nephritis seem to thrive best on a mixed meat diet, neither the white nor the dark meat of fowls appearing to be injurious.

Prognosis of Glycosuria Diabetes. By Dr. Felix Hirschfeld.—(Continued article.)

Experimental Study on Gastric Infection.—Dr. R. Schütz introduced pure cultures of bacteria into the stomachs of dogs. The bacteria died in the intestines, the action of gastric juices not having been interfered with by the experimenter. The action of calomel did not seem to interfere with the activity of bacteria introduced directly into the intestines, although castor oil influenced them to some extent. The author draws the conclusion that disinfection of the intestinal canal, especially with calomel, can not be accomplished.

Die medicinische Woche, June 25, 1900.

Retention of Urine. (Conclusion.) — Dr. Blanck gives a complete account of the various causes of retention. Catheterization is to be undertaken only when the necessity of the case, aside from temporary retention, demands it. It is to be done gradually; the bladder must not be completely emptied at once. After about twelve ounces have been withdrawn, one half that quantity of boric acid is introduced; the remainder of the urine is similarly withdrawn. No attempt must be made when signs of hæmorrhage or shock appear.

American Experience with Nosophene and Antinosine. By Dr. Ritterband.

Deutsche Medizinal-Zeitung, June 21, 1900.

Treatment of Arteriosclerosis with Mud Baths.—Dr. Arthur Loebel reports good results from this method of procedure at Dorna.

Wiener klinische Rundschau, June 24, 1900.

Splanchnoptosis.—Dr. Friedrich Kraus writes an interesting essay on displacement of the abdominal organs, going into the physics of the conditions particularly. (To be continued.)

Tonus and Innervation of the Sphincter Ani.—Dr. Frauhl-Hochwart and Dr. Frohlich conclude that the elastic closure of the anus is not sufficient to retain liquid fæces, but that this must be reenforced, as it is, by a muscular structure under the control of the will. They believe that the inferior mesenteric ganglion aids the spinal centre in imparting tone to the sphincter muscle.

Honthin, an Intestinal Astringent.—Dr. F. Kölbl says that honthin is a drug containing a high percentage of tannin, which is more soluble in gastric juice than tannalbin. It is a powder, insoluble in water, but soluble in alcohol and in alkalies. A hundred and fifty grains may be given for diarrhœa in the course of a day. The usual dose for adults is fifteen grains from three to five times daily. The author says his results in diarrhœas of all kinds have been very satisfactory.

Riforma medica, June 7 and 8, 1900.

An Attempt at Poisoning with Sulphuric Acid. By Dr. Vitigo Tirelli.—The writer relates a case that occurred in the insane asylum to which he is attached. One of the inmates, a woman, aged forty-seven years, received the visit of her husband one Sunday in the reception room of the institution. During this interview, which lasted but a few minutes, and which was witnessed by a number of persons, nothing unusual was noticed. Suddenly the woman fell to the floor, seized with violent pain. Her husband left her as soon as the attendants came, apparently without caring what would become of her. When brought to the ward she began to show all the symptoms of an acute poisoning with a caustic substance. As soon as she was able to speak she said that her husband had given her something to drink out of a small phial, and that she was seized with the pain immediately afterward. She recovered with a cicatricial stenosis of the œsophagus. At the trial it was found that the husband had attempted to poison her in order to marry another woman.

Riforma medica, June 10 and 11, 1900.

Hemicrania in Epileptics. By Dr. R. Labranzi.

Riforma medica, June 12, 13, and 14, 1900.

Experimental Researches Concerning the Physiology and Pathology of the Cerebellum. By Dr. E. Crisafulli.

Riforma medica, June 16 and 18, 1900.

Multiple Myelosarcoma of the Bones. By Dr. O. d'Allocco.—The writer reports a case of Kahler's disease or multiple myelosarcoma of the bones. The patient was seventy-five years old. On admission he complained of acute pain in the sternal region and in the left hip. In the middle of the sternum there was a tumor measuring eleven by seven centimetres and three centimetres in thickness. The tumor merged imperceptibly into the subjacent bone; the overlying skin was marked by enlarged veins. The whole tumor pulsated with an expansile pulsation synchronous with the heart. It was hard but elastic to the touch, and not sensitive to pressure. The tumor grew gradually larger, and the patient became more and more cachectic. Spontaneous fractures occurred in various parts of the body—*e. g.*, at the upper portions of both humeri, at the anterior portion of the iliac crest, etc. The thoracic skeleton became soft and flexible, not rigid, as usually at this age, and spontaneous fractures of the ribs occurred. The patient complained of pains in all his limbs and lay perfectly motionless on his back. Finally, broncho-pneumonia set in, and he died two months after admission. The autopsy showed that the sternal tumor was a medullary sarcoma and that the same growths were present in the bones at the sites of fracture.

Gazzetta medica lombardi, June 10, 1900.

Bacteriotherapy in Inoperable Malignant Tumors. By Dr. Filippo Scuderi.—The writer reviews the experience of recent observers with erysipelas toxine in the treatment of inoperable malignant growths. He collected statistics concerning 115 cases so treated. Of these, 62 were sarcomas and 53 carcinomas. Of the 62 sarcomas, 11 were completely cured (Kleeblatt, 1; Mynter, 1; Coley, 9); in other words, 17.74 per cent. Twenty-eight cases were considerably improved (Spronk, 8; Friedrich, 1; Coley, 19), or 45.16 per cent. The other 23 cases showed a temporary improvement, or failed to respond to the toxine. Of the 53 carcinomas, 22, or 41.5 per cent., showed some temporary improvement and the rest (31 cases) gave completely negative results.

In conclusion, the writer says that the benefits of erysipelas toxine are now sufficiently well demonstrated to warrant its use whenever indicated. The percentage of cures (17.74 per cent.) in sarcomas is certainly encouraging. Coley's work in this country receives prominent mention in this article.

Gazzetta degli ospedali e delle cliniche, June 21, 1900.

Experiments Concerning Tuberculous Toxæmia. By Professor E. Maragliano, of Genoa.—The writer concludes his notes on these experiments as follows: They show (*a*) that in tuberculous subjects with the phenomena of toxæmia the fresh blood, the glycerin extract of the blood, and the precipitate obtained from the urine have a toxic effect on both healthy and tuberculous animals. (*b*) That this toxic action varies in the same way as the well-known effects of tuberculous poison. (*c*) That this toxic action can be neutralized by tuberculosis antitoxine.

Arteriosclerosis of the Myocardium due to Hereditary Syphilis. By Dr. Guido Berghinz.

Immediate Suture in Suprapubic Cystotomy. By Dr. Rocco Cominiti.—The writer reports a case in which cystorrhaphy was performed immediately after the operation. He discusses the advantages of immediate suture and emphasizes the fact that it is the ideal procedure in cystotomy.

Fracture of the Olecranon. By Dr. Roberto Gibertini.

The Modern Treatment of Fractures of the Leg. By Dr. Luigi Tavecchi.—The author speaks favorably of the results obtained in the treatment of fractures of the leg by massage, passive and active motions, and hot sand baths, without any apparatus of fixation.

American Journal of the Medical Sciences, July, 1900.

Carbolic Gangrene. By Dr. Francis B. Harrington.—Much as has been published concerning the danger of gangrene as the result of long-continued applications of weak solutions of carbolic acid, it is doubtful if the profession at large realizes the risk, and of course the general public does not. The use of such solutions has become a routine domestic practice, and we quite agree with Dr. Harrington that carbolic acid in any strength should not be procurable save on prescription and should always be labeled "dangerous." His article is remarkable for the beauty of its colored illustrations of the gross and microscopical appearances of carbolic-acid gangrene of the finger in a case observed in the out-patient department of the Massachusetts General Hospital.

Report of the Committee of the American Surgical Association on the Medico-legal Relations of the X Rays.—This report serves as the text for an editorial article in this issue (see page 68).

Report of a Case of Acute Ascending Paralysis showing Hæmatoporphyrinuria. By Dr. Charles G. Stockton.

A Case of Brown-Séquard Paralysis. By Dr. Richard F. Woods.

Excision of the Lacrymal Sac and Gland followed by an Unusual Variety of Neuroparalytic Keratitis, etc. By Dr. C. A. Veasey.

Clinical Study of the Ocular Symptoms found in So-called Posterior Spinal Sclerosis. By Dr. Charles A. Oliver.

Notes on Diabetes. By Dr. James B. Herrick.—Dr. Herrick remarks that the fact that some life insurance companies require the examiner to test for sugar only when the specific gravity of the urine is above 1.020, or perhaps above 1.015, shows that the occasional occurrence of saccharine urine of low specific gravity is not so generally recognized as it should be. In a case observed by himself the specific gravity was only 1.012, and he thinks this was owing to nephritis. The drinking of large amounts of water, he remarks, may lower the specific gravity decidedly.

Pneumonic Complications in Pulmonary Phthisis. By Dr. W. Ophüls.

A Case of Dermoid Cyst of the Mediastinum, with Remarks upon the Ætiology and Embryology and a Survey of Recent Cases. By Dr. F. S. Mandlebaum.

A Critical Summary of the Literature on the Serum Diagnosis of Tuberculosis. By Dr. David L. Edsall.

Scottish Medical and Surgical Journal, June, 1900.

Acute Intestinal Obstruction. Clinical Lectures. By Charles W. Cathcart, F. R. C. S.—The author remarks upon the lessons derivable by the surgeon from the practice of military commanders, and emphasizes the importance of "scouting" in surgery. The present lectures apply this principle to intestinal obstruction, of which the author details four cases from the Royal Infirmary of Edinburgh. On these he comments as follows:

The value of a careful consideration of the history was shown in several of the cases. Thus it led us to conclude correctly in the first case that some old-standing tuberculosis was present in the abdominal cavity, and that a partial obstruction had been made complete by errors of diet. In the last case it prepared us for finding a tumor of the bowel which might be suitable for excision. The want of a correct knowledge of previous drinking to excess was a disadvantage in the second case, and might have been more serious than it was. If anything could have saved that patient after purgatives failed, it would have been an emptying of the bowel by laparotomy, and a knowledge of previous drinking would have made us realize the early need of that step more than we did. In the fourth case the history of illness dating from childbirth was more important than we took it to be. The symptoms complained of did not point specially to pelvic mischief, but they probably arose from it.

One of the best-known symptoms of acute obstruction is persistent vomiting. The little boy, Case I, had a history of that, but did not show the symptom after his admission. In Case 3, although there was complete obstruction, the history was one of only occasional vomiting. In the fifth case vomiting had not occurred, but this is not surprising when the great intestine was the part involved. We may state generally that the higher in the intestine the obstruction the more rapid the onset of vomiting, and *vice versa.* Why the child ceased to vomit after his admission, and why there was only a comparatively small amount of vomiting described in the third case, we need not stop to discuss. At present it is sufficient to note the point in each case, as it might have been misleading if taken by itself.

A symptom of considerable importance is the outline of coils of distended bowel showing themselves on the surface of the abdomen. It was present in the first, third, and fourth cases. By Professor Wyllie and Mr. Treves it is looked upon as very rare in acute cases, and if present in them at all as indicating that an acute or complete obstruction has supervened upon a chronic or partial one. It was this symptom, among other indications, that led me to take such a view of Case 1, but Case 3 showed the symptom also, and was an instance of obstruction becoming acute or complete at once. We only saw the patient in the later stages of his illness, but it is worth remembering that the symptom was undoubtedly present then. As an exception proves the rule in the sense of testing it, I shall in future be on the lookout for finding prominent coils present in obstruction acute from the first.

The pain in these cases varied considerably. Where the bowel was not injured by pressure, as in Case 1 and Case 4, when admitted, the pain seemed only that caused by the spasmodic efforts of the bowel to overcome the obstruction; where the bowel was injured by constriction, and where peritonitis was also present (Case 3), the pain was constant, with aggravations when the spasms came on.

A careful study of the character of the abdominal distention and its relation to the percussion note may show us that the bowel is distended with fluid. Taken along with symptoms of obstruction, this may guide us to the obstructed point—for the bowel seems to be most loaded just above the obstruction—as in Cases 1 and 3; or when there is a general distention of the bowel with a dull note, and no free fluid in the peritonæum, as in Case 2, we shall be able to grasp the importance of early evacuation of the bowel by purgatives, or, failing that, by operation.

You will perhaps have noticed that it was mentioned in the account of Case 3 that no vaginal or rectal examination was made. This, unfortunately, is one of the instances where we learn the importance of a step by finding out the disadvantage of not employing it. It did not seem worth while to make the examination. A clinic was going on when I was asked to see the patient; her symptoms did not seem to point to the pelvis, but to the abdomen as the seat of mischief, and yet the trouble really was in the pelvis all the time. Had a pelvic examination been made our view of the condition would have been different, and possibly an earlier operation might have been undertaken than the symptoms of obstruction seemed to warrant. All that seems very obvious now, but the lesson it teaches us, of taking nothing for granted which can be investigated, is a very difficult one to master. "Verify your references."

The only point in connection with treatment that I intend to discuss now is the emptying of the bowel above the obstruction. The object of this procedure usually is to get rid of gas and fermenting fluids, and this is most important. Lying in the intestine, these accumulations are not only apt to poison the system by absorption into the blood, but may give rise to peritonitis by transudation through the intestinal walls. In Case 1, however, an unexpected advantage resulted. There were lumps among the contents of the small intestine which would have blocked the narrowed bowel again, although the calibre of the narrowed part was still large enough for the purposes of digestion of wholesome food. The subsequent progress of that case showed this. Later on, when the boy was delirious and apparently becoming dangerously ill again, I gave him calomel, and from the time that he had a free action of the bowels, his convalescence began.

We may sum up what has been said on the subject of acute intestinal obstruction in two short sentences—"Knowledge is power"; "When in doubt, operate."

Vaporization (Atmokausis) of the Endometrium. By Professor A. R. Simpson, M. D.—Professor Simpson briefly details the rise and progress of this treatment from its beginning at the hands of Professor Sneguireff, as reported by Dr. Neugebauer in the *Centralblatt für Gynäkologie* for January 19, 1895. Sneguireff's apparatus consists of a kettle for generating the steam and a double catheter for conveying the hot vapor into and out of the uterine cavity. The central tube carries in the steam, which applies itself to the endometrium and escapes through the outer tube, that has a series of fenestrations in its intra-uterine cavity. From records of fourteen cases of more or less pronounced menorrhagia or metrorrhagia in women varying in age from thirty to forty-five in the Royal Infirmary, Edinburgh, the author finds that eleven were cured and the rest improved. The vaporization was carried out for periods varying from forty-five to ninety seconds. In only one case was any pain noted. The author's experience leads him to suspect improper application where misadventure has occurred. Covering of the intra-uterine catheters with celluvert or India-rubber tubing obviates danger of stenosis. He doubts the value of the claims for germicidal powers. The condition of the uterine walls is important, firm walls with good contractile power giving the most satisfactory results. General anæsthesia and two or three weeks' rest in bed have been employed by the author.

Clinical Note on a Case of Vulvar Hæmatoma. By J. W. Ballantyne, M. D.

Heredity in Disease. By G. Archdall Reid, M. B.—The author combats the idea that acquired characters can be transmitted, inasmuch as such characters can affect only the somatic cells and not the germ cells, on which latter alone the characters transmitted in generation depend. Inborn characters in the individual are the result of the constitution of the germ cells from which he sprang. This is "variation." Acquired characters in the individual are the consequence of the action of his environment on his soma. This constitutes modification. "Galton's theory rests on the plain facts that each individual is derived solely from a simple cell, the germ; and that there is no evidence that the somatic cells influence the germs in such a special and unlikely manner as to cause the *particular* characters the parent acquired to be reproduced by the children." The author points out that the blacksmith's developed arm does not result in a similar development of his child's arm—a like stimulation by use would be required in the child to effect that result. In the same way the brain, heart, and lungs all develop. Every man's physical acquirements during life are vast, and are the result of use modified by environment. But they are not transmitted. The same is the case in mind. If it is objected that exercise and use increase not only the individual's acquirements, but his capacity for making further acquirements, and that this capacity can be transmitted, the author replies that the power of acquisition is greatest in infancy and declines toward old age. What changes take place in the individual during the period of potential parenthood? Under the stress and tear of circumstances the body becomes vigorous, then feeble; the mind grows mature, then senile. The individual parent becomes wrinkled and bowed; perhaps very wise, perhaps much the reverse. "Yet no one viewing a baby show, a children's party, or an assembly of adults, of whom he has no previous knowledge, can say which is the child of the youthful and which of aged parents. Apparently, therefore, the whole of the parent's acquirements have no effect on the child." The gouty diathesis may be transferred, but gout must be developed by the individual through his environment. Mutilations are sometimes instanced as examples of transmitted acquirements. Yet how many children of parents who have undergone some amputation or other operation are thereby affected? "It is forgotten that though every mother loses her hymen and nearly every terrier his tail, yet congenital absence of hymen and tail is still so rare as to be regarded with extreme suspicion." The effects of disease are commonly confounded with diathesis. A tuberculous parent may transmit a tuberculous diathesis, *i. e.*, a weakened capacity to resist the tubercle bacillus; but in child as in parent actual infection must take place before tuberculosis develops. "If, as is alleged by most medical men, the effects of disease are transmissible, then these effects must accumulate generation after generation. The son must start with the parent's constitution plus the effects of the son's (his?) disease, and so on. It is plain on this hypothesis, that a race afflicted by any disease should undergo evolution or degeneration—evolution if the disease tends to strengthen the individual against subsequent attacks, as by conferring immunity; degeneration if it tends to weaken him." If the effects are *not* transmissible, then a race afflicted by a deadly disease would become gradually immune thereto by the weeding out of those incapable of resisting its attacks. "It is most significant," says the author, "that every race is resistant to every deadly disease strictly in proportion to its past experience of it. Neglecting temporary fluctuations, generally of minor importance, caused by changes in fashions or morals, or in the price of alcohol, etc., every race that has access to abundant supplies of alcohol is temperate strictly in proportion to its past experience of the poison. There has, in fact, been no transmission of an acquirement, but merely a great survival of the fittest. The Jews and the inhabitants of the wine countries generally, who have been afflicted by alcohol for thousands of years, are the most temperate peoples on earth. North Europeans, who have had a less abundant supply, and have been less afflicted and for a shorter period, are much more drunken. Savages, who have never been able to manufacture alcohol, are so inclined to drunkenness that in all parts of the world, from pole to pole, when given the opportunity, they drink to extinction and perish. They are as little capable of persistence in the presence of strong modern solutions of alcohol as they are of persistence in towns in the presence of tuberculosis. It is the fashion to attribute national insobriety to all sorts of causes. To climate; but savages in all climates are drunken, whereas Jews are sober. To strength of beverages; but Wellington's English were drunken in the Peninsular War when the native soldiers were sober; savages, if they have the opportunity, get drunk on the lightest beverages; the sober races of the present time—Jews, Greeks, South Germans and Frenchmen, Italians, Spaniards, and Portuguese—were anciently drunken when their wines were no stronger. To civilization; but North Europeans are more civilized but more drunken than South Europeans; West Africans, savages of a very low type who have long manufactured palm wine, are conspicuously more temperate than other savages. Parental or ancestral drunkenness; but savages whose parents and ancestors never had any drink are the most drunken of all. Education; what is there in the education of South Europeans and Jews which renders them so superior in this particular to North Europeans? Temperament; but how did differences in temperament arise, if not through evolution? Advance what other hypothesis one will, and there are numerous exceptions; this theory of alcoholic evolution, which is in accordance with all we know of evolution under natural and artificial conditions, alone covers all instances." Opium has been used for hundreds of years in India, for two centuries in China, and for three or four decades only in Burma. It is rarely taken to excess in India, frequently in China, while in Burma the British government has been obliged to entirely prohibit its use to the natives while permitting it to all other nationalities. The difference between these habits and the tobacco habit is thus considered: "Were acquirements transmissible, races that had longest used tobacco should crave most for it. As a fact, races to which it is newly introduced crave just as much for it as those who have used it longest. On the other hand, like chicken-pox—but unlike tuberculosis, malaria, alcohol, opium—tobacco is not death-dealing. As a consequence it is not a cause of evolution; races which have longest used it crave for it as much as those to which it has been newly introduced." The author sums up as follows: It is highly improbable, from developmental reasons, that acquired characters can be transmitted; no single instance of such transmission has ever yet been proved; no body of men possess evidence on this point so overwhelming as medical men, but the evidence in their hands has generally been neglected or misunderstood; properly used, it supplies matters of the highest importance concerning the natural and political history of man.

Miscellaneous.

The Operative Treatment of Tuberculous Disease of the Hip Joint.—Mr. W. Arbuthnot Lane, F. R. C. S. (*Clinical Journal*, June 20th), in a clinical lecture on this disease, says: "Active surgical measures must be adopted in many cases, and with *two distinct objects in view.*

"1. In most cases the operation is performed with *the object of effecting a removal of tuberculous products*, which should be as complete as possible; and the measures which enable the surgeon to perform this most thoroughly are those that should be adopted, providing always that they have no compensating disadvantages.

"2. In a certain proportion of cases the surgeon interferes solely with *the object of improving the patient purely from a mechanical standpoint*, as regards the possibilities of walking and sitting. In such cases the tuberculous organisms have died and been absorbed, or are encapsuled in a latent condition. Such operations are performed for ankylosis of the hip joint in any position, or for dislocation of the upper extremity of the bone on to the dorsum ilii.

"3. In a larger proportion than the last an operation is undertaken *with both objects in view*—namely, the most complete possible eradication of the disease, and the most efficient possible restoration of the mechanics of the limb.

"How best to effect the complete removal of tuberculous material at a minimum risk to life, and with the least damage to the mechanics of the patient, is a very important problem, and the procedures adopted vary widely with the skill, intelligence, and experience of the surgeon.

"I have tried the various methods that have been recommended, but have come to the conclusion that I can effect the most complete clearance of the joint through a transverse incision extending backward along the upper margin of the trochanter from the anterior inferior spinous process of the ilium. It is true that several large muscles are cut through in this way, and that often there is more loss of blood unless the surgeon is prompt in the use of his forceps, when there should be exceedingly little, since the wound is an open one, and bleeding points can be secured at once. The advantages which this method offers are:

"1. By means of it the joint and the parts about it can be thoroughly exposed.

"2. If there is any dorsal displacement the seats of disease in the femur and ilium can be got at readily.

"3. If it seems advisable to make a new joint beneath the anterior inferior spinous process in front of the transverse axis of pelvic rotation in the manner I have advocated, and which affords the patient enormous mechanical advantages, the head of the bone or the stump of the shaft or neck can be readily placed in position, and, if necessary, fixed there by a silver wire to the ilium through this incision.

"The principle on which this operative procedure is based was first published in the *Medico-chirurgical Transactions*, 1888, in a paper entitled An Undescribed Method by which the Superjacent Weight of the Body is transmitted in Fracture of the Neck of the Femur, and the Bearing of the Principle involved on the Surgery of the Hip Joint; and was amplified fully in a paper in the *Clinical Journal*, October 20, 1897."

Two figures were produced which showed a child, six years old, who had been operated on in 1897 for extensive disease of both hip joints, with several abscesses, which had burst on either side. The disease started when the child was three years and a half old. When operated on, the thighs included an angle of fifty degrees with the trunk, and the knees crossed. The dislocated upper end of the femur was on either side ankylosed by fibrous tissue to the ilium. A new joint was made beneath the anterior inferior spinous process in the usual manner on both sides. Caseous foci were present.

Two other figures represented the condition following the formation of such a new joint, on one side only, in a child aged four years and a half, operated on in 1897. The disease had completely subsided, and the operation was undertaken only with a mechanical object.

"The whole diseased area," says Mr. Lane, "can then be thoroughly packed after the removal of the tuberculous material, either for one or more days, with iodoform gauze to secure a nice dry surface free of organisms, when the edges of the muscles and skin can be accurately brought together. If it has been necessary to use sulphur because of the presence of other organisms, or of considerable pocketing along muscle planes, the necessary subsequent packing can be carried out more effectually through this incision than in any other way I know.

"Objection may be taken that a second or even a third anæsthetic may be required in the procedure I adopt, but that would apply equally to any form of operation in which the surgeon decides on packing the part, and so obtaining a thoroughly dry wound with a much more complete removal of the disease than could be effected by simply scraping, flushing, etc., at one sitting. Besides, it diminishes the risk of septic infection very greatly, and in consequence usually telescopes the duration of the convalescence considerably.

"Although the muscles above the joint are freely divided, the important anterior portion of the capsule escapes injury; and in early cases of disease of the joint, with perhaps little or no affection of the bones, this is subsequently of vital importance to the mechanics of the patient.

"I will not venture to criticise other methods of operating, but simply insist that if it is decided to operate at all it is most important that the tuberculous material should be removed in the most thorough manner possible. To make a hole into the capsule, to scrape about in the dark, however freely, and to irrigate as profusely as you wish, will not effectually clear such a cavity as the hip joint of disease. It may be argued that in many cases such a partial clearance is sufficient, but to me it appears muddling, uncertain, wanting in thoroughness, and unscientific."

Dangers of Plugging the Nasal Fossæ.—M. Guisez (*Gazette des hôpitaux*, January 30th; *Medical Review*, May) says that the use of Bellocq's sound is difficult in nervous persons and children, and often brings about undesirable results. 1. A man, aged twenty-two, who had suffered at intervals since fifteen from repeated hæmorrhages from the gums and nose, had in January, 1898, severe epistaxis from the right nostril. Anterior and posterior plugging were performed and renewed in three days. Three or four days after the second plugging there was great œdema of the right eyelid with great swelling and pain in the right side of the face. The temperature was 102.2° F. An empyema of the antrum had occurred. 2. A woman of alcoholic tendencies suffered from epistaxis. Double plugging was applied. Two days afterward severe pain occurred, due to slight otitis, no doubt caused by the plugging. The nasal mucous membrane, he says, owing to its numerous folds and recesses, is difficult to sterilize, and the presence of septic clots is exceedingly prone to set up suppurative otitis and empyema of the maxilla. Anterior plugging only should be employed, and if necessary the thermocautery should be applied to the bleeding vessel, which is usually a terminal branch of the spheno-palatine artery.

Symphysiotomy without Immobilizing Measures.—M. Fieux (*Gazette hebdomadaire de médecine et de chirurgie*, April 26th) recently presented to the *Société d'obstétrique et de gynécologie de Bordeaux* a second patient on whom symphysiotomy had been performed without subsequent immobilizing measures, with a perfectly satisfactory result. The operation was performed in six minutes. Tarnier's forceps was used. The interpubic dilatation was seven centimetres (about two inches and three quarters). The accouchement was terminated in three hours and a half. After the tenth day the patient was able to turn herself and sit up in bed. On the sixteenth day she got up and walked, no pelvic trouble existing.

Cyanosis Neonatorum.—Dr. John A. Hale (*Stylus*, May) arrives at the following conclusions: 1. The frequency with which women who suffer from pyosalpinx, violent endometritis, or kindred troubles lose succeeding children, points to an interference in placental circulation as a causative factor in morbus cæruleus. 2. The intervening time between birth and the first attack may be accounted for by the temporary clearing or burning out of the foreign matter by oxygenation of the blood. 3. The *first* marked symptom of the approach of this trouble is diminution of renal secretion, with sediment. 4. The importance of establishing "compensation" and not retarding it by the administration of antispasmodics is worthy of thorough consideration. 5. The advisability of the judicious use of minute doses of digitalis is evident from results obtained. 6. The importance of keeping under observation those children who have survived the primary attacks, until after the period of weaning and dentition, is paramount.

Letters to the Editor.

THE BOERS AND THE USAGES OF CIVILIZED WARFARE.

BUFFALO, N. Y., *June 27, 1900.*

To the Editor of the New York Medical Journal:

SIR: A few days ago I received a letter in the Dutch language from Mr. J. M. de Bruyn, the secretary of the Boer envoys, in which letter he states that "the Boers have taken dumdum bullets from the British soldiers in the battle at Magersfontein and in nearly every other battle. The trademark on those dumdum bullets shows that they are made in England, and the Boer government had never ordered dumdum ammunition in England or elsewhere. That those dumdum bullets can not be used for the Mausers is a new proof that they (the Boers) never take such ammunition from home. Did our burghers ever shoot with dumdum bullets, then those bullets and the guns are taken first from the British soldiers.

"Mr. Fischer, the president of the envoys, has a few dumdum bullets with him which had been taken in his presence from an English soldier. Every expert will be convinced immediately that those bullets were made in England, and absolutely unfit for our Mauser guns."

I hope you will make use of this statement, which can be verified, as the envoys are still in the United States; you can even get a statement under oath.

The original Dutch letter which I received is at your disposal.

I inclose a statement from the *Buffalo Express* about the Chicago Red Cross ambulance, which you have so severely criticised. *Tout savoir c'est tout pardonner.* And although I don't say they are faultless, still, knowing all the circumstances, you would perhaps not condemn them too strongly. E. E. BLAAUW, M. D.

⁂ We publish the clipping from the *Buffalo Express* in Miscellany.

CARBONIC-ACID GAS IN THE TREATMENT OF DYSENTERY.

NEW YORK, *July 5, 1900.*

To the Editor of the New York Medical Journal:

SIR: I learn that dysentery is prevailing among our soldiers in the Philippines, and that at present the death-rate from this disease is exceedingly high. All this is not surprising, for dysentery is the principal disease of armies in the field and will be the more fatal the more it is favored by unhealthy climate, hot days, cool nights, and many other circumstances, such as those are by which our troops in the Philippines happen to be surrounded.

A special observation in the treatment of this disease, an experience extending over a space of seventeen years, and a firm conviction that I can offer something of value will justify me in asking *especially the army surgeons* to give me a hearing, and after a fair hearing to give my remedy a fair trial.

My observations date back to the year 1883, and all these seventeen years I have said and written again and again that inflation of the rectum with carbonic-acid gas appeared to me to be the best means in the treatment of dysentery. The first article on this subject appeared in the *Annals of Anatomy and Surgery* for December, 1883. This paper was recapitulated in an article which appeared in the *New York Medical Journal* for December 9, 1895. I spoke of the carbonic-acid-gas treatment at great length in the *Medical News* for October 29 and November 5, 1898, and again in a paper read before the Medical Association of the Greater City of New York on November 13, 1899. This paper was published in the *New York Medical Journal* for January 6 and 13, 1900. On the occasion of the discussion of this paper before the society named, I had the great satisfaction to learn that Dr. R. E. Van Gieson, of Brooklyn, had, like myself, obtained excellent results in the treatment of dysentery by means of carbonic-acid-gas inflation of the rectum.

Dysentery itself, or at least at the outset, is a local disease confined to the mucous membrane of the rectum. Carbonic-acid gas has the most remarkable healing effect on diseased mucous surfaces in general, and on the inflamed ulcerated mucous surface of the rectum in particular. The gas acts at once by anæsthetizing, relieving the tenesmus which characterizes dysentery, and stimulates the circulation, thereby relieving inflammation and healing ulcerations. By means of this topical application we often may dispense with the roundabout way of administering medicine *per os,* while at the same time this gas inflation is a more effective means than the well-known aqueous or starchy enemata, certainly a more rational one.

When I began this treatment the apparatus used to generate the gas and administer it by the rectum was a rather primitive one, but we now possess an arrangement consisting of a steel capsule containing liquefied carbonic acid, which is emptied, while transforming it into gas again, into an aerostat, whence it can be applied with the greatest facility and its application exactly regulated. It is a contrivance which we can carry in our pockets. It was fully described in the article last mentioned above in the *New York Medical Journal.* I am at a loss to understand how it is that so little attention has been paid by the profession to carbonic-acid-gas treatment in dysentery after my repeated attempts to bring it to notice. I was pained to see that in a text-book on *Diseases of the Intestine,* published in this city only a few weeks ago, carbonic-acid inflation of the rectum in the treatment of dysentery was not even mentioned.

A. Rose, M. D.

Book Notices.

Manuel complet de gynécologie médicale et chirurgicale. Par A. Lutaud, Professeur libre de gynécologie, etc. Nouvelle édition entièrement refondue. Contenant la technique opératoire complète et 607 figures dans le texte. Paris: A. Maloine, 1900. Pp. xxviii–712.

It is curious to note in French and German medical books of the present day the tendency to appropriate as original the ground-breaking work in each department of medical science. We recall that Winckel, for example, in condemning a certain American obstetrical operation, took occasion, nevertheless, to point out its German origin some sixty years previous. The same desire to augment French gynæcological fame, if that were necessary, is shown in the present book, although the author is generous enough to allow Marion Sims and Sir Spencer Wells the prestige of that which is theirs.

In all other respects, Professor Lutaud has written a most acceptable work on gynæcology, entirely modern, essentially scientific, free from padding and from faddism. The anatomical data are correct and not too voluminous, the pathological considerations are full, and, what is not the rule in all special books, are scientifically true. Especially can this statement be applied to his consideration of the inflammations. The chapters on treatment are above criticism. The treatment of extra-uterine gestation, for instance, is given as surgical; there is no haggling, no weighing of other methods by the use of which a woman might recover. The Alexander operation for retroflexion is advocated; but the author reverts to 1836, when Alquié suggested the same operation to the French Academy, and hence he calls the operation the Alquié-Alexander operation. Hysteropexy is condemned as dangerous. The wonderful success of total hysterectomy as a timely operation is detailed, and full credit is given to American and German writers for their share in the recent progress of gynæcology.

The volume forms interesting reading. It can be cordially indorsed as a work which every specialist should read, for he will learn asepsis and conservatism from almost every page. Some of the illustrations are good; others are bad. In the case of the bad ones, we are inclined to attribute their imperfection to the quality of paper used.

The Diseases of Children, Medical and Surgical. By Henry Ashby, M. D. Lond., F. R. C. P., Physician to the General Hospital for Sick Children, Manchester, etc., and G. A. Wright, B. A., M. B. Oxon., F. R. C. S. Eng., Assistant Surgeon to the Manchester Royal Infirmary, etc. Fourth Edition. Edited for American Students by William Perry Northrup, A. M., M. D., Professor of Pædiatrics, the University and Bellevue Hospital Medical College, etc. New York, London, and Bombay: Longmans, Green, & Co., 1900. Pp. xxvi–894.

The fourth edition of this text-book has been materially changed from the previous editions, considerable new matter having been introduced and many articles subjected to revision.

In the early chapters, ten pages have been added to the discussion of infant feeding, in which full recognition is given to the work of American writers. In fact, a knowledge and appreciation of what has been done in pædiatrics on this side of the Atlantic is shown throughout the book. The arrangement of the book has been considerably altered and greatly improved. A separate article upon infantile scurvy has been added. There are a number of new illustrations, chiefly in connection with the surgical part of the work; most of them are x-ray pictures of bone diseases.

The book bears evidence throughout of much original observation which has been carefully recorded and well presented, both in the pictures and in the descriptions of diseases. Especially to be mentioned are the chapters upon scarlet fever, typhoid fever, syphilis, tuberculosis, and lobar pneumonia. These articles are among the best in medical literature.

It is, however, in connection with matters most intimately associated with infancy that the book is weakest.

In the subject of infant feeding, we do not find that strong evidence of personal experience which marks the work elsewhere. The articles on broncho-pneumonia and on the intestinal diseases fall far below the rest of the book.

In the chapter upon the weight of infants a table is given based upon observations in nine cases by Pfeiffer. These are hardly sufficient for deduction. The weight chart given by the authors shows the average gain for the first year, in which it is made to appear that the average child of seven pounds and a half at birth gains only six pounds and a quarter during the first half of the year, while he gains seven and a quarter in the second half. A few personal observations would have convinced the authors of the error in this statement, or a consultation of any one of a dozen recent articles on the subject, all of which have led to an essentially different conclusion.

The article on diphtheria is much below the high standard of those upon the other infectious diseases. The doses of antitoxine recommended would be considered insufficient in America—*i. e.*, 2,000 units for a severe case in a child over two years old. English physicians are extremely fortunate in the strength of their antitoxine, or else the authors have made an error in the statement that "the usual strength of antitoxine now in use is 1,000 units in each c. c."

In view of the fact that tracheotomy is so little employed, the long article of ten pages might have been greatly condensed and more space given to intubation, which is dismissed with only two pages in the text, although this deficiency is made up by an article in the appendix from the American editor.

The chapter upon malarial disease has not been revised since the first edition of the book appeared; and we find in it the briefest possible description of this disease, with no reference whatever to the malarial plasmodium.

At the beginning of the section upon specific fevers, two or three pages are given to a chapter upon "feverishness," a term which is hardly scientific, and might better be dropped.

The criticisms which we have made are not to be understood as detracting in any way from the great merits the book possesses. Of the later English books, it is decidedly the best one, and, since it is so good, we can only be sorry it is not better.

The American editor has not attempted a revision of the book, but simply added a few notes on various topics which will interest its readers on this side of the water.

Surgical Pathology and Therapeutics. By John Collins Warren, M. D., LL. D., Professor of Surgery in Harvard University, etc. Illustrated. Second Edition, with an Appendix containing an Enumeration of the Scientific Aids to Surgical Diagnosis, together with a Series of Sections on Regional Bacteriology. Philadelphia: W. B. Saunders, 1900. Pp. 5 to 873. [Price, $5.]

We can do no better than to quote the preface to the second edition in order to express the changes made and the new matter required to bring the work up to date: "In the second edition the attempt has been made to embody all the important changes in a new appendix, which replaces the old one, and the chapter on aseptic surgery. In this new chapter the author has aimed to present in as practical a manner as possible the resources of surgical pathology. In addition to an enumeration of the scientific aids to surgical diagnosis, there is presented a series of sections on what may be termed regional bacteriology, in which are given a description of not only the flora of the affected part, but also the general principles of treating the affections which they produce, based upon the latest views of the best authorities."

No student of surgery can expect to properly master the surgical field unless he is properly equipped in its pathology. He will find in Dr. Warren's book a most useful and instructive work, one which will render his path comparatively easy.

Lehrbuch der Kinderkrankheiten für Aerzte und Studirende. Von Dr. Adolf Baginsky, a. o. Professor der Kinderheilkunde an der Universität Berlin, etc. Sechste vielfach vermehrte und verbesserte Auflage. Erste Abtheilung. Zweite (Schluss-) Abtheilung. Braunschweig: Friedrich Wreden, 1899. Pp. vii–1109.

The sixth edition of this work does not differ essentially from the fifth, which appeared in 1896. We notice in it a disposition to look somewhat doubtfully upon American contributions to medicine. However, the author does admit the value of Koplik's sign in measles. The work of Baginsky maintains its position as no doubt the best exponent of German pædiatrics which we have.

The Pocket Formulary for the Treatment of Disease in Children. By Ludwig Freyberger, M. D. Vienna, M. R. C. P. Lond., M. R. C. S. Eng., Clinical Assistant, Hospital for Sick Children, Great Ormond Street, etc. London: The Rebman Publishing Company, 1900. Pp. xv–208.

This little handbook consists chiefly of a collection of prescriptions suitable for diseases of children, and is supplemented by a therapeutic index. The book is a relic of days that, fortunately for the treatment of most sick infants, are in the past, as it represents the "shotgun" prescription treatment and full doses of a generation ago. That it will be of much help to students or practitioners of the present day seems doubtful.

BOOKS, ETC., RECEIVED.

Surgical Anatomy. A Treatise on Human Anatomy in its Application to the Practice of Medicine and Surgery. By John B. Deaver, M. D., Surgeon-in-chief to the German Hospital, Philadelphia. In Three Volumes. Illustrated by about Four Hundred Plates, nearly all Drawn for this Work from Original Dissections. Volume II. Neck; Mouth; Pharynx; Larynx; Nose; Orbit; Eyeball; Organ of Hearing; Brain; Male Perinæum; Female Perinæum. Philadelphia: P. Blakiston's Son & Co., 1900. Pp. xii–17 to 709.

Progressive Medicine. A Quarterly Digest of Advances, Discoveries, and Improvements in the Medical and Surgical Sciences. Edited by Hobart Amory Hare, M. D., Professor of Therapeutics and Materia Medica in the Jefferson Medical College of Philadelphia, etc. Assisted by Charles Adama Holder, M. D., Assistant Demonstrator of Therapeutics in the Jefferson Medical College. Volume II. June, 1900. Surgery of the Abdomen, including Hernia—Gynæcology—Diseases of the Blood. Diathetic and Metabolic Diseases. Diseases of the Glandular and Lymphatic System—Ophthalmology. Philadelphia and New York: Lea Brothers & Co., 1900. Pp. vi–2 to 411.

Clinical Studies in Epilepsy. From the Craig Colony at Sonyea, New York. By L. Pierce Clark. I. Exhaustion-paralysis in Epilepsy. II. Paramyoclonus Multiplex associated with Epilepsy. III. Hypertrophic Infantile Cerebral Palsy and Phocomelus associated with Epilepsy. Utica, New York: State Hospitals Press, 1900. Pp. xii–230.

La Médication ergotée (ergot de seigle, ergotine, ergotinine). Étude expérimentale et clinique. Par le Docteur Samuel Bernheim. Paris: A. Maloine, 1900. Pp. xi–196.

Les Albuminuries curables. Par J. Teissier, Professeur à la Faculté de médecine de Lyon, etc. Paris: J.-B. Baillière et fils, 1900. Pp. 96.

Grundriss der orthopädischen Chirurgie. Für praktische Aerzte und Studirende. Von Dr. Max David, Specialarzt für orthopädische Chirurgie, in Berlin, etc. Mit 129 Abbildungen. Berlin: S. Karger, 1900. Pp. 212.

Die Urogenitalmuskulatur des Dammes, mit besonderer Berücksichtigung des Harnblasenverschlusses. Von Dr. Otto Kalischer, in Berlin. Mit 36 farbigen Abbildungen im Text und 33 Tafeln. Berlin: S. Karger, 1900. Pp. xiii–184.

Twenty-sixth Annual Report of the Executive Committee of St. Luke's Hospital, South Bethlehem, Pennsylvania, to the Board of Trustees, at the Annual Meeting held October 18, 1899, together with the Reports of the Treasurer, the Medical Board, the Chaplain, and the Ladies' Aid Society of St. Luke's Hospital.

What Bearing has Higher Professional Education on the Work and Welfare of the Manufacturing Pharmacist? By Joseph Helfman, of Detroit. [Reprinted from the *Philadelphia Medical Journal.*]

Miscellany.

The Conditions of Tuberculous Infection.—Dr. Ed- vard R. Baldwin (*Yale Medical Journal,* March), after iscussing the various avenues of infection, continues: Having reviewed, though incompletely, the possible eans by which the bacillus may be communicated, let e offer some points from the experience of Dr. Tru- eau, at the Adirondack Cottage Sanitarium, and from quiries that I have made as to the danger of con- gion from constant contact with tuberculous patients. he report is decidedly against any great danger being resent where simple precautions are taken. In the hole history of the sanitarium, extending over fifteen ars, there has been no instance of tuberculosis among e employees—waitresses, laundresses, chambermaids, d all others—although many were malnourished and peared to be good subjects to contract it when enter- g the service. An examination of the dust of the rious cottages some years ago by Dr. Hance showed fective power in but one, and that traceable to a dis- edient patient. This speaks well for the efficacy of e simple rules in force there, which oblige the patients use the cheap paper cuspidors and Japanese napkins. different result might be expected, according to popu- ideas, by investigating the cases of tuberculosis origi- ting in Saranac Lake village. The following is the ult of my inquiry, in which each case was looked up h care: During the past fourteen years there were twelve deaths from pulmonary tuberculosis among residents of the town, all of whom developed it there. There are four at present living, making sixteen in all. Nine of them had tuberculous parents, and altogether five were possibly exposed to invalids outside their own families, and two to both parents and invalid guests. During the same period there were fifteen cases recorded as tuberculous meningitis in infants, seven being the offspring of tuberculous parents, resorting to the mountains for health. In only one of the remainder could I trace exposure to infection. Allowing for cases unreported, there were not over twenty cases each of pulmonary and meningeal tuberculosis in an average population of two thousand during fourteen years, actually less than the proportion in most other towns of like size. I am aware that such an inquiry does not include cases that may have received their infection there, and developed the disease elsewhere. At any rate, these results coincide with the experiences of other resorts, such as Colorado Springs; though I would explain the immunity on the theory that the inhabitants, in the main, had more healthful occupations and a more invigorating climate than most towns, rather than that the sunshine, dryness, and altitude were such important factors in destroying the infective bacillus. Quite as important to my mind is the fact that consumptives who seek resorts for health are chiefly the better and more cleanly classes, who also spend most of the time out of doors, where they can do little harm." The author, of course, does not disparage proper measures for the avoidance of infection; on the contrary, he insists on them the more strongly, seeing how effective they can be made. He merely pleads for "greater discrimination and moderation" in public health measures, and education of the public in the personal measures designed to combat it.

The Ancient Belief in the Contagiousness of Phthisis.—Professor William Osler, in a letter to the *British Medical Journal* for June 16th, says: "To the contagionists referred to in the interesting article in the *British Medical Journal* of May 19th should be added Richard Morton, the best seventeenth-century student of phthisis. In the well-known *Phthisiologia* (1689), speaking of the causes, he says (page 70): '*Nonò,* Contagium etiam hunc morbum propagat,' etc.; and (page 264), '*Dominus Luff,* filius *Reverendi Clerici* jàm ante memorati, atque incola plateæ dictæ *Milkstreet,* postquam matrimonium contraxerat cum virgine Phthisicâ (quæ etiàm (si benè memini) vitam intra annum à matrimonio completo finiit, cum colliquatione universali, et reliquis Phthiseos pulmonaris funestæ symptomatis) in Phthisin etiam, ex contagio, uti mihi videbatur, post paucos menses elapsos incidit.'"

The Reward of the Philanthropic Physician.—*Wilkinson's Medical Digest* cites the following from the *Boston Medical and Surgical Journal* of unspecified date: "A physician in this vicinity was recently called to a family which he found in such destitute circumstances that he gave, in addition to his prescription, a five-dollar bill. Happening in the next day, he discovered that his gift had been thus spent: Three dollars to the priest, and two dollars to get another doctor."

The Construction of Privies in Country Districts.—Dr. T. J. Melvin (*Colorado Medical Journal; Dietetic and Hygienic Gazette,* May) says that ashes, either wood or coal, are often used in the place of dry earth, but the handling of them is unpleasant, although they are even more effective than the earth. Ashes are a constant waste product of every house. He was led several years ago to adopt a contrivance whereby they could be utilized for this purpose with little expense or trouble. It has worked so satisfactorily that a number of his friends and patients have duplicated it, and, as it may be built by any mechanic in any community, he would suggest it as a solution to this problem.

First, an ordinary-sized brick vault is built and cemented on the inside. The total depth should not be over four feet, half below the ground and half above. A frame with a drop door about sixteen inches by three feet is built into one side of the vault above the ground, to enable its contents to be removed. Upon this vault the ordinary outhouse structure is built, as plain or as comfortable as desired. Attached to the rear of this, upon a platform placed at the height of the top of the vault, is built a brick ash chamber, say four feet square, with a cover. An opening four inches by four feet is then made between the ash chamber and the outhouse opening, about six inches below the seat board. It is evident that ashes now poured into the ash chamber would pass at once through this opening into the bottom of the vault. We therefore take a board of the same size as the seat board, with openings corresponding to those of the seat board, and closed on the under side by trap doors fastened with strong spring hinges, and fit it into the space beneath the seat board and about on a level with the floor. This brings it two inches below the opening from the ash chamber. Ashes now poured into the ash chamber can only pass down to this false bottom, and when this is covered two inches deep, or to the level of the opening from the ash chamber, ashes will cease to flow even if the ash chamber is filled to the top. Any deposit now falls into this bed of ashes immediately over the trap. A sash cord fastened to the free edge of this trap and passing backward over a pulley and up to a handle above the seat board enables one to quickly drop the ashes and deposit to the bottom of the vault, the spring hinges close the trap, ashes will now automatically flow in up to the former level, and all is ready for a repeated use. The false bottom should be covered with zinc, and an ordinary fire hook should be kept to assist in spreading the ashes should they for any reason become clogged.

An improvement upon this single board for a false bottom is to have the bottom but eight inches wide, with sloping sides about twelve inches high attached, the whole lined with zinc and fitted up under the seat board. This form cleanses itself more readily. Thus without odor, special attention, or nuisance, it will automatically continue to dry, disinfect, and remove all discharges throughout the year. Once or twice a year the contents of the vault may be removed, when it will be found that there is absolutely no odor, moisture, or offense of any kind, which is what prevents ordinary vaults from receiving proper attention. The desiccating and deodorizing power of ashes, properly applied, is marvelous.

The Boer Blood.—Lombroso (*Nuova antalogia; Journal de médecine de Paris*, June 17th) says: "The illustrious Dutchman Kuyser calculates that the Boer blood consists of Dutch, seventy-eight per cent.; French, twelve per cent.; Scotch, twelve per cent.; German, three per cent., with scarcely a trace of negro. This mixture of the best nations of Europe in a climate not at all enervating, with energetic habits, promises to form from this tried and selected people a centre of liberty and civilization, a race superior to all those of Europe."

The Huxley Lecture.—According to the *Lancet* for June 16th, Lord Lister has consented to deliver the third biennial Huxley lecture on Recent Advances in Science and their Bearing on Medicine and Surgery, at Charing Cross Hospital, London, on October 2d. The first lecturer was Professor Michael Foster, and the second Professor Virchow.

A French-Canadian Polyclinic has, according to the *Revue médicale* for June 20th, been organized at Montreal at Notre-Dame Hospital. The classes will be held every Monday and Thursday during the months of July and August as follows: Mondays: 9 A. M., ophthalmology, rhinology, and otology; 10 A. M., medicine; 11 A. M., surgery; 12 noon, gynæcology; 2 P. M., nervous diseases; 3 P. M., pædiatrics; 4 P. M., diseases of the skin. Thursdays: 9 A. M., gynæcology; 10 A. M., medicine; 11 A. M., surgery; 12 noon, gynæcology; 2 P. M., pharmacology and therapeutics; 3 P. M., minor and emergency surgery; 4 P. M., laboratory work. The clinical professors are as follows: Ophthalmology, Dr. Foucher, Dr. Duhamel; medicine, Dr. Rattot, Dr. Demers, Dr. Gauthier, Dr. Benoit, Dr. Hébert, Dr. Lesage; surgery, Dr. Brosseau, Dr. Mercier, Dr. Parizeau, Dr. Ethier; gynæcology, Dr. Brennan, Dr. Harwood; diseases of children, Dr. S. Lachapelle, Dr. Cormier; diseases of the skin, Dr. Valin. At the pathological laboratory of the hospital Dr. Parizeau, Dr. Valin, and Dr. Bemier will give instruction in clinical microscopy daily; also in the analysis of blood, urine, and other secretions and exudations, clinical bacteriology, serum diagnosis, etc. The fees this year will be ten dollars for the entire course. Information can be obtained from the secretary of the polyclinic, Dr. A. L. Ethier, at the Hôpital Notre-Dame.

The Chicago Ambulance in the Transvaal.—The following clipping from the *Buffalo Express* of unspecified date has been sent to us by Dr. Edmond E. Blaauw: "Dr. Macnamara, who went to the Transvaal as the chief surgeon of the Chicago Ambulance Corps and who has returned home, has made an interesting statement regarding the dissolution of the corps. It will b remembered that the dispatches from the Transvaa soon after the arrival of the Chicagoans said that man of them deserted the work they had engaged to do an enlisted to fight the British. Dr. Macnamara says that owing to the lack of organization in the Boer army, a ambulance system as it is understood in this countr was out of the question. The body was cordially received by the Boer officials, but the members found tha they could not operate as an ambulance corps. All the could do was to separate into groups of two or thre and join the different commandoes. Most of them ca ried on the work for which they were trained as bes they could in the circumstances, but Dr. Macnamar says he does not doubt some of the men, finding litt to do as nurses, took up guns as soldiers."

The New York School of Clinical Medicine.—We a informed that the school has not been discontinued, was stated in our last issue, although some members the teaching staff have resigned.

THE NEW YORK MEDICAL JOURNAL, JULY 21, 1900.

Original Communications.

THE PITUITARY GLAND AS A FACTOR IN ACROMEGALY AND GIANTISM.

BY WOODS HUTCHINSON, A. M., M. D.,
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(*Continued from vol. lxvii, page 453.*)

WHEN we come to look at the general and constitutional symptoms of giantism, one of the things which most forcibly strike us is the short life in most of the reported cases. Dana, out of sixteen cases in which the age of death was given, found only one beyond the age of fifty, and, as this represents the results of a careful research into all the records of giantism for the past two hundred years, and includes a survey of nearly one hundred cases, I think it may be taken as establishing a fair average of the longevity of these huge, abnormal creatures. The following are the ages at death of such giants as I have been able to get the life records of: Charles Byrne, twenty-two years; Cornelius McGrath, twenty years; Winckelmeyer, twenty-two years; James Toller, twenty-four years; the Tall Girl of Baslé, "in childhood"; Thomas Hasler, twenty-five years; the "Kentucky Giant," twenty-two years; Lady Aama, eighteen years. From these eight, which are not by any means selected cases, but represent all of simple giantism in which I have been able to get the exact age at death, we should get the average longevity, counting the Girl of Basle at eighteen, which was probably above her real age, of 21.3 years as the average duration of giantism. And when we remember that in several of these cases the abnormal stature did not begin to manifest itself until from the eighth to the twelfth year, we are justified, I think, in the somewhat surprising conclusion that we are actually dealing with a condition, call it disease or not, as we like, which is almost as rapidly fatal on an average as is acromegaly itself, which, as we have seen, may last anywhere from three to twenty-five years.

The next thing which would probably strike us is the decided impairment of the sexual functions in the majority of these huge creatures. So far as I have been able to gather, not more than two or three out of thirty-odd giantesses on record ever married at all, and of the giants only a small percentage. As Dana sums up his conclusion, "giants marry and even have children," but the number who do so appears to be extremely small. None of the giants in the lists given above, with the possible exception of Winckelmeyer, left any children, and, in fact, only one of them was married. And when we consider this fact, with the remembrance that exhibitors and owners of giants, from Frederick the Great down, have been most anxious that these monsters should marry, in the hope that their progeny would inherit the gigantic size of their parents (all of which experiments, I need hardly say, were entire failures, such children as were produced being of normal stature), the fact of this extraordinary indisposition to enter into matrimonial ventures, and marked infertility, is of itself a striking comment upon the low ebb of sexual development in most of these cases. In the few cases in which accurate investigations and measurements of the organs of generation have been made, the external organs of generation have been found to be extremely imperfect in their development; and in my own case the uterus was scarcely more than infantile in size; there was a clitoris so large as to give rise to the popular report that she was an "hermaphrodite," and the ovaries were rudimentary. A similar lack of development was present in Dana's Peruvian giant, in whom the penis was barely three inches in length.

As to the mental symptoms of the disease, in spite of such gory records as *Jack the Giant Killer* and *Og, King of Bashan*, all the accounts which we possess of any value show that giants in the vast majority of instances are a weak-minded, feebly amiable, indolent sort of people. For the most part their intelligence seems to develop little beyond the child stage; and as the disease progresses toward the fatal termination, we have the familiar acromegalic symptoms of weakness both bodily and mental, sometimes the weakness being so great that, on being kept on exhibition, they were obliged to hold on to some support when in the standing posture. There is the same failure of memory in many cases, the same headache, and death usually comes from a general failure of all the vital powers, unless the scene is cut short by the appearance of some ordinarily mild intercurrent disease. McGrath is said to have died as the result of a fall upon the stage, from slipping upon a piece of orange peel. Another giant is reported as dying immediately after a paroxysm of coughing, and Lady Aama died in syncope in the course of a very mild attack of *la grippe*.

As to the sex of these monsters, the male decidedly predominates. Dana, from his study of nearly a hundred cases, says that the giants outnumber the giantesses many times, and out of fourteen cases which have been accurately studied and recorded ten were in males. A similar but less marked preponderance appears to prevail in acromegaly. Out of fifty-seven successive cases, thirty-seven were in males.

To sum up briefly the result of our study of the phenomena of giantism, we find:

1. That the greater part of the overgrowth is found at or near the tips of the segment-crescents, as in acromegaly, differing from the latter mainly in that it is not exclusively confined to the tip of the segment or last division of the limb.

2. That the facial part of the skull is enlarged out of all proportion to the cranial, particularly in the region of the lower jaw.

3. That the condition, whether it be regarded as normal or morbid, is one that distinctly tends to shortness of life, and would appear to have an average duration of scarcely more than twenty years.

4. That the mental and physical vigor of the giant is distinctly below par, and his death usually comes either from a steady progressive increase of this weakness, or from some trifling accident, or usually mild, intercurrent disease.

5. That the sexual powers appear in the great majority of cases to be far below normal.

6. That there is a decided preponderance of males among the victims of this condition; in all of which statements there is a decided parallelism with acromegaly.

Last of all, and from the point of view of this essay of greatest interest, is the fact that the one morbid condition which is peculiar to both these disturbances of nutrition, the enlargement of the pituitary body, is found to be present in a large majority of cases of both.

Hitherto we have been dealing with conditions which can only be regarded as symptomatic indications of some deeper-seated dystrophy or disturbance of nutrition; but the fact of the totally different position of this body from any of the other parts affected, the extraordinary degree of the enlargement which it undergoes, and the constancy of its involvement in all cases in which autopsies have been made, have directed attention to it as the possible causal condition from the very first, more than any other change which is found to be present. The constancy of this change may be judged from the following: We have been able to secure reports from the time of Souza-Leite's essay to the present date of writing of in all forty-eight cases of acromegaly, pure and simple, in which autopsies were held, and in no fewer than forty-four of these the pituitary body was found markedly hypertrophied. In one of the four, in which it was reported as normal, the case of Waldo, the whole base of the cerebrum was found to be the site of cystic degeneration, and from the rapid course of the case and the atypical character of the symptoms presented, several writers have seriously doubted as to whether it is to be regarded as a case of acromegaly at all. In the other three cases, those of Bonardi, Packard, and Frantzel, the pituitary body is reported as "apparently normal," but no microscopic examination was made in any case. But even including this doubtful case, we have this symptom occurring in no less than ninety-two per cent. of all the cases reported in which autopsies were held. On the other hand, it is only fair to say that we have now on record two cases, reported by Packard and Wills, in which there was marked apparently normal hypertrophy of the pituitary body, without any of the characteristic symptoms of acromegaly.

So far we have been considering those cases which were originally regarded and reported as cases of simple giantism, and only a part of which were afterward suspected to be victims of acromegaly. I now wish to call your attention to a series of cases which would be acknowledged by even the most confirmed "dualist" to be, as he would express it, a "combination" of acromegaly and giantism. First of all we may mention those cases of giant skeletons preserved in museums which, after the publication of Marie's paper, were investigated with a view to determining the possibility of their presenting acromegalic features. The first of these was the magnificent memoir of Cunningham, from which we have already extensively quoted, in which he produced conclusive evidence that the Dublin "Irish giant," Cornelius McGrath, was unquestionably a victim of this disorder, and believed that he had strong ground for coming to the same conclusion in reference to the London Irish giant, Charles Byrne, very shortly after. The second was a skeleton described by Taruffi, in 1892, that of a man dying in 1808, and preserved in the museum simply on account of its giant size. Upon investigation the pituitary fossa was found enormously enlarged, the lower jaw markedly increased in size, the hands and feet out of proportion to the rest of the skeleton, and, in fact, Taruffi felt justified in declaring it to have been an unquestioned case of acromegaly in a giant. About the same date Tamburini reported a similar case, which was followed in the autumn of 1893

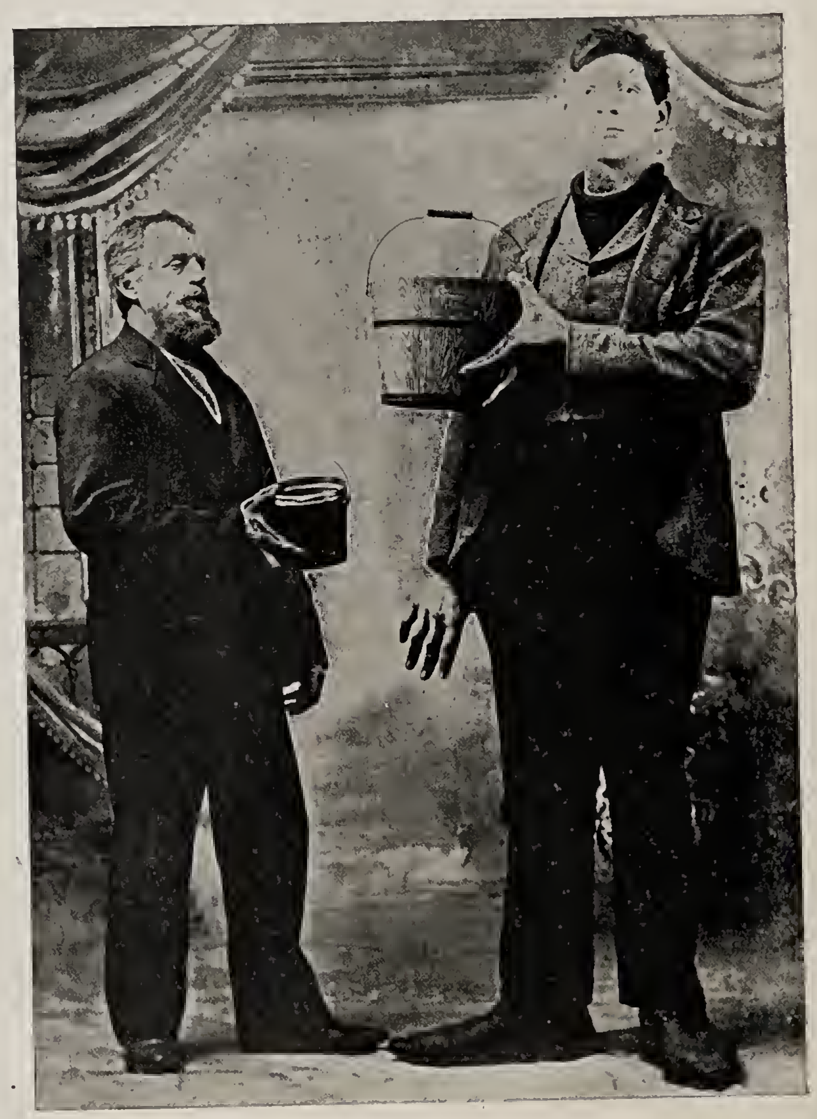

FIG. 3.

by the almost simultaneous report by C. L. Dana and the writer of a case of this disease in a giant and giantess respectively, in both of which an autopsy was fortunately secured. Dr. Dana's case was one of such interest that I venture to give a brief *résumé* of it from his account published in the *Journal of Nervous and Mental Diseases*, November, 1893. The subject was a Bolivian Indian, Santos Mamai, thirty years of age, who was exhibited in a "dime museum" in New York, under the name of the "Peruvian giant." He was one of a troupe of Indians who had come for the purpose of exhibiting themselves, but, being unsuccessful, drifted to New York in a bankrupt condition, where Santos was taken ill. The principal symptoms presented by him were excessive weakness, mind dull and irresponsive, pulse feeble and rapid, some signs of slight bronchial trouble, but no elevation of temperature. Dana says "he was apparently suffering from no pain, and presented no evidence of paralysis or any manifestly acute disease; he simply seemed to be in a state of collapse. In spite of stimulants, this collapse increased, and he, in the course of four or five hours, passed into a state of coma and remained so until death, about twelve hours after admission." Upon examination after death, his height was found to be six feet seven inches, his weight three hundred pounds. His first appearance instantly suggested to Dr. Dana the possibility of acromegaly, and upon careful measurements of all parts of the body he was found to present a hypertypical case of the disease—huge jaw, immense hands and feet, very prominent malar bones, enormous enlargement of thorax, kyphosis of the dorsal spine, etc. The pituitary body was found enormously enlarged, and a microscopic study of it will be presented further on in this article.

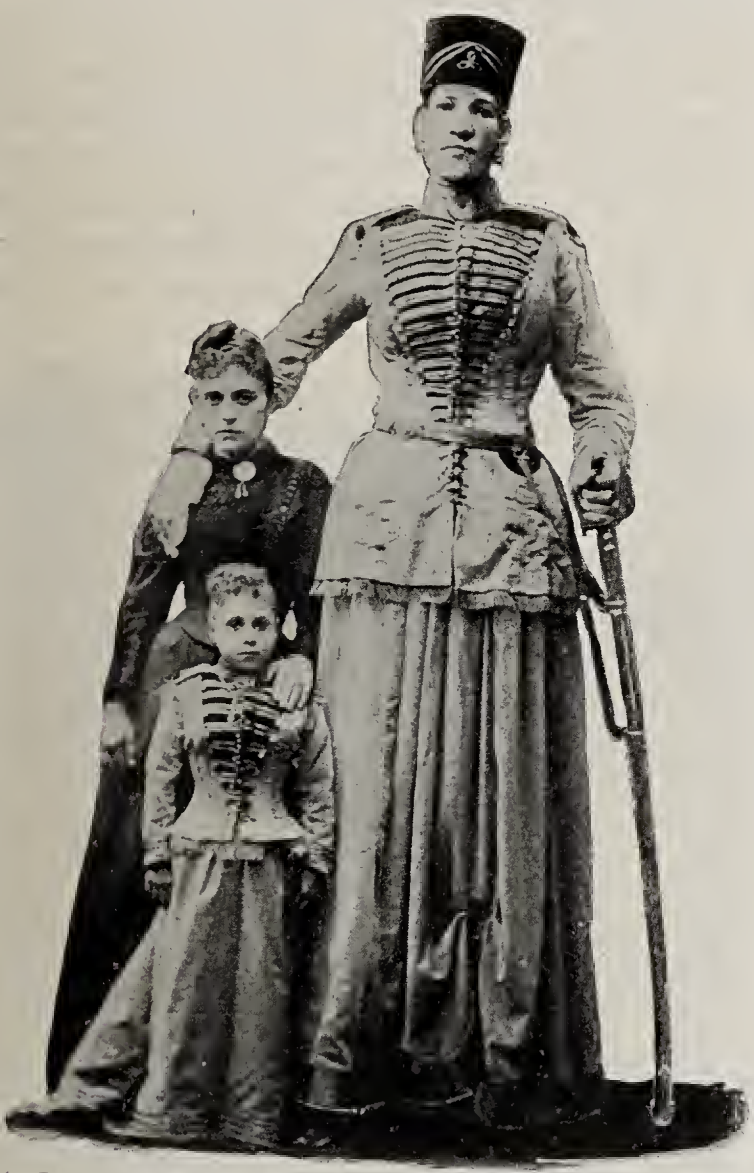

FIG. 4.—Lady Aama and her sisters. Height, six feet seven and three quarter inches. Age, eighteen years.

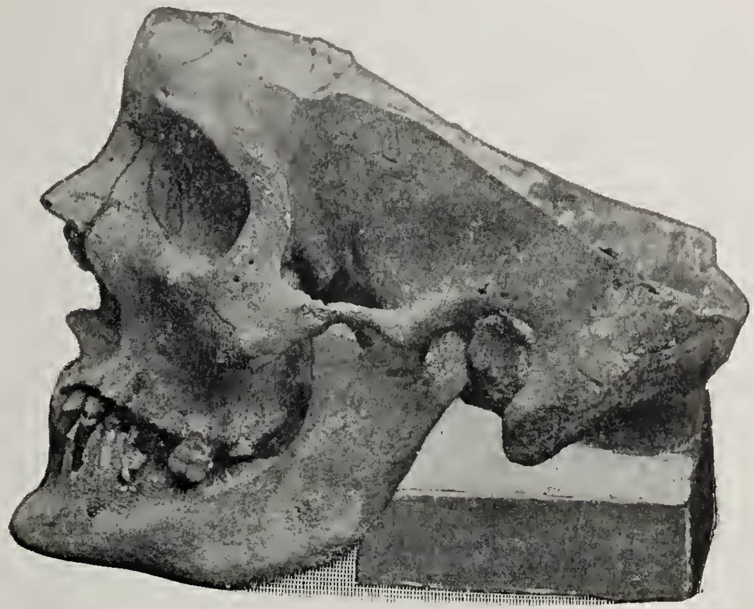

FIG. 5.—Skull of Lady Aama, showing enlarged nasal bone (outlines accentuated by crayon).

The case of the writer was in a French giantess, known as Lady Aama, a full report of whose case was published in the *American Journal of the Medical Sciences*, August, 1895. She was eighteen years of age, six feet seven inches and three quarters in height, and died in what appeared to be a mild attack of *la grippe*, after gradually failing in strength for some four or five years previously. Here also the first glance at the face suggested the possibility of this disease, and a series of measurements, as included in the report, corroborated this impression, and showed the characteristic developments in almost every particular. The only unusual or specially characteristic feature was the ex-

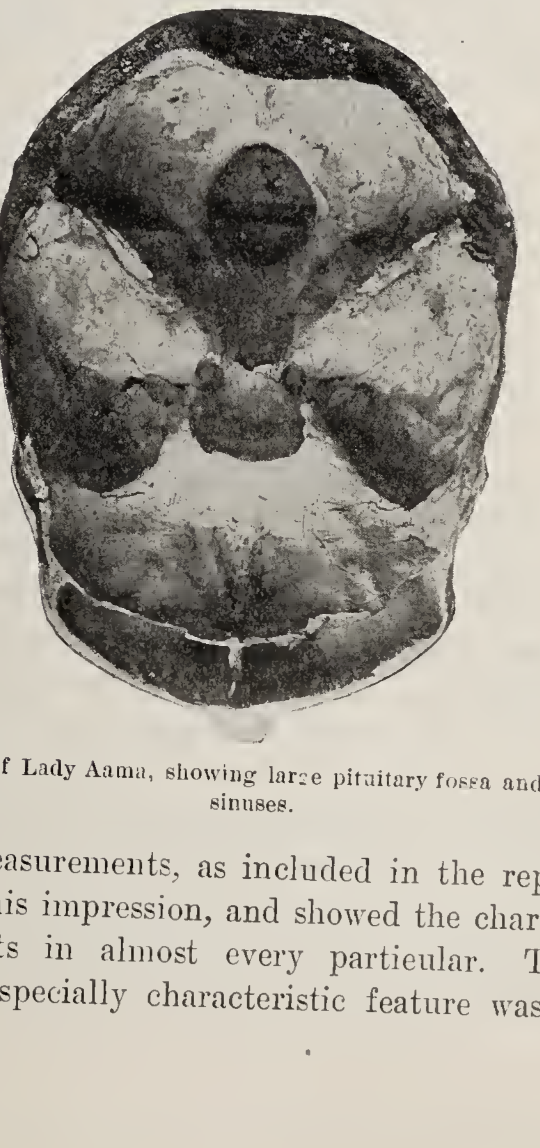

FIG. 6.—Skull of Lady Aama, showing large pituitary fossa and huge frontal sinuses.

tremely imperfect development of the sexual organs. The pituitary body was found to be greatly enlarged, but, owing to the fact that the body was not secured until some days after death, it was so degenerated that it was torn across in removal, and could not be preserved for purposes of study. It appeared to be of about the size of a pigeon's egg, and could be pretty closely estimated from the dimensions of the fossa, which measured an inch and a quarter from before backward, and an inch and a half from side to side (31 mm. × 37 mm.).

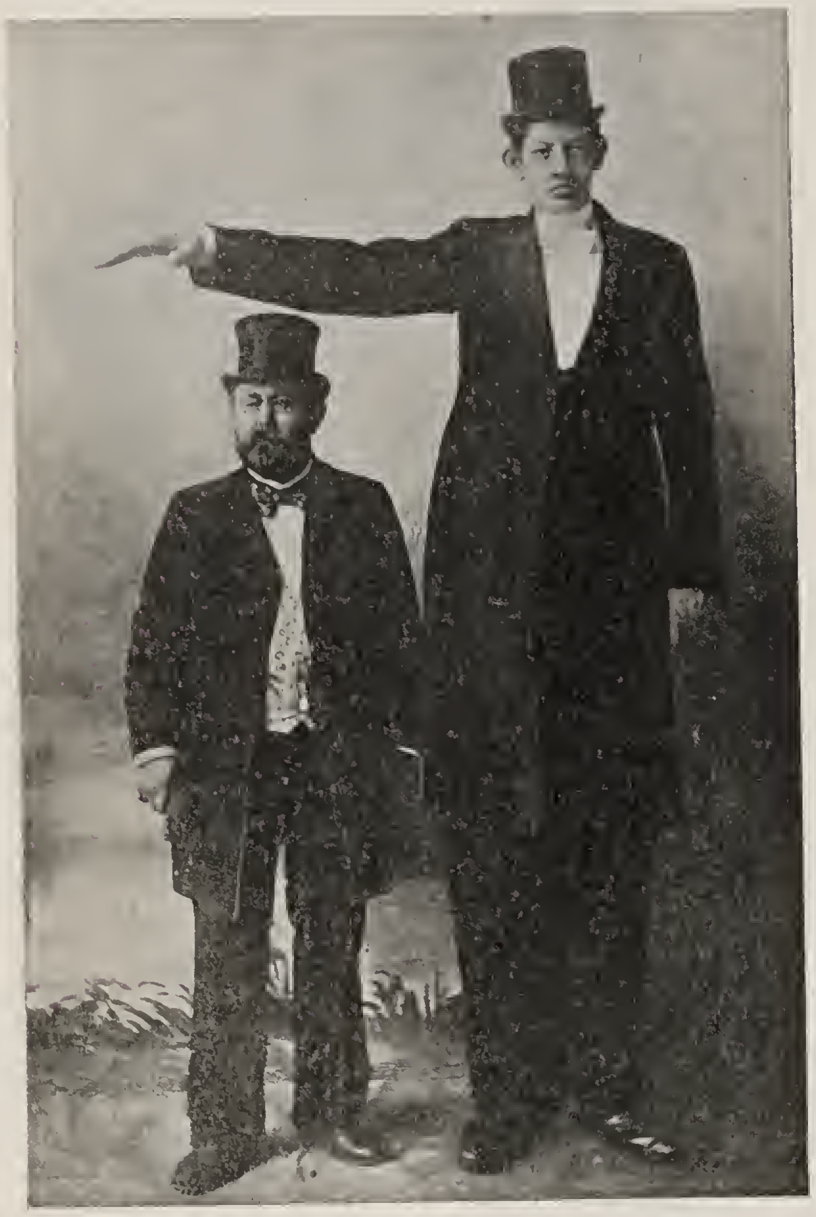

FIG. 7.—The giant Constantine. Born in Germany. Acromegalic in jaw, nose, ears, eyes (divergent strabismus), hands, and feet. Height (alleged), eight feet one inch. The other individual is his father. Mother is also of medium height. Three brothers, all of normal proportions.

Later in the same year, Klebs reported a case of a man exhibited under the title of the "German giant," with the singular history that his overgrowth did not begin until about the thirty-sixth year, after which he rapidly attained sufficiently gigantic stature to make him available for exhibition purposes. The case was found upon examination to be a typical one of acromegaly.

In July, 1894, Sirena, of Palermo, reported a case of fairly well-marked acromegaly in a giant from Cairo.

In January, 1895, Brissaud and Meige reported a singularly interesting case which will be dealt with in greater detail in another connection, that of a man, aged forty-seven years, seven feet high, weighing three hundred and forty-six pounds, who had been exhibiting as a giant for a number of years, and who presented well-marked symptoms of the disease.

Sternberg has unearthed a case of acromegaly in the description of a giantess by J. Wier as far back as 1567, which he not unnaturally is inclined to regard as the oldest case of acromegaly on record.

To these I am prepared to add four new cases, in two of which, however, the study has been so imperfect, and the details to be obtained so meagre, that I must apologize for presenting them at all, my only excuse being their extreme interest in this connection. The first of these is that of the "Kentucky giant," whose skeleton is preserved in the Mütter Museum, College of Physicians and Surgeons, Philadelphia. There was absolutely no history of the case to be had during life, as the body was secured by the museum authorities only upon the condition that no questions should be asked. It was merely known that the body came from Kentucky, and was that of a man supposed to be about twenty-two years of age. An examination of the epiphyses confirmed the tradition as to his age, the degree of their union indicating the age of twenty-two to twenty-four. Nothing, of course, was known as to the

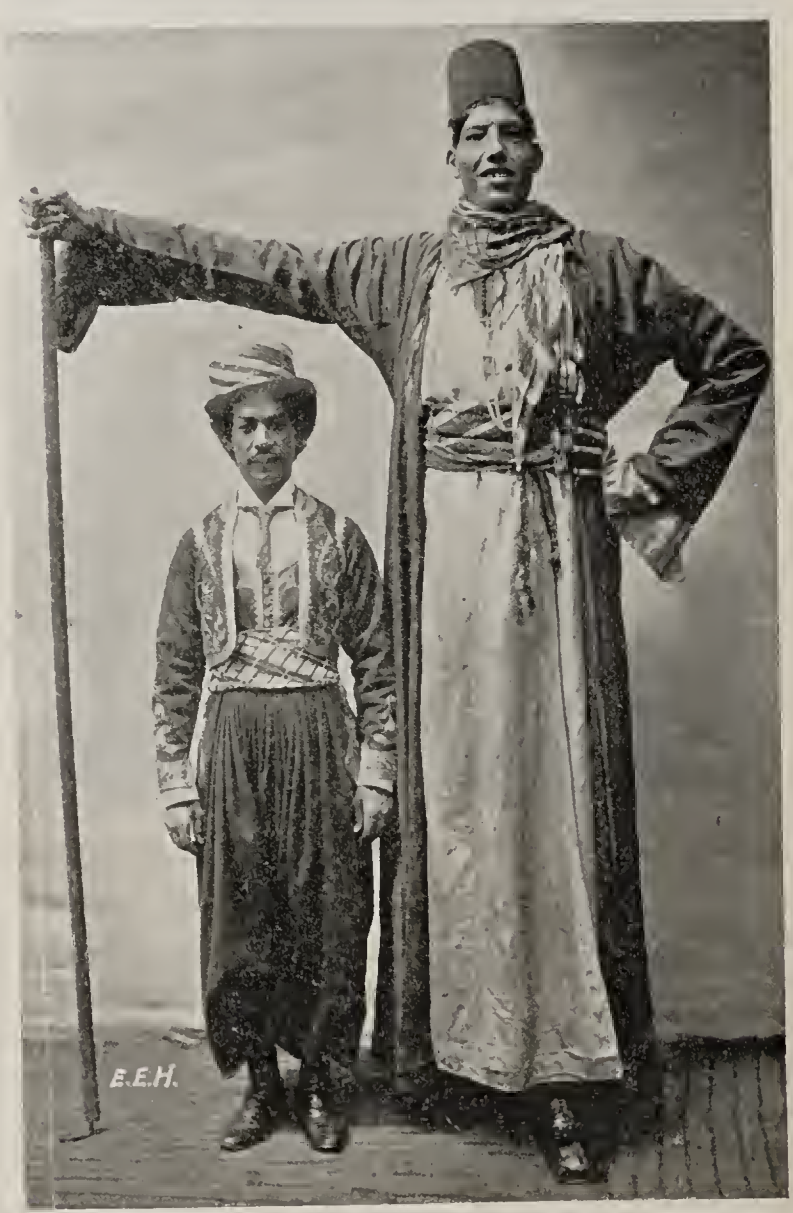

FIG. 8.—Giant Hassan Ali. Probably acromegalic. Age, twenty-three. Alleged height, seven feet eleven inches; real height about seven feet four inches. Length of palm, twelve inches; length of foot, twenty-six inches.

cause of death, and the body was in such poor condition when received that no investigation or measurements of it appear to have been made. The height of the skeleton from a plane passing through the tuberosity of the os calcis to the under surface of the head of the first metatarsal to the vertex was seven feet six inches and a half. The measurements of the entire skeleton are appended, and we think will be found to show abundantly sufficient evidence to justify us in regarding the case as one of acromegaly. First of all, the pituitary fossa is greatly enlarged, measuring twenty-seven millimetres in antero-posterior diameter and no less than forty-two millimetres in transverse, with a depth of thirteen millimetres (this being more than double the diameters of the fossa, which ordinarily measures about twelve millimetres from before backward, and eighteen millimetres from side to side). Next the lower jaw measures thirteen centimetres from angle to symphysis as compared with the normal male measurement of 9.3 centimetres, a preponderance of 3.7 centimetres, an excess of nearly forty-two per cent., while the excess of the entire stature above the normal is barely eighteen per cent. The size of the frontal sinuses, again, is most strikingly increased, as shown by their transverse diameter of 7.5 centimetres, and their antero-posterior of 2.4 centimetres, which is between two and three times the normal size. On the other hand, while the proportional length of the lower limb is slightly greater than that of the normal, yet it is scarcely more than ten per cent., and the size of the hands and feet is a little below the normal proportion to the stature. These last dimensions, however, as pointed out by Cunningham, can not always be relied upon in judging of the actual size of the hands and feet during life, as in some cases of acromegaly the overgrowth appears to confine itself largely to the soft parts, although, as a rule, the bones also participate.

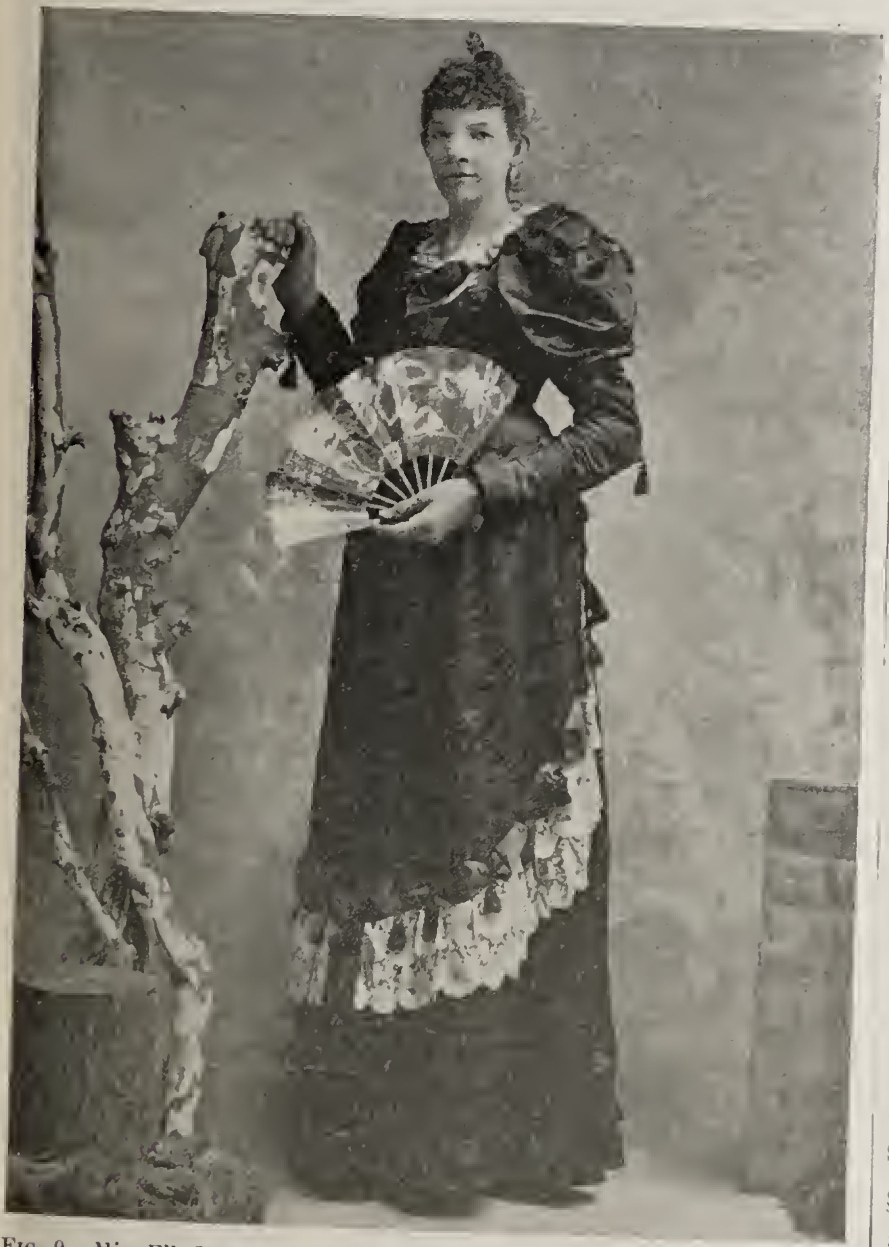

Fig. 9.—Miss Ella Ewing. Height (*c*), seven feet six inches; age, twenty-three; weight, two hundred and fifty-six pounds.

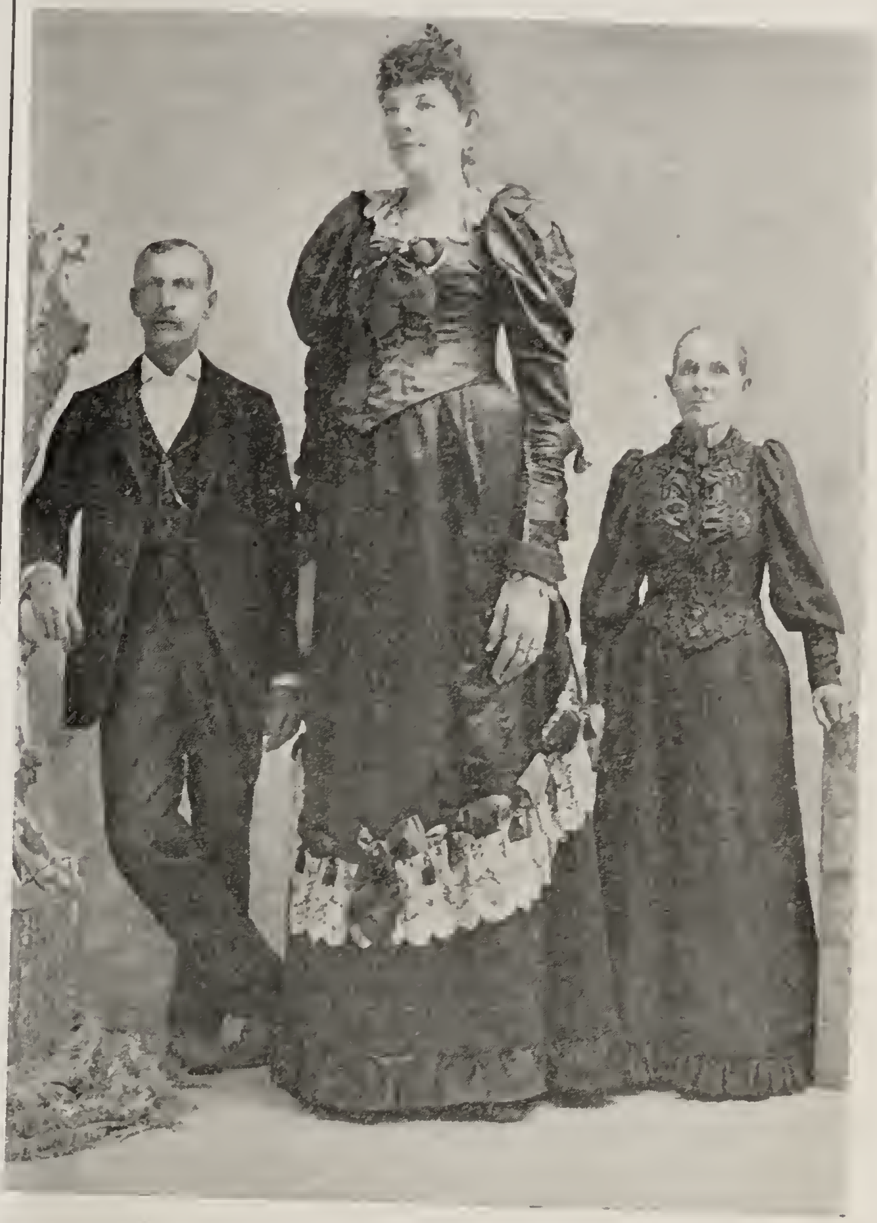

Fig. 10.

The next case is that of a giantess from Missouri, named Ella Ewing, whom I discovered on exhibition at a Western State Fair. I regret extremely my inability to give accurate measurements in this case, which proved impossible, partly from the natural modesty of the young lady in question, and partly from the well-known reluctance of exhibits of this description to submit to accurate measurements. Her height was given at eight feet two inches, her age as twenty-three, and her weight as two hundred and fifty-six pounds; and as Dr. Dana has declared as a result of his experience with this class of cases that an approximately accurate result may be obtained by deducting from three to five inches from the advertised height of these individuals, this would give her a probable height of about seven feet nine inches. My own estimate of her height, from such crude methods as I was permitted to adopt by standing beside her and comparing her height with that of normal individuals of known stature in the room, was that she was in the neighborhood of seven feet six inches. Although declining to permit any measurements other than those appended to be taken, I was given the privilege of quite an extensive conversation with Miss Ewing, and she seemed to be perfectly willing to give me any information which was in her power. According to her own statement, she had not begun to grow beyond the normal rate until about nine years of age, when she rapidly shot up to nearly her present level, although she had not yet apparently reached the limit of her growth, as she had gained an inch during the past year. In both the photographs here given I think that the disproportionate enlargement of both upper and lower limbs is so striking as to be in need of no verification by actual measurements. In fact, so apparent was the tremendous elongation of her lower limbs that I was inclined to suspect that her height had been added to by means of some form of stilt. Direct investigation on this suspicion was, of course, out of the question, in view of her sex; but after careful watching I succeeded in getting a good view of her feet, which at once dispelled any suspicions which I had entertained as to the possible use of stilts or artificial feet. They were of such enormous size and clumsy shape that no woman of any age, giantess or otherwise, would have dreamed of counterfeiting them, and her refusal to permit me to measure them was extremely emphatic. It will be noticed, however, that the hand in the second picture descends to apparently below the normal level of the mid line of the femur, but this is probably due to the fact that this member is also greatly increased in length, as is shown by the statement that the spread of her arms was no less than ten feet two inches, a disproportionate development even relative to the stature which reminds one of the anthropoid apes. The length of the hand from the bend of the wrist to the tip of the middle finger was ten inches, an excess of nearly an inch above the normal proportion of her "estimated" stature. But it is in its other proportions that it becomes most characteristic, as it has a circumference of no less than ten inches, and the fingers, though not strikingly thickened, have the peculiar sausagelike appearance of a mild form of acromegaly. No measurements were permitted of the jaw or other parts of the face, but the impression given upon inspection was that both the lower jaw, the nose, and the malar bones were distinctly excessive in their development in comparison with the forehead and cranium; and we think that this shows sufficiently, even in the photograph presented, to justify the statement of this disproportion. Miss Ewing was born in Missouri, and was the only child of her parents, who are represented in the first photograph standing upon either side of her, whose heights are given as six feet two inches and five feet one inch and a half respectively, and who appear to be normal in every particular. She gave no history of any illness other than the ordinary diseases of childhood, her growth having started shortly after an attack of the measles; and the only thing of interest in her previous life was the fact that she had broken one of her tibiæ (her "ankle," as she expressed it) some two years before, simply by jumping down carelessly from the top of a stump about two feet high. She stated that the broken bone had healed without any deformity, but declined to permit me to examine the part. Although no examination of her mouth was permitted, her speech had a distinctly thickened and almost lisping character, which strongly suggested an enlarged tongue. Her intelligence, while normal, appeared to be about that of the ordinary country girl of thirteen or fourteen. She had no disturbance of vision, and denied the existence of headaches, although admitting that she was rather easily tired. There were no symptoms which could be elicited pointing to any marked enlargement of the pituitary body. No kyphosis could be detected, and the girl declared herself to be in every way in perfect health.

While it would be impossible to make any definite statement upon such meagre data, yet in view of the decided impression made by the appearance of the girl, of the excessive development of both upper and lower extremities, the shape of her hands, the disproportionate size of both jaws, as also of the nose, and the lisping speech, I should be inclined to regard the case as an early stage of acromegaly. I shall endeavor to keep watch of the further developments in her case.

There is one other case which I can hardly refrain from mentioning in this connection, although I must admit that for purposes of scientific record it is of the very slightest value. The case was that of a giant who was traveling with a troupe of dwarfs known as the Lilliputians, under the name of "the Giant Caleb," and whom I incidentally saw while attending one of their entertainments two years ago. He was said to be eight feet three inches in height, and he looked every inch of it. His appearance even upon the stage was instantly suggestive to my mind of acromegaly, and when, at the close of the first act, to my great delight, he came out by one of the side doors and proceeded to walk down the aisle for the purpose of allowing the audience to assure themselves that he was a genuine giant, and not a "fake" on stilts, I saw that he was in face, hands, and feet an unmistakably typical case of the disease. The first impression that his face made upon me was a rather singular one, for although large and massive, and with the peculiarly "horselike" expression characteristic of the disease, it at first sight appeared as if the lower part of the face was not developed out of proportion to the upper or cranial portion. But upon closer inspection this apparent symmetry was found to be produced by an enormous overgrowth of the forehead, giving it a positively overhanging, prominent, bulging appearance, under which his small, beady eyes twinkled in a positively repulsive fashion. I have no doubt whatever that this was due to an enormous expansion of the frontal sinuses which is characteristic of this disease, inasmuch as the central and posterior parts of the cranium were not in any way proportionate to the apparent overdevelopment of the frontal part. His lower jaw was huge and massive, and his articulation thick and indistinct. His hands were enormous and of the characteristic spadelike shape; while as to the size of his fingers, this was illustrated in a most singular manner by his taking off one of his rings and allowing any one who wished to slip a half-dollar through it, which could be done with ease. His feet also were of enormous size, and he walked with a stoop and shuffle. In an evil moment for myself, I postponed calling upon him, for the purpose of securing, if possible, measurements and a photograph, until the following morning, only to find, to my great disappointment, on going to his hotel, that the company had left on a midnight train, and I have never since secured any trace of him. As I said, the case is simply presented as a naked-eye observation, for what it is worth, and not as a positive addition to the scientific literature of the subject.

This, then, brings the number of cases reported up to thirteen, forming a considerable portion of all the giants which have been reported and investigated during the past ten years, and, in fact, we are not surprised to find it generally admitted even by the "dualists" that a considerable proportion of giants become acromegalic in later life. Sternberg, who has made an elaborate *résumé* of all the cases of both conditions reported up to 1895, although still keeping up a distinction between acromegaly on the one hand and giantism on the other, admits that twenty per cent. of all acromegalic cases are giants, and forty per cent. of all giants are acromegalic and die of acromegaly.

In this connection there are still three other cases to be presented, which to my mind are of peculiar interest as furnishing, if anything further was needed, the essential "missing link" between these two morbid conditions. The first is that of a case reported by Virchow as early as 1889. The patient was a man who could barely be described as of gigantic stature, but was especially distinguished for his enormous strength, and for a number of years was on exhibition as a champion "strong man." Later, however, his strength began to fail, his mind followed suit, and the characteristic symptoms of acromegaly developed. The veteran pathologist includes with this case two others in which, though no gigantic growth occurs, yet a marked increase of muscular development and power appears, rapidly followed by acromegalic decline; and with that wonderful insight which has always distinguished him he announced even then that in his opinion acromegaly was a "secondary stage of degeneration after overgrowth."

The next was the celebrated case of Brissaud and Meige, reported in the *Journal de médecine*, January, 1895. The patient was a man of forty-seven, who up to the age of sixteen had presented nothing unusual in his stature or development. At this age, however, he began to grow rapidly until he reached the height of seven feet. He also developed muscular strength in proportion, and weighed three hundred and forty-six pounds. At the age of thirty-seven, twenty-one years after the first symptoms of overgrowth, he is said to have "strained his back" by lifting heavy weights in some of his exhibition feats of strength. Kyphosis rapidly developed, accompanied by general failure of strength, and in a short time the poor fellow's height was so markedly diminished that he was no longer available for exhibition purposes as a giant, and his strength left him as rapidly as Samson's. His height at the time he came under the observation of the writers was only six feet two inches. He was so bowed that his hands hung below the level of his knees. He suffered extremely from thirst and had night sweats. Both jaws were hugely developed, the cheek bones extremely prominent, and the supraorbital ridges projecting to such a degree as to, in the language of the authors, "resemble those of an anthropoid ape." His tongue was enlarged and the skeletal muscles were generally atrophied.

Last of all, by singularly good fortune I have been able to get a tantalizing although most suggestive glimpse and sketch almost parallel to the preceding, the interest of which, and the circumstances under which it was seen and attempted to be investigated, must serve as its own apology and defense for here presenting it. Two years ago I was in a train on my way to the meeting of the Iowa State Medical Society with a group of medical friends. The party was joined at one of the smaller stations by a local practitioner who, knowing that I was interested in the subject, hastened to inform me that the station agent at the next station was, or, more accurately, had been, a giant, and presented such curious symptoms that he thought it well worth my while to get a sight of him while the train went by, with a view to further study of his case in the future. I accordingly went out on the front platform of the car and, as the train slowed up at the depot, gazed around for the individual in question, but to my great disappointment he was nowhere to be seen, either in his office or anywhere about the platform. However, as the train moved on and brought us opposite the end of the little ticket office, we discovered the poor fellow evidently endeavoring to hide from the curiosity of the passengers behind the end of the building. On seeing us looking at him he promptly stepped forward and made demonstrations with both features and fists, in evident resentment of our perhaps somewhat inconsiderate curiosity. The train was moving very slowly, and, although the time that he was under observation was very short, yet the impression he made was a most striking one. He was a young man apparently considerably above the average height (as he stood there I should say six feet seven inches), with an extraordinarily elongated countenance and projecting jaw, and of a dirty yellowish or earthy complexion. He stooped tremendously, so that evidently his original height had been much greater than it then was. His eyes were small and sunken, his brows projected; his arms were long and ungainly, and hung down in front of him in the most simian fashion; his hands were huge and misshapen, and his feet perfectly enormous. In fact, the entire impression was positively a repulsive one, and the poor fellow bore a most striking resemblance to one of the great anthropoid apes, a likeness which his threatening gestures and grimaces in no way diminished. We afterward learned that the man had become a local wonder to such a degree that nearly every train which passed his station would bear one or more curious gazers, and he had hence been gradually goaded into this childish but pardonable method of screening himself from such unwelcome curiosity. We were told that he had been persuaded to come and have himself examined by the members of the State Society in the hope that some one might be able to suggest some method of relief for his trouble, but this proved to be an error. Shortly after my return home I wrote to one of my fellow practitioners in the nearest town, asking him if he would kindly call upon the patient and elicit his history, and, if possble, have a photograph taken and make some measurements, intending, if the opportunity seemed favorable, to go down and make a careful study of the case myself. My friend kindly called upon the station agent, but was instantly met by a flat refusal to communiciate any information whatevr or allow any measurements, and least of all any photographs, to be taken. The poor fellow had grown so sensitive over the curious remarks and inquisitive looks to which he was so constantly subjected that the mere mention of his defects or request for their study produced in him a perfectly uncontrollable irritation. All that my friend, Dr. Bell, to whose kindness I am much indebted, was able to elicit was his name (of which, out of consideration for his feelings, the initials only will be given), his age, and a few of the details of his history. Mr. K. H. was thirty-two years ago and born in Missouri. In boyhood he began to show signs of great stature and strength, and as early as thirteen years of age was a local celebrity on account of his remarkable muscular development. At eighteen years of age, nearly fourteen years ago, he believed that he had "overstrained" himself in pulling against a team of horses, which was one of his exhibition feats. Only a short time after that, curvature of the dorsal spine began; although this had not interfered sufficiently with his height and strength to prevent his exhibition as a giant at the World's Fair in 1893, yet since that time its progress has been so rapid that he had lost so much of his height as to be entirely disqualified for exhibition purposes, and he had accordingly accepted the position which was offered him by the railroad company as station agent. His strength, however, began to fail much earlier, so that within three or four years from the time of his strain he was no longer capable of exhibition feats of strength. His height was stated to have been originally seven feet four inches, but his present stature certainly did not exceed six feet five inches or six feet six inches, although his stoop was so enormous that one could readily believe that he might at one time have attained the former alleged height. No measurements, of course, being permitted, we are obliged to simply depend upon the statements or impressions made upon the eye at the time of this conversation. As to his hands

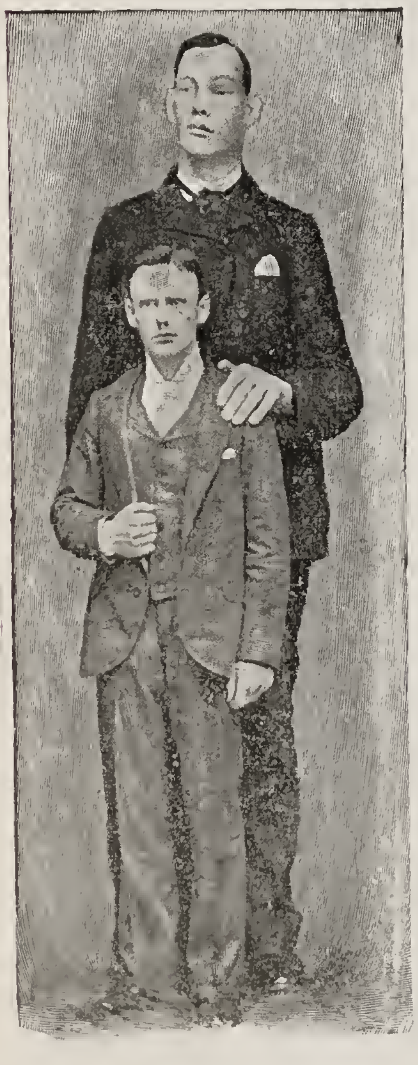

FIG. 11.—Minnesota giant with partial (hemifacial) acromegaly. (Dana.)

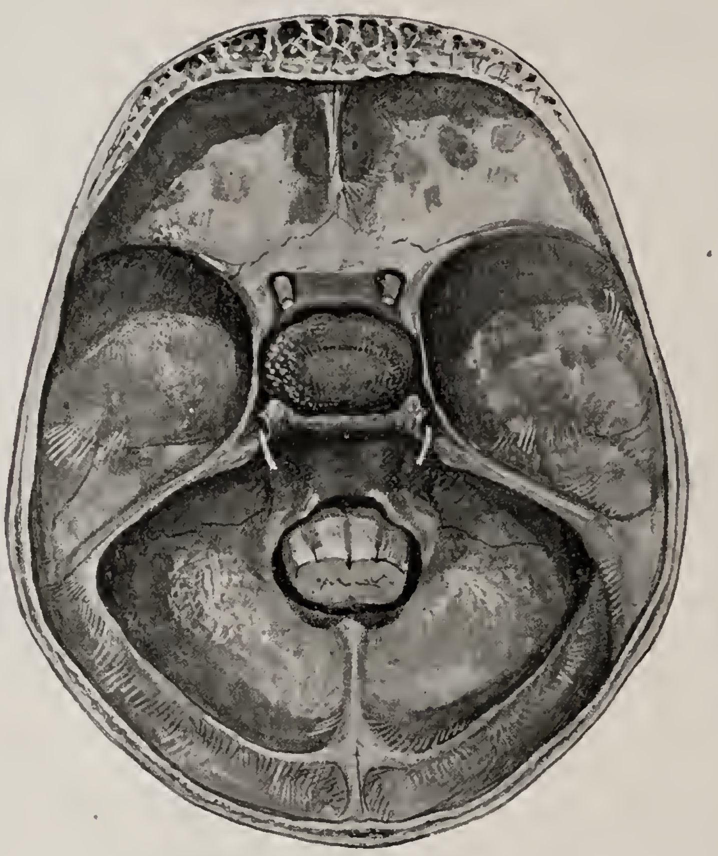

FIG. 12.—Base of skull of Minnesota giant, showing huge pituitary fossa and enlarged frontal sinuses. For account of autopsy see appendix.

and feet, the enlargement of these was so striking as to need no measurements in support of the fact that they were immensely hypertrophied. His hand, for instance, was so large that he could readily grasp an ordinary dinner plate and lift it with his right hand directly from a flat surface, which must have involved an expansion from thumb to middle finger of at least fifteen inches. This had been one of his exhibition feats. The hands were also of the characteristic spade shape, and the fingers thickened and bolsterlike. As to his feet, they were the principal source of suffering to his sensitive nature, as they were the facile butt of the delicately personal shafts of wit of the country neighborhood in which he lived. The most widely admired of the *jeux d'esprit* of which they formed the subject was the declaration of a local satirist that whenever he had new shoes made, each one had to be brought from Chicago in a separate box car.

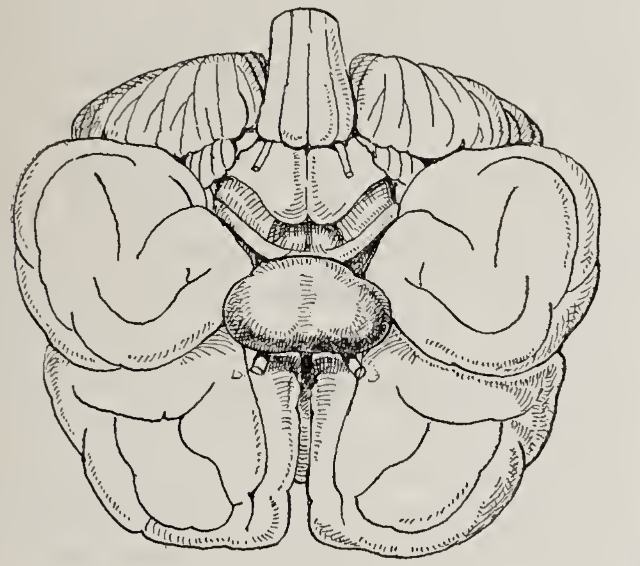

FIG. 13.—Base of brain of Minnesota giant, showing pituitary tumor.

His general health appeared to be fairly good, except, of course, that he was not as capable of sustained exertion as a man of average proportions and development, and his mental condition seemed to be about the average, and was said to be quite equal to the clerical and other duties of his position. There, however, seemed to be little question that he was developing a degree of irritability and childishness in his methods of showing resentment at exhibitions of curiosity which was perhaps even more than could be normally accounted for by the many really trying attentions to which he was subjected.

Another attempt was made later to obtain measurements and a photograph, but was again met with an angry refusal, Mr. K. H. declaring that he was not going to have "them there doctor fellers" make an exhibition of his peculiarities before the public as long as he could prevent it. Probably a photograph might have been obtained by means of a concealed kodak, and a few measurements by the adoption of a little modern journalistic "enterprise." But the poor young fellow's sensitiveness was evidently so genuine, and his mortification so bitter over the coarse though not unkindly meant ridicule to which his deformities had subjected him, that I did not feel that even the demands of scientific investigation would justify me in such a procedure. I am, however, still keeping watch of the case, and shall hope at some future time to be more successful in overcoming his reluctance, or, if the worst comes, as his evidently rapidly weakening condition would seem to render quite probable, to be able to obtain measurements and photographs after death.

The impression made by the appearance of Mr. K. H. was so striking that I have no hesitation in declaring my opinion that he was a typical case of acromegaly beginning in early life, and producing first of all those manifestations of that stage of the disease which we call gigantism, and later revealing itself in its usually accepted form.

Last of all, since the publication of this paper was begun, I have secured the photograph and history of another acromegalic giant from Minnesota. For these I am indebted to the great kindness of Dr. C. O. Cooley, of Madelia. The person, James McIndoo, is a boy of eighteen years, the second son in a family of eight children, all of whom, together with the parents, are normal and healthy. His weight at birth was nine pounds, and his size and development attracted no special attention till he was about thirteen years of age, when he began to grow very rapidly, and he has now reached the height of seven feet one inch and the weight of three hundred and eight pounds.

His intelligence is about that of a boy of ten and, though his muscular strength is great, his movements are slow and imperfectly coordinated. His appetite is enormous, and he sleeps from fifteen to twenty hours at a stretch. His chest is huge, measuring forty-nine inches and a half on full inspiration, with an expansion of ten inches and a half. His sexual development is backward.

The acromegalic characters are: 1. The disproportionate size of both hands and feet, which is well seen in the photograph. His foot is sixteen inches long, or two inches above the normal one sixth of his stature. His hand has a span of fourteen inches, or forty per cent. above the normal, while his stature is only twenty-five per cent. above normal. 2. The thick, cushionlike shape of his feet, though his hands are comparatively well shaped. 3. The great size of the facial portion of his skull as compared with the cranial. He can wear a No. 9 hat and his cranial circumference is only twenty-six inches, or three inches above the average, and much of this is probably due to enlarged frontal sinuses. 4. The huge size of the orbit compared with that of the palpebral aperture, probably due to enlarged malars and frontal sinuses.

These figures and descriptions are, of course, in the nature of the case and from the rarity of the disease, few in number as yet, and not such as to justify us in any very positive statements in regard to the identity or difference of acromegaly and gigantism; and yet, so far as they go, they point so constantly in one direction that we are, in my mind, justified at least in the tentative conclusion, until some evidence to the contrary can be adduced, that acromegaly and gigantism are simply different expressions of one and the same morbid condition; in other words, that acromegaly is a general overgrowth tendency which does not, for some reason, begin to express itself until after adult stature has been reached, and which consequently expends itself upon those points in the body at which growth last ceased—the extremities of the segment crescents and the distal extremities of the appendages. Second, that gigantism in a large majority of cases is this same condition manifesting itself in childhood or before complete stature has been reached, and the growth in consequence is more symmetrical and less strictly confined to the last segment of the arches and appendages. In most cases, however, the tendency appears to be for these last segments to grow in an unsymmetrical and excessive manner. Third, that in view of the shortlivedness, the sterility, the feeble mentality, and weak, clumsy bodily development of giants, we are justified in regarding both acromegaly and gigantism as distinctly morbid conditions of very nearly the same course-history and degree of fatality. Last of all, that in the remarkably large percentage of all carefully studied cases of both diseases in which hypertrophy of the pituitary body is found, we have what appears to be the common pathological basis of both these morbid conditions.

We will now proceed to study somewhat in detail first the frequency and extent of this interesting hypertrophy and, second, the apparent nature of the overgrowth so far as it can be judged from the cases in which microscopic examinations have been made. As I have already stated, we have now on record forty-eight cases of acromegaly in which autopsies have been held. Out of these forty-eight cases the pituitary body was found enlarged in no less than forty-four, giving a percentage of nearly ninety-two. This list includes only two of the cases already mentioned in which the subjects were giants or giantesses also; and in the so-called pure giants outside of this we have nine cases recorded, in no less than eight of which, either from the state of the pituitary fossa after death or from the local pressure symptoms during life, an enlargement of this body may be affirmed, making a total of fifty-four autopsies, in only five of which pituitary hypertrophy was not found. This preponderance in this list which I have collected, and which I believe is the most extensive hitherto published, is also confirmed by the experience of almost all other observers who have reported upon this phenomenon. For instance, Dana, in his paper already referred to, reports this condition in nine out of the eleven autopsies which he had been able to collect up to that date. Tamburini, in a recent article in the *Rivista sperimentale di freniatria,* reports twenty-four cases of acromegaly in which an autopsy was held, in which the pituitary body was found hypertrophied in seventeen; but, as no less than five of the cases in which it was not so found are rejected by him as extremely doubtful, and probably not cases of acromegaly at all, and in the other two the examination was made within six months after the first appearance of the symptoms of the disease, we are, I think, justified in excluding at least half of these seven for purposes of this comparison, which would give us seventeen out of twenty-one cases. In November, 1897, Percy Furnwall reported in the *British Medical Journal* thirty-four autopsies, in only three of which enlargement of the pituitary was not found.

The amount of this enlargement varies very considerably, but is always both striking and out of all proportion to the enlargements which take place in any other part of the body. The normal weight of the glands varies quite considerably in healthy individuals, but within comparatively narrow limits as compared with its enlargement in this disease. For instance, Dr. Boyce, in a careful study of the gland, based upon an examination and weighing of over a hundred cases, finds its normal weight to vary from 0.3 to 0.6 of a gramme, the average weight being 0.5 gramme. The smallest case of enlargement in which the weight is given is three grammes, and the largest reaches to no less than thirty-one grammes, so that the hypertrophy is an evident and striking one. In the great majority of cases, however, weight measurements are not given, and our estimate must be based upon either the measurements of the gland itself or upon those of the pituitary fossa. The normal size of this appears to vary more than that of the gland on account of the irregularity and indefiniteness of its anterior and lateral borders, the former being formed simply by the olivary body or roll, and the lateral boundaries by the anterior clinoid processes, which may vary somewhat in the degree of their divergence without any necessary relation to the size of the body which lies between them. Indeed, in some perfectly normal skulls these processes are so short and so divergent that there can hardly be said to be any bony lateral boundaries to the brim of the fossa at all. On the other hand, in other cases so great will be the forward projection of the dorsum sellæ and posterior clinoids that the fossa will assume the proportions of a transverse slit rather than its usually comparatively circular outline. However, this range is, like that of the pituitary body, within comparatively narrow limits, certainly as contrasted with its size in acromegalic skulls. It would vary from ten to fifteen millimetres in its antero-posterior, and from twelve to twenty millimetres in its transverse diameters, while its enlargement in the cases in which measurements are given would reach an average antero-posterior diameter of about twenty-five millimetres, and a transverse of about thirty-five. For instance, in Holsti's case, the measurement was 25 × 30 millimetres; in Hensot's, 30 × 42 millimetres; in Brigidi's 28 × 38 millimetres; in Heron's, 32 × 38 millimetres; in Dana's, 30 × 31 millimetres; in Lady Aama, 31 × 37.5 millimetres. These measurements will represent a fair average of all cases in which accurate measurements were given, those of Byrne, McGrath, and the "Kentucky giant" all coming within a few millimetres of these measurements. On the other hand, the cases in which the measurements are not given appear to have been considerably above this size, one of Marie's cases being described as "large enough to contain a tangerine orange," another of the size of a "hen's egg." In Taruffi's it was the size of a "small apple," so that it will readily be seen that in no case was the enlargement of the fossa much below double the normal average development, and in some cases its diameter appears to have been three and four times the normal. Thus it is obvious that not only is the situation of this enlargement as far removed as anything could be from the characteristic "acro" situation of the other overgrowths, but it is also utterly beyond all proportion to either the general body growth or any one of the other enlargements, which, as has been shown, are seldom more than, in the case of the stature, from fifteen to twenty per cent., and in the case of the local overgrowths from ten to forty per cent. above the normal size.

As to the occurrence of this enlargement in those cases in which autopsies were not held, nothing can, of course, positively be said, but we have strong corroborative evidence of it in the fact that in more than sixty per cent. of all these cases which had reached any distinct degree of development there were disturbances of vision or other pressure symptoms pointing to an enlargement in this neighborhood, and in practically all cases more or less "vertical" headache and sense of pressure.

Before proceeding to consider the somewhat more difficult question of the nature of the overgrowth in these cases, I would like briefly to call your attention to such scanty information as I have been able to gather together in regard to the condition of this body in the opposite body condition—namely, in that of dwarfism. Strange as it may seem, the number of dwarf skeletons preserved in museums in this country appears to be even smaller than that of giants, and a tolerably exhaustive study of the principal museums of our larger cities has only resulted in the discovery of four skeletons of dwarfs, three of whom were obviously and confessedly rhachitic, and one was a dwarf from the purely mechanical reason of a frightful spinal curvature, evidently due to tubercular caries. My attempt to study living dwarfs has been almost equally peculiar in its results, as out of a total of six specimens, upon only two of which I had any opportunities at all for a careful study, two were obviously rhachitic, three the victims of hereditary syphilis, as plainly shown in their teeth, noses, and cornea, and one a cretin. So that from my own altogether too limited personal experience, I am decidedly impelled to doubt whether the "normal dwarf" exists any more frequently than the "normal giant." A professional friend of mine, who has made some study of this same subject in the European collections, has come to nearly the same conclusion, and informs me that the vast majority of dwarfs whose skeletons are preserved are either rhachitic or cretinous, and that he has never yet succeeded in discovering a skeleton of a dwarf which could be in any sense regarded as normal. I append the measurements which I was kindly permitted to make of two dwarfs, one of them preserved in the Mütter Museum in Philadelphia, and the other in that of the Medical Department of the University of Pennsylvania. In both of these the proportions of the lower part of the face are distinctly diminished in comparison with the cranial development. The proportion of the lower limb in No. 1 is barely forty per cent. of the entire height instead of over fifty per cent., as it should be. In the second case it is about forty-two per cent., while the length of the trunk in both cases is, considering the extremely short stature, extraordinarily near to that of the average individual. Not only this, but, as will be instantly noted upon examination of the inclosed print (kindly given me by the curator, Dr. Hinsdale, to

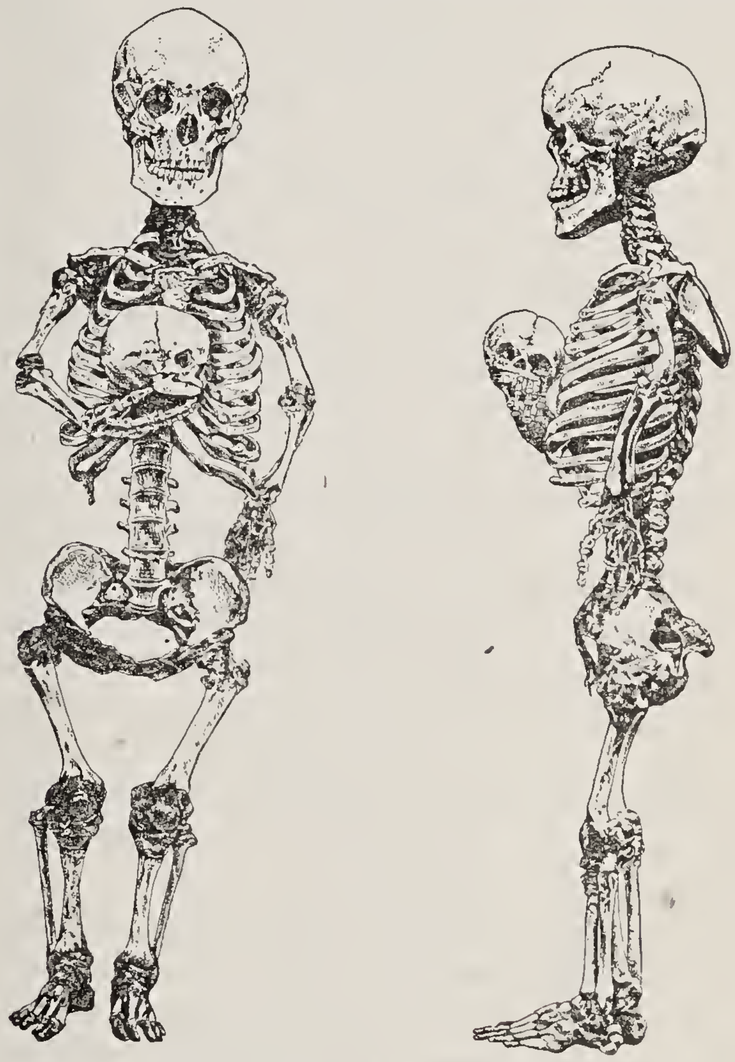

FIG. 14.—Skeleton of rhachitic dwarf, with skull of infant whose attempted parturition caused her death (Mütter Museum).

whose courtesy I am indebted for many valued privileges) of the skeleton of one of these, the positions of the greatest shortening in this skeleton are precisely those of the greatest amount of enlargement in the acromegalic skeletons—in the hands and feet, and at the growth lines of the bones of the extremities. In fact, the more carefully one compares the skeleton of the rhachitic dwarf with that of the acromegalic giant, the more forcibly is one impressed with the truth of Klebs's statement that giantism and dwarfism are both diseases arising from similar disturbances in growth, and analogous to acromegaly; in fact, that the giant is the result of an excess of growth processes in certain special situations, while the dwarf is the result of a diminution even of the normal degree of this growth-tendency, expressing itself in precisely similar situations. I have also had the opportunity of examining the skulls of three cretins in the celebrated Hyrtl Collection in the Mütter Museum, the measurements of which I append; and although, unfortunately, we have no record of their stature, yet in two out of the three there was a most striking diminution in the size of the pituitary fossa, although, as will be seen, the cranial development of the skull was quite close to the average. In the one case its dimensions were only four millimetres from before backward, by eleven from side to side—a mere transverse slit. In the other, its dimensions were eight millimetres from before backward, by nine from side to side, which must be compared with the average diameters of twelve by fifteen millimetres. In the third skull the proportions were more nearly normal, though distinctly below the average measurements, being nine millimetres from before backward, by twelve from side to side. The arches of the maxillæ, however, appeared upon measurement to be nearly normal, although the decided impression made upon the eye by a profile view of the skull was that they were not developed in the same proportion as the cranial part of the skull.

In this connection it is of great interest that Virchow, nearly forty years ago, in his classic work upon *Die Entwickelung des Schädelgrundes* figures the longitudinal section of three cretin skulls, in two of which the pituitary fossa is reduced to little more than a deep, narrow, transverse slit, in the one case overhung by the forward-curving posterior wall (dorsum sellæ), and he speaks of a singular shortening (*Verkrümmung*) of the skull base, attended by what he terms "sphenoidal kyphosis," as characteristic of the cretin skull.

We are now prepared to study the nature of the overgrowth in those cases of acromegaly in which a microscopic examination was made of the gland. In the first place, the almost universal testimony of all who have made even naked-eye examination of the gland is that the hypertrophy is chiefly confined to the anterior or buccal lobe of the body, the true glandular portion. In most of the cases in which any statement as to the nature of this growth is made which is not followed by microscopic examination, the assertion is that it appears to be a "genuine hypertrophy" of the gland substance proper, with a somewhat thickened capsule. This hypertrophy usually maintains a shape and formation quite similar to that of the normal gland, although it is frequently lobulated, usually in transverse folds in its lower and anterior portions. As we shall see, the reports of the microscopic findings vary somewhat in the terms which they apply to the growth, but we think that with the assistance of the specimens which we are prepared to present, nearly all of these can be grouped under one heading. The first question which of course suggested itself to investigators of this subject was as to whether the pituitary body might not simply be the site of some morbid neoplastic formation, either tuberculous, gummatous, or malignant. But this question may be practically regarded as set at rest, inasmuch as in no case of accredited acromegaly has the overgrowth presented any of the distinctive features of any of these formations, with the exception, as we shall see, of sarcoma. Further than this, we have now upon record no less than five cases of carcinoma of the gland reported by various observers, in which no acromegalic symptoms whatever were present, unless headache, disturbances of vision, and other local pressure symptoms could be so regarded. Woollcombe has also reported (*British Medical Journal*, June, 1894) a case of Virchow's psammoma of this body, in which only the local pressure symptoms were present. Cecil Beadles (in the same journal, December, 1896) has reported three cases of enlargement of this body, one tubercular and two gummatous, no one of which presented any acromegalic symptoms whatever. Bury has also reported three cases of apparent fibroma of this body with again no characteristic symptoms. So we have already a total of twelve cases of tumor formation in this body without the production of a single true acromegalic symptom, and, on the other hand, we have only two cases of even apparently normal or true hypertrophy of this body (those of Packard and Wills) in which no such symptoms resulted.

(*To be concluded.*)

THE PREVENTION OF COLDS.

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CIVILIZED man, physically speaking, is a degenerate compared with his barbarian prototype, and, because of this degeneration, is heir to a thousand ills unknown to the "child of Nature."

The hothouse plant, though beautifully and gracefully developed, will fade and die at the first touch of frost; the hardier wild flower of the same species will bloom on unhindered in its growth by the conditions which bring death to the other.

As the child is bent, so inclines the adult, and the developed nation, mentally and physically, shows what its childhood has been.

A perfect body is not necessary for a brilliant mind, but, other things being equal, the mind will develop more rapidly in the fertile soil of health than in the corrupted earth of invalidism or diminished vitality.

The dependence of the mind upon the body is not shown in the development alone, but also in the length of time during which the mental faculties retain their full power and vigor.

Bismarck, at seventy-five, ruled Germany; Gladstone, at eighty-two, was a power in Great Britain; Thiers, at eighty, governed France; and Gortschakoff, at eighty-one, was the master mind of Russia.

All these men were devotees of exercise and hygienic lives; and had it been otherwise, could they have retained so long their splendid minds and vigorous bodies?

The importance of bodily vigor to a strong mental and moral life is shown by study of the nations of the world, modern and ancient as well.

Rome, in the days of her supremacy and glory, was a nation of athletes. When she fell a victim to effeminate luxuriousness and love of ease, she degenerated not in physical power alone, but in all her higher mental and moral attributes.

What is true of Rome is true of Athens, Sparta, and all the old and new centres of civilization.

The decadence of nations, like that of individuals, ever begins with the neglect of physical culture.

By a perfect manhood or womanhood, a huge frame or athletic carriage is not implied, but rather that strength and vigor which come from and bring perfect health.

With a proper conception of the hygiene of the body and a conscientious application of these proved theories, a marvelous metamorphosis is possible.

To-day it is stated upon the best of authority that one third of humanity is afflicted with tuberculosis, and that one seventh of all men die of it—startling figures, if true.

Much of this originates because of the weakening of our natural powers of resistance, brought about by improper living. This weakening of the system is shown by the almost universal susceptibility to colds, the existence of which the self-respecting man should be ashamed to acknowledge.

Upon the constant recurrence of colds depends the existence of a great number of those diseases, especially of the respiratory tract, which bring so many to a premature end.

Thus the question may well be asked, "How can we so harden our bodies that colds will be unknown, and what are the prospects of gaining complete immunity?"

Any individual under sixty years of age, be his health what it may, can so increase his powers of resistance that he can pass almost, if not entirely, unscathed through exposures that would have previously caused a severe cold with all its attendant and subsequent evils. The final results are especially gratifying when this hygienic life has been enforced from the days of early infancy, but much can be gained at any age. The older and more feeble the subject, the longer are we in arriving at the ultimate point, which, for the aged invalid, can never be one of complete immunity. In the young and vigorous, complete freedom from colds may be attained after varying periods of time, the duration depending upon previous habits of life.

For those over sixty much can be done, but the system must be greatly modified and extreme care exercised at all times.

The American people, as a whole, owing to incorrect heating of the houses, improper methods of dressing, eating, sleeping, bathing, working, and exercising, are peculiarly subject to this condition—*i. e.*, cold-taking, with all its deplorable possibilities.

To the Indian of earlier days this trouble was almost unknown; now, thanks to the onward march of civilization, he is more susceptible than his conqueror.

A premier of Canada, while watching the ice sports at Montreal one wild winter day, saw an almost naked Indian standing on the ice, seemingly oblivious to the bitter cold and cutting wind. Upon asking him how it happened that he did not suffer from the cold, the Indian asked, "Your face cold?" The premier replied that his face did not suffer from the cold because he had never been accustomed to protecting it in any way. "Well," said the Indian, "me all face."

As the skin of the face, primarily, does not differ from that of the remainder of the body, this answer shows what changes can be wrought in the body by common-sense treatment of it.

"Me all face" might well be taken as a motto by all those who desire to so harden their bodies (by bathing, exercising, and proper living) that they need not fear longer the dangers of draughts, wetting, and unusual exposures to sudden extremes of temperature.

The Spartans evolved a race of men whose physical development was perhaps never before or since equaled in a civilized community. Much of this was due to the practice of putting to death all weak and invalid children, and permitting the healthy women alone to marry; but much was due to the system of training which the state imposed upon all from the cradle to adult life.

The Tierra del Fuegans, who of all the people of the world live nearest to the heart of Nature, are singularly free from all communicable and transmissible diseases, and so it is with all primitive people. The Frenchman of to-day, despite his many pernicious habits, is less liable to fall a victim to diseases of the respiratory tract than any of his immediate neighbors, simply because he is accustomed to an out-of-door life at all seasons of the year and has an inborn horror of an overheated house.

He lives comfortably in a room of sixty degrees, and will sit before the café and read his paper when the temperature is at the freezing point. According to Morris Schmidt, the French, as a nation, stand the rigors of an arctic winter better than the natives of many more northern countries.

Severe as is the climate of Russia, the natives suffer less from throat troubles than the people of many a more favored clime. This is because they do not wear excessive clothing indoors, nor wrap up the throat and apply a chest protector at each change in the weather. "No protection (of the chest and throat) is the best protection." How often do we see rugged old men who have never known a day's sickness, who have never known the meaning of the words underclothing and overcoats, and who will drive mile after mile in the bitterest cold without suffering the slightest discomfort!

All these things point to the goal that the great majority may reach. Is it worth striving for, and, if so, what are the means to be employed?

The chief physical crimes of modern civilization are overdressing and incorrect dressing; overheating of the home; overestimulation; and criminal neglect of recreation, the bath, and exercise.

Correct these and their accompanying evils, and a new race of men and women will arise—a race to whom a great number of the diseases of to-day will be only as memories.

As before stated, the best time for the inauguration of these common-sense rules of life is during the first weeks of infancy, and they should be continued from that time until the close of life.

Therefore, we will first discuss those precedures adapted to the period of infancy, then those for childhood, the weakened adult, and, last of all, the more vigorous methods used by the normal adult.

Of vital importance to the welfare of the child is the hygiene of the prospective mother, and this should never be neglected. Many a child is foreordained to a wretched existence because of the criminal negligence and selfishness of the mother.

A careful diet, loose warm clothing, daily exercise in the open air (omitted in the later months of gestation by most women because of a sense of false modesty), daily bathing in lukewarm water, and mental entertainment are the chief requisites.

The Infant.—During the first twelve weeks of life the infant should be given a daily immersion bath at 95° in a warm room well protected from draughts. At the end of this time the temperature of the water is to be gradually lowered, great care being exercised to avoid a too rapid change and chilling during or immediately succeeding the bath. For the next twelve weeks the immersion bath should be at 93° F., followed by a sponge with water of 90° F. These baths should always be given in a warm room (a very hot one is not desirable), and immediately followed by brisk rubbing of the entire body with a soft towel.

At the end of the first twenty-four weeks it is well to impregnate the water with sea salt on account of its invigorating properties. At the end of the sixth month the immersion bath is reduced to 90° F., and the after-sponging with water at 88° F. These temperatures are maintained until the infant is one year old, when a further reduction (gradually accomplished) of five degrees in the immersion bath and eight in the sponging water is to be effected. Below these points—85° and 80° F.—we should not go until the beginning of the third year, when the gradual reduction is continued until the fifth year, when the immersion bath at 80° and sponging at 75° F. will not occasion any discomfort.

	Immersion.	Sponge.
One to twelve weeks	95	..
Twelve to twenty-four weeks	93	90
Six to twelve months	90	88
Twelve to eighteen months	88	86
Eighteen to twenty-four months	87	83
Twenty-four to thirty-six months	85	80
Three to four years	83	78
Four to ten years	80	75

These cold baths will soon become very agreeable, for the hot bath is more pleasant than the cold only when through constant usage, to the exclusion of the cold, the body is accustomed to it. Let the cold bath become an everyday procedure, and it will be equally pleasant, if not more so, than the hot.

From time immemorial we have been told that cold baths are injurious in infancy and childhood; but after witnessing their effects in a great number of cases, I am firmly convinced that, when they are given in an intelligent way, they are of great value, and some day will be considered an absolutely necessary part of the *régime* of infancy.

Neither are they applicable to the strong and healthy alone, but they may be commenced at any period of infancy, be the health what it may, excepting, of course, those rare cases in which a bath of any kind is contraindicated.

Under the influence of the bath *régime* alone the most gratifying results are seen. A weak, irritable infant will wax vigorous, rosy, and full of life and beauty; the normal healthy one will grow stronger, sleep and appetite will improve, and in place of irritability and fretfulness there will be perfect rest and contentment.

As an answer to those who say the method is dangerous and that the delicate organization of the infant will not stand cold, we have the example of the primitive mothers, who, immediately upon the birth of the child, would bathe it in the nearest body of water, wrap it in its blanket, and place it upon the ground to sleep. This practice can be seen to-day in many parts of the world. Moreover, in this very slow and gradual reduction of the temperature chilling is never produced, and the child is thoroughly accustomed to the one temperature before it reaches the next lower grade.

This system of bathing will recall many a child from the grave, and the robust constitution gained will enable it to combat, with greatly increased chances of success, the various diseases to which infancy is subject.

As the face is treated, so treat the entire body, and in time the little one will be almost "all face."

With the beginning of the baths gentle exercises should be inaugurated and continued until the dawn of childhood, at which time new and distinct movements are substituted.

At the second or third week daily massage of the entire body, immediately after the bath, and consisting of a thorough rubbing and kneading with oil, should be given.

J. Madison Taylor, of Philadelphia, in speaking of the results obtained by massage of infants, says: "Improvement was almost invariably gratifying, and at times brilliant, even when no ailment existed, but was especially noted in those below par. The beneficial effect was first observed in the skin, which softened notably, becoming clarified and rosy tinted; then fretfulness ceased and sleep came more amply, the bowel action fell back into normal sequences, and presently the muscles grew firm and strong."

The massage is to be supplemented by other light movements, such as flexing and extending the arms and legs, tumbling, etc.

The baby of Coach Stagg, of Chicago University, is a notable example of the results that may be attained in the physical development of the very young.

At four weeks of age regular training was commenced (under the most careful supervision) and regularly continued, until at seven months this precocious infant is a marvel of strength and development. Simple movements of the arms and legs constituted the first week of training, followed by light massage and movements of the entire body. Since the second month he has been able, with slight assistance, to stand on his head and turn somersaults. At three he could walk with the aid of a guiding hand, and, more wonderful yet, raise himself from a sitting posture to his feet simply by using the legs—a feat many adults can not accomplish.

Hanging from a trapeze and raising the body from a horizontal to a sitting position without using the arms were acquirements at seven months.

While such a degree of muscular development at this early age would be in the great majority of cases highly pernicious, it is not worse than the other extreme to which nearly all parents go. Both should be carefully avoided, but in all cases a happy mean ought to be reached and maintained.

A valuable adjunct to the exercise is the proper dressing: one that will at the same time provide sufficient warmth, allow of unrestricted movement, and do away with all dragging and compression.

Long skirts are a barbarity and can not be sufficiently condemned; until the fourth week they may be sufficiently long to well cover the feet, but after that time they should not fall below the ankles. Dressed in this way the little one is able to move about as it desires, which is of great importance, for it is as harmful for the child to be constantly tied up in this outrageous fashion as it would be for an adult.

"Infants and young children have little power of resisting cold," is an excuse we constantly hear given for enveloping them in long skirts, parboiling them in hot baths, and confining them for years in a hothouse."

This is true of a child raised in this way, but treat it in a rational manner and it will be able to resist cold.

The bake-oven home for the child, and the adult as well, is most reprehensible, and should be absolutely abolished, and the normal temperature, 68° to 70° F., maintained. A little later a still lower temperature, 62° to 64° F., is preferable.

Baths, exercise, and proper clothing will accomplish little if the vitality is sapped by the weakening influence of an overheated room. This holds true of the sleeping as well as of the living apartments. The tendency "to take cold," and especially the disposition toward the acquirement of the infectious diseases, is considerably augmented by living in too warm an atmosphere. Krieger has shown that diphtheria is decidedly more prevalent in those accustomed to a residence in a warm than in a cool atmosphere.

Every day the infant should be taken into the open air and kept there as long as possible. During the first few years of life it may be kept indoors in very stormy weather, but after this time there should never be such a word as "bad weather."

An out-of-door existence is the most important consideration of all, and without it all the other methods for developing a sound body must fail. The baths and other procedures merely prepare the body for the varying degrees of temperature to which it will be subjected. As well try to learn swimming without entering the water, as to try to harden the body by bathing and then remaining indoors. Neither can one grow strong by exercising fifteen minutes daily and remaining in bed for the balance of the twenty-four hours.

After a course of cool bathing, daily exercising, and moderate heating of the living and sleeping rooms, it will be found that the little one can be taken out in any kind of weather without the least harm resulting. In a short time almost complete immunity from colds will have been gained.

Especially should this rule hold good when the child has once learned to walk. Then it must be allowed to romp to its heart's content, fair weather or foul. If at this time a cold is taken, do not confine it to the house, but permit it to play outdoors as usual. Recovery will be all the more rapid, and at the same time strength will be gained to combat a possible recurrence.

"Colds" may be placed in the same category as tuberculosis, for which the fresh-air treatment is recognized as the method *par excellence*. In this disease, no matter how debilitated the patient may be, he is kept in the open air from early morn till late evening, let the atmospheric conditions be what they may. Even though the temperature be at zero or lower, this rule is adhered to, and all day he remains in his reclining chair, well covered, and occasionally warmed by some hot nutritious drink.

Even in the most advanced cases it is but a short time, in the vast majority of instances, before some improvement is noted and the treatment becomes an agreeable one.

If so much can be gained in advanced cases of consumption, what may we not accomplish by applying the same principles to the normal adult or child?

Light, and especially sunlight, exercises a beneficial influence in maintaining the general standard of health. Murrell writes: "The Italians have a proverb to the effect that where the sun does not enter the doctor does; while among the Indians there is a saying that 'he who plants a tree in front of his dwelling begins to dig his own grave.'" Elaborate experiments have shown that light is always inimical to, and under favorable circumstances may wholly prevent, the development of bacteria and organisms associated with putrefaction and decay. All observers testify to the value of sunlight in the treatment of consumption, and Dr. Pollock points to the curious observation that "a freckled child is rarely consumptive."

At the dawning of childhood two other words must be stricken from the lexicon: "neck cloth" and "chest protector."

The custom of enveloping the throat in a muffler during every season of bad weather is a most pernicious one, and leads to more diseases of the throat than almost any other procedure. The same is true of adults, and among women the boa has more victims to its credit than any other article worn with an idea of combined protection and adornment. What has been said of the muffler and throat diseases can be said with equal truth of the chest protector and diseases of the chest. The "protector" protects the physician from penury, and that is all. In a long period of years, over seventy per cent. of all cases at the throat and chest clinic of Schmidt, in Frankfort, had been accustomed to the use of these disease producers.

His first question of a new patient was, "How long have you worn a chest protector?"

The reason for this heightened susceptibility of these people is seen when the skin under the protector is examined. It is softened, and nearly always bathed in perspiration, so that when the covering is removed, rapid evaporation results with all its dangerous possibilities. The boa is especially bad, for by its great warmth it promotes free perspiration, which it can not absorb even in the slightest degree. The sailor, with his low-cut shirt and bare neck, offers a striking example of the immunity conferred by constant exposure. In the early days of his life he is often subject to catarrhal trouble, but after constant exposure in all kinds of weather it disappears, and he remains free thereafter.

The clothing at all ages should be the same for all seasons of the year, or with, perhaps, a very slight diminution in the hot months of midsummer, although this is unnecessary if one dresses properly in the winter. It is the overwraps alone upon which we must depend for protection, and which should be frequently changed. If the home is kept at an even temperature at all seasons of the year, as it should be, one weight of clothing will suffice for both summer and winter. If during the cold months the weight of the clothing is increased, one easily becomes overheated in a warm room, and then sufficient protection is not afforded when again in the open air. This is a very common cause of colds.

Better far one suit of light underwear and one light oversuit or dress and three overcoats of different weights than six undersuits and one wrap. In this way the extra amount of clothing required may always be had without danger of overheating, provided the wraps are removed immediately upon entering the house.

As already stated, the underclothing should always be light in weight and extremely loose. If worn loose, the thinness of the garment will be more than balanced by the extra warmth afforded. The layer of air between the cloth and skin becomes warmed, and this of itself offers greater protection against cold than would many extra layers of the material.

The underclothing is best when made of silk, but, unfortunately, the price places it beyond the reach of the great majority. Weight for weight, it is four times as warm as wool, and possesses equal absorptive and heat-conductive powers.

Next to silk, wool ranks as the best material for the undergarments. It is a poor heat conductor, absorbs moisture freely, and evaporation is slow, thus reducing to a minimum the danger of too rapid evaporation with chilling.

Compared with cotton, linen is valuable, although it is greatly inferior to wool. It is a better heat conductor than cotton, but its absorptive powers are greater and it yields its moisture with much less rapidity.

The thickness and texture of the goods have little to do with protection against heat, but the color influences the absorption of solar rays more than any other consideration.

Direct rays of the sun are but slightly absorbed by white goods; next in efficiency comes gray, then yellow, pink, blue, and mixtures of the colors. Black is the most absorbent of all.

With regard to the absorption of odors the same may be said, the relation being the same as in the absorption of heat rays.

If the child commencing life in this way continues its physical culture until adolescence, the numberless ills from which we all suffer will be to him almost unknown, and he will pass unscathed through storms and troubles that will lay low his hothouse neighbor. Neither will he be so liable to acquire the greater diseases, and, if taken, they will be much more readily overcome.

But more than all this will be the constant joy of life that comes to all those with a full consciousness of perfect health and strength.

The Child.—The rules governing the life of the child from six years to the age of puberty differ but little from those for the infant. It is chiefly a difference of degree.

The baths are to be gradually reduced to 75° or 70° F.; the child must be permitted to romp all it desires, and some regular, scientific home gymnastics added to its curriculum.

But one general point, aside from those already given, merits special attention. At what age should the child be permitted to enter school? Under no condition should it be permitted to do so until its physical condition warrants, whether that age be reached at five or twenty-five. With unscientific seats, bad lighting, and worse ventilation, such as the great majority of all schools have, the child with insufficient strength and an undeveloped body may soon lay the foundations of a lifelong trouble.

Let it be at liberty until well and strong, and it will soon pass in its work the point at which it would have been had it commenced the battle insufficiently prepared in bodily vigor.

Even though the child be strong and well, long hours of study should be avoided in these early days. When school is out, the place for the young scholar is in the open air.

With the change from girlhood to womanhood there arises an important question in regard to her dressing, upon the correct answer of which will depend in a great measure her lifelong happiness and comfort. The corset has been constantly and severely criticised, and most justly so. To detail all its harmful effects would exceed the limits and purport of this paper, and, indeed, they are sufficiently recognized by every well-informed person. Why, then, do women persist in disfiguring themselves in this way when the results are so pernicious? Simply because they are as great slaves to fashion and a false idea of comeliness as is the African woman who wears a ring in her nose, and the Chinese woman who has her feet broken in order that they may remain small.

If such a thought is suggested, she will say that the corset does increase the beauty of the figure and that it adds to the comfort. The figures of the Venus de Milo and Venus de Medici are considered the most perfect ever devised, and any woman will blush with pleasure if told that her figure resembles them; at the same time she would blush with shame were she to look in a glass and see reflected there the waist of the Venus. They admire the perfect in art and the deformed in Nature.

How any one who admires the beauty of these figures can see any beauty and charm in the constricted waist of to-day, passes comprehension.

Misshapen women may be improved by the corset, but no such device can improve the wholesome beauty of the normal woman. All her clothing should be suspended from the shoulder, for the abnormal weight and the pressure exerted when they are attached to the waist interferes with the normal development. This can readily be seen when we compare the bodies of women who dress according to our standards with those who do not dress at all or in a simpler way. All these objections apply to the circular garter as well; the same local conditions are induced by both the corset and the garter. A common fallacy among women is the belief that tight lacing will produce small abdomens and stop the deposition of fat. In Coplin and Bevan we read: 'When tight lacing is used to secure the reduction of obesity, the obesity increases in direct proportion to the degree of lacing which is resorted to."

At the beginning of puberty the girl should be carefully instructed as to the full meaning of her catamenia, and the hygienic rules to be observed during these times, for upon their proper observance may depend the entire usefulness of her future life. The failure of a mother to so instruct her is more than neglect—it is a crime.

All these questions have a strong bearing upon the development of diseases of the respiratory tract, in that freedom from these diseases depends upon the possession of a healthy body, and anything which diminishes the normal resistance increases the liability to these conditions.

A child raised in this way will need no persuasion to induce it to so continue throughout life; the rules will be persevered in because of the exhilaration they bring, without consideration of utility.

In view of the manifest advantages gained by the use of the cold bath and the great superiority of the "hardened" individual, it is difficult to understand why the great majority prefer to remain as they are: probably because to the non-hardened individual the warm bath is much more agreeable than the cold; if so, it is only a question of habit, for after the cold has been used for some time it ceases to be unpleasant.

Every person under sixty years can be hardened with comparative ease; with those past this age great care must be exercised.

With the aged, nothing more than dry or alcohol rubs can be used in the beginning. When possible, these individuals should be sent South for the first couple of winters, for there, with little care, he can pass nearly every hour of the day in the open air.

When very weak, such patients must be kept indoors during the coldest part of the winter. How much better it is when previous training has rendered such steps unnecessary!

With such weakened individuals it would manifestly be extremely foolish to begin at once with a course of cold bathing.

With them we can begin with dry rubbing of the body for two or three minutes at a time twice daily. If they show a tendency toward morning to perspire, they should be rubbed dry, in bed, before rising. In a few days it will be seen that the redness of the skin will come more promptly and with less effort. When this has occurred, the rubbings can be supplemented by rapid use of alcohol, the application to be followed by an additional half minute's friction.

When this has been kept up for from two to ten weeks, according to the age and degree of physical weakness, the alcohol can be done away with and salt water substituted. The temperature of this should be gradually reduced. After six weeks the sitz bath can be called into use and the water applied by means of a large sponge. Occasionally it happens that the bath given in this way causes violent shivering; if so, each part of the body must be separately bathed and covered before the next is washed.

In the majority of cases it will be one or two years before such a softened individual will be so far advanced that he can stand, unharmed, exposures to rapidly varying degrees of temperature.

If the individual is strong enough, sea bathing is a most agreeable way of hardening. Ordinarily, the bather remains far too long in the water and thus defeats his purpose; too frequent and too prolonged bathing is worse than under-indulgence.

An English rule of great value is, "Dive three times and out." One should stay in the water only till the first reaction comes, usually in two to three minutes.

After the bath there should be some light exercise taken for a few moments.

Vigorous exercise before the bath is valuable, and it is at this time that it should always be taken. Hare says: "The use of the cold bath after a person becomes heated is popularly supposed to be dangerous, but, on the contrary, there is nothing so refreshing and invigorating and so efficacious in preventing muscular stiffness and soreness after severe exercise. A cold plunge or a shower bath is all that is permissible. The first effect of cold is to drive the blood into the warm recesses of the body, leaving the surface cold; in a few moments increased heat production, brought about by the increased demand, warms this blood and forces it to all parts of the body, when a sense of exhilaration and warmth is experienced. It is at this stage that the bath should end, and thus the stimulus will remain throughout the day. If this stage passes, the first stage will recur in an exaggerated degree." Long baths are the most frequent cause of the complaint that one feels worse after than before taking.

With the normal adult "hardening" is a simple process, and one that brings prompt and brilliant results. He may at once begin with the methods previously outlined, and when the body has once become accustomed to the new conditions, nothing could induce such a one to discontinue—the strongest possible proof of its power for good.

Let these methods be followed by all, and the physician's sphere of usefulness will be greatly narrowed.

VANDEVORT BLOCK.

SYPHILIS OF THE BRAIN.

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(Concluded from page 52.)

DIAGNOSIS.*—Syphilis of the brain may exist under one or two conditions: one, which by the most careful and repeated examinations no positive evidence of organic brain trouble can be detected, although it may be suspected; the other is one in which positive symptoms of organic disease are not lacking.

Headache is a common symptom of direct and reflex brain disturbances. The question may be asked, Does syphilis in the tertiary stage ever give rise to headache in the absence of intracranial syphilis, or in the absence of the syphilitic virus in the blood? Directly, I do not see how this is possible; indirectly, from the impoverished state of the blood resulting from syphilis, it seems quite probable. But such a headache could not, so far as I can conceive, differ from headache due to anæmia in general.

Besides the functional or anæmic headache which may occur as the indirect result of syphilis, especially in its tertiary stage, we may have headache either in the secondary or tertiary stages of the disease, apparently caused by the virus of syphilis in the blood. In such cases there is no organic change, so far as we are able to determine, and the readiness with which the headache disappears under antisyphilitic treatment points to the non-existence of an organic cause for the head pain.

We may have, however, headache due directly to syphilis of the brain resulting in organic changes, but we may be unable to detect any positive evidence of the organic trouble. How, then, are we to distinguish between such a headache and one functional in character? In the first place, headache due to syphilis with organic changes within the cranium is usually worse during the latter part of the day and in the evening than it is in the morning. This is not because the cause is syphilitic in character, but because it is due to organic changes within the cranium and attended by inflammation, or, at least, to irritation of the intracranial structures. The headache due to nearly all organic changes resulting in inflammation is worse during that diurnal period when the circulation is the most active. I have studied the headache of persons suffering from brain tumors, both syphilitic and non-syphilitic, and have found them both equally influenced by the diurnal changes, the syphilitic apparently not to a greater degree than the non-syphilitic form. Unfortunately, many physicians seem to think, since the intracranial lesion is due to syphilis, the increased severity of the headache during the latter part of the day is because the lesion is syphilitic and not because it is inflammatory or irritative in character.

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* The Justus blood test for syphilis often fails in latent syphilis, in early chancre, and sometimes at the beginning of the secondary stage.

Occasionally we meet with headaches due to the indirect effects of syphilis that do not seem to be much influenced by the diurnal changes. These cases are probably unattended by any active brain changes. I have met with cases of syphilis of the brain in which the headache, or rather unpleasant intracranial sensations, were worse in the early morning, but these cases were in persons suffering from advanced changes in the cerebral arteries, and who were also anæmic. The cephalic disturbances in such cases are naturally most pronounced during that part of the day when the cerebral circulation is least active.* I have no doubt that we all have met with such a condition in persons of advanced years, with atheroma of the cerebral arteries, and suffering from insomnia and unpleasant cephalic sensations, to whom a small dose of morphine or codeine administered at bedtime is a sufficient stimulant to induce sleep and a restful night.

In the second place, in headache due to syphilis, the organic change is often inflammation of the meninges, and in consequence the pain is very severe and almost constant, and in cases in which the dura of the vault is inflamed there is usually tenderness on pressure.

It is in these cases that the therapeutic test is of inestimable value and soon sets matters at rest.

Disturbances of sleep may be due to syphilis in cases in which no positive evidences of organic brain changes can be detected. Insomnia is often one of the earliest symptoms of intracranial syphilis. It is usually attended by headache of the character due to organic brain trouble. It is not, however, a very frequent symptom of intracranial syphilis. Somnolency need not be discussed in this connection, because when this occurs from syphilis of the brain evidences of organic brain trouble are rarely wanting.

There are many other conditions which might receive attention in this connection, but I shall pass on to the *differential diagnosis* between syphilis of the brain and other organic intracranial diseases. We can not exercise too much caution in arriving at conclusions in respect to diagnosis. We should constantly bear in mind that upon the thoroughness of our diagnosis depends our skill in prognosis and treatment. The history of the patient, his habits, his hereditary tendencies, the character of the early symptoms, their onset, the chronological order of their development, and their subsequent progress should all be studied, analyzed, and compared with the greatest care. In searching for a source of infection we should lay more stress upon the character of certain skin eruptions, the history of iritis, ulcers in the mouth or throat, and upon the presence of nodes than we should upon scars upon the external genitalia. Mickle states that scars upon the genitals are more likely to be due to non-infecting sores than to specific ones. The absence of the secondary manifestations of syphilis in persons who have suffered from a chancre is in favor of the nervous system suffering in the tertiary state, if this is ever reached. The absence of the history of a chancre in persons who have indulged in indiscriminate sexual intercourse should not influence us much in excluding infection. We should never forget that because a patient has had syphilis the subsequent development of brain trouble by no means necessarily implies that it must be due to syphilis.

After we have made the diagnosis of organic brain trouble, we should endeavor to locate it. The most common sites of intracranial tumors of syphilitic origin are the base of the brain, in the interpeduncular space or in the neighborhood of the optic chiasm; on the convex surface over the motor region, occasionally in the pons, rarely in the substance of the brain, and with great infrequency in the cerebellum. We should determine whether the lesion is a tumor, a meningitis, or whether it is vascular in character. If the patient is suffering from epilepsy, we should ascertain the age of the patient when the fits first appeared and their character, especially as to consciousness and the extent of the muscles involved during the attack. In hemiplegia the age of the patient is of great importance.

Syphilitic Growths.—Gowers states that "syphilomata always cause an acute form of optic neuritis, becoming intense." * H. C. Wood † takes issue with him here, and says that they do not. We may reconcile the statement of each by saying a rapidly growing syphiloma gives rise to acute optic neuritis, and that a slowly growing one may not. The important point to remember is that syphilomata are much more likely to develop rapidly than other forms of intracranial tumors. The most common seat of these tumors is at the base, in which situation they would be recognized by symptoms of meningeal irritation and various nerve-root symptoms. Tubercular growths may occur in the same place, but it is comparatively rare to find other growths similarly situated. The therapeutic test with proper precautions would be the best means by which to distinguish the syphilitic growth from the tubercular. When the gummata attack the cortex there is no reliable means by which we can distinguish them from the gliomata. Even the therapeutic test often fails us here.

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* We should not forget that some cases of tumors of the brain are attended with anæmia of portions of the brain.

* Sir William R. Gowers. *Syphilis and the Nervous System*, p. 66.

† H. C. Wood. *Syphilis of the Nervous System*, pp. 84, 85.

Chronic local syphilitic meningitis, when it attacks the base of the brain, causes nerve-root symptoms, especially ptosis, and, when the lesion is on the convex surface, cortical irritation, especially in the motor region, is common. The therapeutic test is our surest method of diagnosis.

It is of considerable importance to be able to determine the cause of hemiplegia or monoplegia. Before the forty-fifth year this is not, as a rule, nearly as difficult as it is after atheromatous degeneration of the vessels has taken place. A hemiplegia occurring before the age of forty-five in a patient in whom there is no renal or cardiac trouble, nor a blood state likely to form emboli, is, in all probability, due to thrombotic occlusion of a vessel. Diseases of the walls of a cerebral vessel before the forty-fifth year to such an extent as to lead to occlusion of its calibre is tantamont to the diagnosis of syphilis. Complete loss of consciousness from thrombotic occlusion of a vessel is rare unless the resulting symptom, such as complete facial paralysis of one entire side, is very pronounced. The therapeutic test in these cases is of little avail. In most cases of hemiplegia of syphilitic origin aphasia is present for a time, even in left-sided hemiplegia.

Epilepsy occurring after the thirtieth year, not due to traumatism, exposure to the sun's rays, or to poisons, is probably the result of syphilis or some other intracranial growth. If the convulsions are Jacksonian in character, cortical irritation is quite positive, and most likely caused by syphilis.

I shall not attempt to discuss the diagnosis of the different forms of insanity thought to be due to syphilis.

Prognosis.—Mickle gives the general prognosis as follows: One fourth recover; one fourth improve greatly; one half die or exist with grave brain lesions. He states that the prognosis is worse if the patient is over forty years of age when brain symptoms develop. He gives Hjelmmann as authority for the statement that the prognosis is worse if the development of the brain symptoms is delayed beyond ten years after the initial lesion. He says the most favorable forms are brain irritation, epilepsy, and cranial-nerve affections. He states that limb paralysis is less favorable, and that severe and diffuse symptoms give the gravest prognosis.* The prognosis must be studied in each individual case. It is only by studying the probable character of the lesion in the light of its direct and remote effect upon the structure and function of the brain that we can arrive at anything like an approximately definite conclusion. In all cases of brain syphilis the prognosis is better the earlier antisyphilitic treatment is instituted. The lesion that gives the gravest prognosis when well advanced—syphilitic arteritis—is the most amenable to treatment if this is instituted early. There is no condition more hopeless than pronounced dementia from advanced and diffused syphilitic arteritis. Gummata of the brain, if recognized early and treated most energetically, yield quite readily. If these have existed for some time a complete cure can not be effected, although the gummatous material may be all removed; yet the scar tissue, consisting of the results of caseous and fibroid degeneration, and the injury to the brain from pressure, will be left. These are not specific lesions, and will not yield to antisyphilitic treatment. The damage done to the brain by the presence of the specific deposits can not be cured by specific treatment. Likewise, the clot that has occluded a vessel and the necrosis following the occlusion will not yield to specifics. In a few words, all the effects of specific lesions of the brain, including the degeneration, among which may be mentioned nuclear degenerations of the cranial nerves, giving rise to ophthalmoplegia, are non-specific, and will not respond to antisyphilitic medication.

Treatment.—The more I see of syphilis of the nervous system, and especially of the brain, the more am I convinced that its general management and treatment are more difficult and require greater care than one would infer from reading some of the articles on syphilis of the brain found in text-books and brochures. The manner of giving mercury or potassium iodide, or both, according to the time that has elapsed since the initial lesion, and of giving each to the point of toleration for prolonged periods, because the patient is suffering from supposed syphilis of the brain, regardless of the character of the lesion, as to whether it is specific or the result of syphilis, and therefore non-specific, I feel quite confident, to put it mildly, has done as much harm as good.

For convenience, the treatment might be subdivided into prevention, general management of the patient, and antisyphilitic medication.

If one and a half to two and a half per cent. of the infected suffer from syphilis of the brain after excluding the cases of paretic dementia—the tabes, according to Hjelmmann—and if from twelve per cent. to twenty-one per cent. of all who show tertiary symptoms of lues suffer from intracranial syphilis (Hjelmmann and Fournier), should we not attempt to lessen the ravages of this scourge? We find that by active treatment irritative lesions of syphilis may be absorbed and the disease itself held in abeyance for periods of greater or less length. As to just what the poison of syphilis is we are not in possession of positive information, but it seems fair to infer that the activity of the disease is due directly to developed micro-organisms. These can be killed by treatment, and any micro-organisms in the process of development would probably also be destroyed. Thus the toxines of syphilis are weakened, and their power to develop micro-organisms is destroyed for varying periods. Granting these premises, and they seem to me the logical sequence to be inferred from observing the results of treatment, it appears that we are justified in saying that by proper treatment from time to time we are able not only to destroy the "developed and developing organisms of syphilis," but that we can destroy the activity of the poison itself for the time being, so that no more germs from the syphilitic poison will be developed for a time. Just how long this time of apparent security is we do not know. What agent seems to meet the demands in destroying these organisms and the activity of the poison? Potassium iodide in from ten- to fifteen-grain doses thrice daily seems to be entirely reliable. It does not appear to be necessary to continue this treatment more than two or three weeks at one time. Just how long an interval should be allowed to elapse before resuming the treatment we do not know. So far as we know, three, or perhaps four, months' interval may be allowed before the treatment is again resumed and continued for a period of two or three weeks. Gowers says that potassium iodide in ten-grain doses thrice daily should be given for periods of two weeks three times a year, separating each period of active treatment by an equal interval of time.

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* W. Julius Mickle. *Brain,* 1895, part i, pp. 99, 100.

We may ask, if potassium iodide is so effectual in preventing the development of tertiary lesions of syphilis, how is it we so often see severe syphilitic lesions develop while we are giving this drug in large doses? There are several explanations to meet this query. One is, that it is usually easier to prevent than to cure a disease; a second, that when an active and probably multiple brain lesion has developed, the vitality of the patient is so reduced that the absorbent vessels fail to respond to the usual stimulant; and yet, a third, large doses of potassium iodide may be given for so long a time that the treatment itself, and not the disease, is responsible for the depressed condition of the patient. It has been observed over and over again that the greater the depression and the less the vitality of the victim the greater the ravages of syphilis.

General Management.—It is not necessary to go into details under this subdivision of the treatment. What Professor H. C. Wood terms the accidents of syphilis, such as apoplectiform attacks, hemiplegia, coma, apparently from cerebral congestion, and convulsions, should receive attention and be treated as such conditions are when they are not the result of syphilis. While I simply desire to call attention to these complications or accidents of syphilis, I wish to give a warning in this connection. It is *not* safe to postpone antisyphilitic treatment in these cases until the "accidents" have been relieved, but specific medication should be instituted at once in proper cases.

According to my experience, it is rare in private practice, either personal or consultant, to meet with cases of syphilis in which emaciation is great and anæmia pronounced, but in hospital work, especially in institutions devoted to charity alone, it has not been uncommon for me to meet with such cases. It is often worse than useless to treat some of these patients at first by specific medication. What they need, and must have before specifics will act, are stimulants, tonics, and an abundance of nutritious food. In other cases, in which anæmia and loss of flesh are less marked, specific medication and a tonic course of treatment should be begun at one and the same time.

Antisyphilitic Treatment.—When shall we give mercury or potassium iodide, and when shall we administer both for the relief of intracranial syphilis? I do not believe that the time that has elapsed since the initial lesion was contracted is any guide. My experience has been that the activity of the syphilitic process is the most, yea, so far as I know, the only guide to the choice of mercury or potassium iodide. The greater the activity of the poison, the more acute and violent the symptoms, the greater the demand for mercury. On the other hand, potassium iodide apparently does more good in the chronic specific processes than does mercury. I do not wish you to infer that mercury does no good in chronic syphilitic lesions and that potassium is useless in the active and acutely irritative ones. On the contrary, I believe that each may be indicated in almost any stage of intracranial syphilis; but when it is a question under which drug's influence we must first seek to bring our patient, then the acuity or chronicity of the syphilitic inflammation should guide us.

I shall not discuss the details of treatment; each has his favorite prescription and methods of administration. We should, however, when we have syphilitic inflammation or deposits to be got rid of, push specific medication to the point of tolerance. The results of treatment, and not the dose of potassium iodide or mercury, should be our guide. In a few cases of active specific lesions of the brain I have given with great benefit half a grain of bichloride of mercury thrice daily. In one instance it required 1,060 grains of potassium iodide daily to accomplish the desired result, but these are rare and exceptional cases.

Before closing, I wish to direct your attention once more to the intracranial lesions of syphilis and their effects on adjacent structures. We found that gummata were specific in character, and when attacked early yielded readily to antisyphilitic treatment; that they soon began to degenerate, each gumma showing spots of degeneration of a caseous or fibroid nature; that the final results of the degeneration of gummata were not specific in character and showed no tendency to yield to antisyphilitic treatment; that the cicatricial tissue left by the degeneration, although the gummatous material was all absorbed, formed scars in the brain, on its cortical surface, or bands at the base, in the latter situation often giving rise to destruction of the cranial nerves, causing blindness, ocular paralysis, and various cranial-nerve symptoms, all of which are not relieved by specific medication. We found that specific meningitis yielded to treatment, yet a thickened condition of the membranes remained, giving rise to basilar or convex cortical symptoms, in the one instance as evidenced by cranial-nerve disturbance; in the other, by motor and mental manifestations of a perverted character; that the meningo-encephalitis was sometimes developed, although due to syphilis, yet the destructive lesions were not specific in character. Again, we found a specific inflammation in the walls of the blood-vessels caused narrowing of the arteries, but that their final occlusion was the result of blood clot, non-specific in character, and that the softened brain area was non-specific, although indirectly due to specificity. Finally, the chronic degenerations are non-specific in their character and do not yield to antisyphilitic medication.

What lessons should we learn from a study of the intracranial lesions of syphilis and their results? First, that for a certain time antisyphilitic agents may be given to the point of toleration for the removal of gummata; secondly, that there are numerous non-specific intracranial lesions resulting from specific causes, which fail to yield to specific medication.

How pitiable it is to see a hemiplegiac or a dement whose helplessness has been caused by thrombotic occlusion of a vessel, indirectly due to syphilis, treated at this place or at that by courses of mercury, or, equally as bad, by large doses of potassium iodide, for many months or even a year at a time! When will the profession learn to treat syphilis of the brain according to the lesion from which the patient is suffering? Should we not learn to have some regard for our patient, notwithstanding that he is so unfortunate as to be the victim of syphilis?

A BRIEF CONSIDERATION OF
GANGRENE AND MORTIFICATION
(TRAUMATIC AND PATHOLOGICAL)
OF THE EXTREMITIES.*

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In former times there was no subject connected with the literature of surgery on which greater attention was bestowed than that dealing with local death of the tissues from either injury or disease; but since anæsthetics and antiseptics have enabled us to institute a more effective technique and therapy in operative surgery, notably during the past twenty years, authors have given but indifferent notice to these phases of tissue degeneration; moreover, a modern classification, possessing no merit except in its novelty, has tended rather to confuse than to clarify the subject.

In the recent past, the very word "gangrene" conveyed a terrible significance. Purulent infiltration and impending mortification after serious traumatisms of a limb were not infrequent when amputation was invoked as the only means of saving life; and oftentimes suspicious signs of gangrene so inspired one with fear that many a limb was sacrificed before time for full reaction was established.

But those times are forever past, and, as a contemporaneous writer well says of malignant infectious gangrene, "we now no longer witness it, except in the laboratory of the investigator." Notwithstanding all this, gangrene and mortification of various types we yet have, and will for all time, some of which we are better able to control, limit, or prevent; while there are others which we are powerless to either avert or control.

Classification and Nomenclature.—While making a recent review of surgical literature it soon became apparent to me that, from a practical standpoint, the modern classification or arrangement of the study of gangrene is not only no improvement on the more ancient, but that it rather confuses than elucidates the subject in including under one head every type of tissue death as "gangrene." Thus Reclus defines gangrene as "a limited mortification of the tissues, not to be confounded with putrefaction or putrid fermentation." Now, *mortification,* in its proper meaning, is invariably attended with putrescent changes. "But," he adds, "putrefaction may follow gangrene of various types."

It follows *all,* when this process completely destroys the tissues. Bouchard strikes the proper note when he says, in his masterwork on pathology, that "gangrene is a special process to which is superadded inflammatory changes."

Even so eminent a writer as the late Sir James Paget is anything but lucid or comprehensive in his description of tissues the seat of destructive processes. "By mortification or sphacelus is meant the death of any portion of the body, while the rest remains living," he said. Nothing more concise or definite. "Gangrene," he adds, "is usually employed in the same sense. . . . The process of progressive dying is commonly called sloughing." But sloughing is the throwing off, not of "dying," but dead tissue.

This celebrated author deals at length on the difficulty often experienced in distinguishing a part in a state of asphyxia or suspended animation and complete death, and compares the resuscitation of localized parts to that which follows sometimes in the body after drowning.

Boyer's succinct definition can not be improved, as it, in a word, describes the wide and vital difference subsisting between two totally different conditions. Thus he says: "Gangrene implies the dying state of the tissues; mortification, their complete death."

As an illustration, let us take a member which has been so completely crushed through that it hangs only by the tendons to contiguous parts. Here, if the lower extremity, the foot, is instantly killed, its life is extinct, and decomposition at once begins: it is *mortified.*

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* Abstract of essay read at the annual meeting of the International Association of Railway Surgeons, Detroit, May 30, 1900.

In another instance, the foot, or perchance a toe, was crushed in a minor degree—the bones exposed or fractured, with the tissues widely opened. Now, injudicious bandaging with a strangulation of the blood-vessels ensues, or infection sets in. In either event, stasis, congestion, and inflammatory changes set in, the foot swells, becomes the seat of excruciating pain, the tips of the toes become livid, and serous blebs cover the surface here and there.

Gangrene has set in, its destructive work has *begun,* but the member is not dead, *is not mortified;* it is in a state of impending death, but it is *not dead,* and in the traumatic type of gangrene of a limb in a healthy subject, by appropriate radical treatment, it should always be saved.

The latest definition of gangrene comes from a noted American pathologist, and further illustrates the error that has been committed in departing from the etymological significance of the term, and following the unfortunate custom of the day. He says: "Gangrene is a term applied to the death of a part on the surface of the body, which is readily accessible to bacteria, and, therefore, is almost invariably accompanied by decomposition. . . . Mortification is a variety of gangrene."

But we have pulmonary, intestinal, and other anatomical types of gangrene of internal organs. Mortification *follows* the uncontrolled variety.

Various Types of Gangrene of the Extremities.—Clinically and practically, gangrene of the extremities may be divided into two varieties viz., *traumatic* and *senile.*

Constitutional conditions play an important rôle in every variety of gangrene; in some instances this is so positive that it might be regarded expedient to make a third class of this type; but, at the most, it can only be regarded as a predisposing factor.

The *pathological conditions* most obvious in the tissues after great violence are four in number:

1. Suspended animation, asphyxia.
2. Inflammatory changes.
3. Gangrene.
4. Mortification.

The first is that state which we should be familiar with following violent injuries, as a want of a proper appreciation of it in the days of primary amputations often led to the needless sacrifice of limbs which should have been preserved.

The mangled limb is blanched, cold, and pulseless; the bone is shattered, and the soft parts are widely opened.

We sometimes encounter this state after bad frostbites. Dr. J. C. Warren records such an instance, in which the patient, a young man, was brought to the operating table for a double amputation, when it was decided to delay. Finally he recovered with both limbs preserved, only two toes being removed.

La Motte chronicles a somewhat similar instance in a young man whose forearm was injured by a violent blow from a billiard cue. He says that in spite of discoloration of the corneal layer of the integument, the arm being cold and pulseless, after six days pulsation, heat, and sensibility returned, and all signs of impending mortification disappeared.

We must be on our guard for this ischæmic condition after fracture adjustment so long as the present vicious custom prevails, of *immediate* fixation after injury. We help it along by the pernicious practice of paralyzing the pain sense by large and needless morphine injections after the fractured limb is adjusted.

Inflammatory changes invariably follow in the tissues of a mangled or injured limb which has not been destroyed outright; here, mortification or cadaveric changes immediately follow.

Intense inflammation, involving tissues but imperfectly fed by the arterial current, favors gangrenous mutations, whether attended by bacterial invasion or not.

"Inflammation," says Mr. Watson Cheyne, "has to do with gangrene in a variety of ways; it may be the direct factor in its production, as a result of extensive stasis of the blood-vessels. Septic organisms produce acute inflammation, but they do not directly destroy the vitality of the tissues."

If, therefore, we would prevent gangrene or arrest its ravages, we must be on the alert for, and by radical measures stamp out, its forerunner, rapidly spreading inflammation. The parts must be freely incised, mortified tissue cleared away, all tension relieved, the parts "embalmed," loosely and comfortably supported.

Gangrene is essentially a vital process which succeeds asphyxia or violent inflammation of the tissues, and tends toward *mortification,* or the total death of the part, if not arrested.

Gangrene, according to the ambiguous definition of Duplay, is "a limited mortification of the tissues, not to be confounded with putrefaction of the tissues; but putrefaction may follow various types of gangrene."

Of the traumatic types we have two clinical varieties, the acute and the subacute.

The acute, *gangrene foudroyant,* we will most frequently observe after a local infection, as, from the bite of a reptile, or after injury or tight bandaging. In six hours after a man was bitten by a rattlesnake, his whole arm, up to the shoulder, was thoroughly mortified, and gangrene was rapidly advancing toward the trunk. He was bitten at midnight in the thumb. I saw him at 8 A. M. He was dead at 12 M. No amputation was undertaken.

A young man had his hand widely torn open by a butcher's hook, on Saturday morning early. The wound was injudiciously closed by suture. Sunday morning, gangrene had set in and destroyed the whole arm. Amputation of the limb at the shoulder at noon.

In both cases gangrene had advanced with appalling suddenness in a few hours, leaving the limbs cold, œdematous, black, and bloated.

A drunken man was brought into the hospital with a comminuted, open fracture of the leg; good circulation in the foot. The limb was immediately placed in a firm adjustment. The next morning the whole foot was cold, blackish blue, and dead; gangrene had advanced nearly to the knee. Amputation of the leg twelve hours after admission; death from shock six hours later.

Subacute gangrene we witness the more frequently. It is much the more docile, and in sound, well-fed subjects may any time be cut short by surgical intervention. It is quite invariably accompanied by pyogenic infection, which works ravages through the lowly organized connective tissues.

It follows most frequently from infected fractures of the digits, or body of the hand or foot, or from those severe contusions attended with open fractures of the phalanges, or bones of the hand or foot. We sometimes witness it in open fractures of the leg.

Acute destructive gangrene is essentially the rapid death of a part from mechanical occlusion of the main blood trunk, or from the lethal action of some toxic agent which immediately paralyses the vasomotor system. Subacute gangrene is an inflammatory process attended with a low grade of inflammation.

Mortification.—This state implies the end of life in a part, and the beginning of decomposition. Therapeutics plays no rôle in dealing with mortification, as there are no vital influences in operation.

When this process is complete, all speculation as to restoration or preservation is out of the question, as our only concern now is how we shall detach the dead from the living, be it a slough, a necrosed bone, a tissue structure, an appendage, or a limb.

Whether it shall be left to processes of Nature or to art, or both, must be decided by circumstances.

Mortification may occur in a part without the intervention of inflammation; when gangrene pursues a course fatal to the vitality of a part or a limb, *mortification* is the result.

Incomplete Structural Gangrene or Mortification.—From a lack of proper comprehension of what is intended to be conveyed by the term *gangrene* or *mortification,* and from inadequate or faulty description of the terms commonly set forth, a large number of limbs or their appendages are annually sacrificed which should be preserved.

Let us remember that we may have the structural death of a part of specialized anatomical elements, while all the other structures practically preserve full vitality. Thus a large plaque of integument may be thrown off, while all the underlying parts are preserved; a bone alone, or a part of it, dies; a tendon, a muscle, or an aponeurosis. The connective tissues part with their vitality the first and slough. The nerves and blood-vessels resist the longest.

And hence we have: 1. Cutaneous gangrene or mortification. 2. Osseous gangrene or mortification—caries or necrosis. 3. Muscular, tendinous, or ligamentous. 4. Of the connective tissues, the myxomatous, adipose, or fibrous.

To amputate a limb the seat of only structural gangrene would be a very serious mistake, which, in civil life, nothing can justify.

Senile Gangrene.—Senile gangrene is a phase of tissue destruction in every particular totally unlike the traumatic type. We have made no special advances in the treatment of this form of gangrene, which, like malignant disease, falls with equal force and frequency on all, regardless of former condition or habits.

Of late years, according to the experience of some, it is said to be on the increase. It begins by a local asphyxia in the toes or one of the joints of one, usually the little toe. It is always attended with great pain after ulceration begins. In 1851, Marschall de Calvi demonstrated the frequent coexistence of this lesion with glycosuria. Yet it is doubtful what relation the sugar disease bears to this condition, and, as M. Reclus, in his recent able contribution, declares, "What the relation is, remains very doubtful."

It has been maintained by Demarquay that the modification which sugar produces in the tissues favors ulceration after a trifling trauma. But several very extensive injuries in the diabetic have come under my notice without any gangrenous ulceration following; certainly the diabetic may do well after surgical operations.

Dodo Bujroid, however, has shown that glycosuric tissues provide a culture medium for the rapid growth of phlogogenic microbes which stir into activity gangrenous phlegmasia.

Hayem describes at length the changes in the blood and vessels of the glycosuric afflicted by gangrene.

The most pronounced changes are in the arteries, though, as Van Swieten, Paget, and others have pointed out, contrary to the generally accepted view, the veins are sometimes actively concerned as ætiological factors.

Treatment is tentative and radical. The suffering in these cases is generally so great that the afflicted are prepared to submit to any course which promises relief.

Amputation early, of the toe involved, may sometimes arrest the disease for a time. Amputation through the leg is very liable to be followed by gangrene of the flaps, and amputation through the thigh is followed by a large mortality. Moreover, after one limb has been successfully treated by amputation, gangrene may appear after an interval of time in the sound foot.

Finally, it may be said that temporizing remedies are of no avail whatever in these cases, and we can promise little by amputation unless adopted early.

THE
ÆTIOLOGY AND CURE OF HYSTERIA.

By F. WALTER, M. D.,
PERRY, MO.

If a massive culture of the colon bacillus, the original colony of which was taken from a non-infectious source, be administered to a case of hysteria—that is to say, of the active or convulsive type—latent or post-hysterical phenomena, such as paralysis being excluded, the symptoms disappear in from twenty-four to forty-eight hours and the patient is restored to health so far as the hysteria is concerned; debility or neurasthenic phenomena may remain for an indefinite period.

The uniformity with which this occurs justifies the placing of this remedy in the class of specifics; indeed, the action of quinine in malarial fever is no surer or more uniform in its results.

The consideration of this clinical phenomenon when paired with our knowledge of the bacterial flora of the intestinal canal seems somewhat paradoxical; this same bacterium is already present in the dejections of every hysterical patient, then why should the administration of more cure instead of aggravate the symptoms? which latter would be a natural inference if a causative relationship was thought to exist between the micro-organism and disease in question.

Two views may be given in answer: one assumes the existence of a specific organism causative of hysteria not to be differentiated by our present methods from the *Bacillus coli communis;* the other, that in the intestinal tract of predisposed subjects the otherwise harmless colon bacillus may take on toxic properties. In either event the offending organism is simply displaced by the method of treatment here advocated.

A limit is soon reached in the growth of the colon bacillus under normal conditions due to the absence of oxygen. Even in patients who have a stool no oftener than once a week the bacteria do not multiply in the ratio that one should imagine. In the cure of hysteria this limit has only to be supplied artificially by a non-toxic variety; the original germs have then no opportunity to multiply and the symptoms speedily subside. The individual steps of procedure upon which the foregoing is based are as follows:

From the stomach or intestinal mucus of the hog, from the dejections of the same animal, or that from the barnyard fowls, a colony is isolated by means of the agar plates; this is removed to an agar test tube, from which future massive cultures may be made. The latter may be made on potato, but with less trouble on the surface of agar in Petri dishes. When the growth is well developed it may be scraped off, suspended in water, or mixed with some indifferent substance, as starch, and administered in capsules.

The well-matured growth on one Petri dish may serve to make from three to six doses. This given three times a day will prove sufficient.

The growth should be fresh, for if perchance the bacteria be dead, having been kept a number of weeks, no result will be obtained.

I trust this matter will be given a more extensive trial, and data thus be given for defining its true range of usefulness and limitations of its curative power. It is probably superfluous to enter a word of caution in reference to diagnosis. Results may confidently be expected in hysteria, but none in neurasthenia; unfortunately the two diseases are often confounded.

Therapeutical Notes.

A New Drastic Cathartic.—'Ιατρικὴ Πρόοδος for April ascribes the following to Bonatti:

℞ Senna leaves	180	grains;
Infuse in boiling water	4,500	"
Add—		
Chlorine water .... from $22\frac{1}{2}$ to	45	"
Simple syrup	450	"
M.		

This preparation exercises drastic results where even jalap and croton oil have failed.

For Perforating Ulcer of the Mouth.—This condition, which may occur, not only among syphilitics, says Dr. Compaired, of Madrid (*Revue hebdomadaire de laryngologie, d'otologie et de rhinologie,* April 14th), but also in tabetics and in persons otherwise sound, as in a case recorded by the author, may be satisfactorily dealt with by scraping, cauterization with an eighty-per-cent. solution of thymol and a collutory of the same drug at a strength of one to one thousand, accompanied by scrupulous care of the teeth and gums.

Quinine as an Adjuvant to the Salicylates.—Decoopman (*Escalpel; Progreso médico,* June) has found that the nausea, vomiting, noises in the ears, insomnia, etc., produced by salicylate of sodium when administered for acute articular rheumatism can be obviated by combining the salicylate with quinine. His formula is:

℞ Salicylate of lithium	30	grains;
Sulphate of quinine	$1\frac{3}{4}$	grain.
M.		

To be administered in four divided doses.

For Intestinal Antisepsis in Typhoid. — Rozsler (*Gazzetta degli ospedali e delle cliniche; Gazzetta medica lombarda,* April 15th) recommends the following:

℞ Thymol, Carbonate of guaiacol, Medicinal soap,	of each.. 90	grains.

M. Divide into thirty powders, of which one may be taken every four hours.

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THE HORROR IN CHINA.

While there is still room for some hope that the harrowing reports current as we write concerning the atrocities visited by the Boxers upon Europeans and Americans in Pekin are exaggerated, it is to be feared that they are not. At all events, the general feeling here is that by this time there is not a single white man, woman, or child left alive in the Chinese capital. There are some persons, however, who, knowing or supposing that a few of the Chinese are friendly to the whites, imagine that they have taken pains to secrete as many of the foreigners as possible, or at least a few individuals for whom they may entertain a particular regard. Doubtless there are such friendly Chinese, and probably they would take the risk of making the attempt, but the Boxers are no mere mob whose rage will wear itself out in a few days. The imperial government, whatever may be its intentions, seems practically powerless against them, so far as protecting foreigners is concerned, and it may well be that the show of making the attempt will still further infuriate the horde of enemies of the "foreign devils," and protract the search they will undoubtedly make for all on whom they are bent on wreaking vengeance. If this is the case, the well-disposed natives can hardly be expected to go on shielding those in hiding up to the time when relief can come from the allied forces, even if it comes at all. The outlook, therefore, is dreary.

We must not forget that there are many practitioners of medicine among the missionaries in China. One might hope that their beneficent work would protect them at least, but the reported murder of Dr. Edna G. Terry in Tsun-Hua seems to point to the futility of this hope. Although that heroic woman is said to have made a favorable impression upon the people at the outset of her career as a missionary, the fact did not prevent her taking off. Claims on mercy are apt to pass unheeded in a time of popular tumult, and it is to be feared that many medical missionaries will be found to have suffered martyrdom.

AN ADMIRABLE AUXILIARY TO RACIAL EVOLUTION.

No subject that bears upon the evolution of the race, even though it has nothing to do directly with the healing art, is foreign to the purport of a medical journal, which is our justification for stepping somewhat outside the beaten track to comment on a system obtaining in Chicago of dealing with juvenile offenders. From the *New York Times* for July 7th, citing the *Chicago Tribune*, we learn that the results of Chicago's "juvenile court" for its first year of work are now public property. This court has apparently been established for the trial of juvenile offenders, having especially in view the aim of securing reform and rescue without the stigma which would inevitably attach to the penal sentence of an ordinary court in the case of first offenders; while to those more advanced in crime, but not deemed incorrigible, this court affords a chance by their removal from an evil environment which, in the majority of instances, is undoubtedly the cause of youthful wrongdoing.

We learn that during the first year's work of this juvenile court, 2,298 children have appeared before the judge. Of these, 1,100, or nearly half, have been paroled by him to the "probation officers," and of these 1,100 it is most gratifying to learn that only fifteen per cent. have been returned to the court for a second hearing. By this means it will be seen that many hundreds of children convicted of a first offense have been probably rescued by an effective reprimand from the necessity for punishment, and from the subsequent stain upon their characters which would have been entailed thereby.

For the more hardened offenders the court has yet two methods by which it essays to "snatch the brand from the burning" before resorting to a criminal sentence; its first procedure being the removal of the children from their present surroundings, probably often at fault and responsible in some sort for their offenses, and their transfer to an environment, we presume of an individual character, which shall immerse them in a more wholesome sphere of influence; while, as a more severe measure, worse offenders are sent to an institution, but without the imposition of a criminal sentence.

It can readily be seen that such a method of judicial procedure, if properly and tactfully carried out, is a work akin in the moral plane to that in the physical of the State Aid for the Chronically Diseased, whereof we have had occasion recently to treat with satisfaction. Even from the physical standpoint this plan is likely to bear good fruit; for moral conditions and physical and mental ones, act and react on each other in a circle, vicious or beneficent, as the case may be. Let the vicious circle be broken at any point, moral, mental, or physical, and an elevating influence is at once communicated to the two others which in their turn react with reenforcing vigor upon the first.

Consummate judgment and tact are clearly necessary qualifications for the judge of such a court, and it is doubtless, as the *Chicago Tribune* asserts, in no small degree due to Judge Tuthill himself that the first year's record is so excellent. The field is a new and a worthy one, and should be an enticing one to aspirants for both legislative and judicial laurels in other cities and in other States.

BUCKTHORN AND CASCARA SAGRADA.

THE second number of the sixth volume of the *Ephemeris of Materia Medica, Pharmacy, Therapeutics, and Collateral Information* consists of Dr. Squibb's fourth paper, reprinted from the *American Journal of Pharmacy* for July, on the subject of acetic acid as a substitute for alcohol in the extraction of certain drugs. The author's main purpose, of course, has been to present this pharmaceutical matter, but incidentally he gives considerable information of a therapeutical character.

The bark of buckthorn (*Rhamnus frangula*), he remarks, is employed in northern Europe for making charcoal to be used in the manufacture of sportsman's gunpowder, and, as the bark of young trunks and limbs, carefully dried, is preferred for that purpose, the market is well supplied with bark suitable for medicinal use. On the other hand, the bark of cascara sagrada (*Rhamnus purshiana*) is apt to have been taken from old trees. Buckthorn, therefore, is preferable from the pharmacist's point of view. Dr. Squibb thinks that buckthorn has also some therapeutical advantages over the other drug. Neither, he says, is a purgative or even a good evacuant, but both overcome constipation when used in small doses three times a day, and the effect is not produced until the day after they are taken. A convenient dose of the fluid extract is eight minims, diluted with about an ounce of water, to be taken after each meal of one day and after the first and after the second meal of the following day.

Both drugs act as stimulants to the liver, and it is the increased flow of bile produced by them that gives rise to the laxative effect. Cascara, although not a "therapeutic duplicate" of senna, resembles it in the character and quality of its effects, and has the advantage that the dose required is smaller. Buckthorn bears a similar relation to rhubarb. Cascara has nearly twice the activity of buckthorn, but, like senna, it is prone to gripe; moreover, it often has a lingering action on the lower bowel. In its laxative action buckthorn is not unlike blue mass. Finally, the taste of buckthorn is not so unpleasant as that of cascara.

As regards the pharmaceutical aspect of his article, Dr. Squibb appears to have established the superiority of acetic acid to alcohol for the extraction of these drugs. The acetous fluid extracts contain less sediment and are more agreeable to the taste than those made with alcohol.

INTERFERENCE WITH "CHRISTIAN SCIENTISTS."

IN Pith of Current Literature in the current issue, a paper on Christian Science, by Dr. Harry T. Marshall, is abstracted from the *Bulletin of Johns Hopkins Hospital*. In his conclusions as to the method of dealing with this remarkable delusion we think the true keynote has been struck in a careful distinction between the protection of the community and interference with the individual. To attempt to protect the individual, against his own free will, from the absurdity of his cherished convictions is, apart from the questionableness of its moral justification, highly impolitic, and is sure to invest the principles attacked with that most powerful auxiliary, a sympathy arising from seeming persecution with its halo of martyrdom. If a man, from a firm conviction of his powers, chooses to risk his life in walking across a morass which his neighbors believe to be impassable, that is his affair, and both their duty and their right to interfere end with warning and argument. But if he attempts to force some unwilling individual across, or to persuade a child, incapable of forming a rational opinion for itself, and under such constraining influence as parental control or other guardianship, to go, the community may then, if need be, justly take restraining measures. Again, if he is bound by a rope to others in such wise than he can not proceed without dragging them in also and involving them in his danger, then not even the sanctity of a religious belief on his part will rightly withhold them, and all other folk, from preventing him, by force if need be, from imperiling other lives than his own. And these are things that the Christian Scientist does when, for instance, he allows a child to burn to death, as is said recently to have happened (*New York Medical Journal*, July 14th, p. 70), without making any effort to extinguish the fire, relying solely on his own peculiar theories for aid; or when, while treating diphtheria in a willing patient by his own cranky notions, he takes no measure to prevent the spread of the infection to others. He may choose not to believe in the commonly supposed dangers as held by others if he pleases, so far as it concerns himself alone; but, if he can not proceed without the risk of dragging others into the morass, those others have an indefeasible right to restrain his individual liberty in order to preserve themselves from the danger they see ahead.

A KNOTTY POINT IN LIFE INSURANCE.

ACCORDING to a recent issue of the *Sun*, a man who had been condemned to death for the murder of his wife carried a life-insurance policy to the extent of six thousand dollars. It seems that the company, which did not relish the prospect of having on its books as a risk a man who had been executed, paid the policy claim prematurely. The accused, however, succeeded in obtaining a new trial at which he was acquitted, and was consequently liberated. Even life insurance is not exempt from the rule that it is not always advisable to meet seeming inevitable sorrows halfway.

THE PLAGUE IN CHINA.

To add to the horror of the situation, comes the news that the Oriental plague is spreading alarmingly in Pekin, and that there are many cases in Tien-Tsin. The melancholy consolation remains, however, that, if the reports of the massacre in Pekin are true, it is only the fiendish murderers that will suffer from the disease in that city.

ALCOHOLISM AND GENERATION.

According to the *Presse médicale* for June 30th, the investigations of M. Nicloux, presented at a recent meeting of the French Society of Biology, show that alcohol ingested in a ten-per-cent. solution passes into the following glands and secretions: The testicle, the prostate, the ovary, the fluids of the vesiculæ seminales, and the semen. The comparison between the relations of alcohol to the blood and the other tissues studied shows that it passes freely into the testicular tissue, which contains almost as much alcohol as the blood itself. The baleful influence upon the offspring of alcoholism in the parents thus receives strong confirmatory support, and is in some measure explanatory of the views on heredity as regards alcoholism of Archdall Reid abstracted from the *Scottish Medical and Surgical Journal* in our issue for July 14th.

THE HEALTH OF CUBA.

Governor-General Leonard Wood recently arrived in New York, and on Wednesday the *Sun* represented him as having said that the rural districts of Cuba were in an exceptionally healthy state. We infer from his other remarks that even in the cities there is not an uncommon amount of sickness for this season of the year. It really seems as if the island had undergone sanitary regeneration.

THE MEDICAL SERVICE IN CHINA.

Press dispatches indicate that our army medical service in China will be ample from the start as regards personnel, equipment, and supplies—that there is no "unpreparedness" this time. It is most gratifying to know this.

A MEMORABLE ADDRESS.

We venture to say that seldom has such an excellent address been delivered to a class graduating in medicine as the one given recently at the annual commencement of the Kentucky School of Medicine by Dr. Roswell Park, of Buffalo, which is published in full in the *Louisville Commercial* for July 8th. Dr. Park always writes gracefully, but in this address he was at his best. He dealt chiefly with historical matters.

THE DISCOVERY OF STERCORIN.

In the *Gazzetta degli ospedali e delle cliniche* for June 26th we find a paragraph to the effect that "Augusto Zlint," of New York, energetically protests in Hoppe-Seyler's *Zeitschrift für physiologische Chemie* against the claims of Bondzynski and Humnicki, who recently announced the discovery of a new substance, coprosterin, in the fæces. According to "Zlint," this substance is nothing else but stercorin, a constituent of the fæces which he himself discovered in 1862. It will be difficult for the uninitiated reader of the *Gazzetta* to recognize the name of Austin Flint under the disguise of "Augusto Zlint."

THE DANGER OF ROUTINE CERTIFICATION.

The danger of giving a certificate without due examination is exemplified in an anecdote attributed by *Lyon médical* to M. Brouardel. A young doctor was called upon by a woman who engaged him to attend her in her approaching confinement. In the course of time he was called to her residence. He hastened to the place, but on his arrival was met with the remark that he was too late. A woman who was present showed him the baby and said: "You can do us a great favor by reporting the birth." He was indiscreet enough to do so without any examination. Subsequently it was ascertained that the pretended mother had bought the child for the purpose of inducing an elderly man with whom she had long been living to make her his lawful wife. The woman was prosecuted, and the young doctor was treated as her accomplice. Fortunately, M. Brouardel was able to intervene successfully in his behalf.

ITEMS.

Infectious Diseases in New York.—We are indebted to the Sanitary Bureau of the Health Department for the following statement of cases and deaths reported for the two weeks ending July 14, 1900:

DISEASES.	Week ending July 7.		Week ending July 14.	
	Cases.	Deaths.	Cases.	Deaths.
Typhoid fever	25	10	32	9
Scarlet fever	76	8	74	9
Cerebro-spinal meningitis	0	6	0	10
Measles	179	16	188	18
Diphtheria	232	36	214	33
Laryngeal diphtheria (croup)	6	0	1	2
Tuberculosis	217	136	214	137
Chicken-pox	6	0	4	0
Small-pox	1	0	0	0

The Medical Mirror's Prizes for Essays on Tuberculosis.—The *Medical Mirror*, in its issue for June, offers for the best theses on tuberculosis one thousand dollars in prizes, to be distributed as follows: Three prizes of five hundred, two hundred, and one hundred dollars respectively, and four prizes of fifty dollars each. The following gentlemen, we are told, have consented to serve on the committee of award: Dr. William Osler, Baltimore; Dr. George F. Butler, Chicago; Dr. A. R. Kiefer, St. Louis; Dr. C. Lester Hall, Kansas City, Missouri; Dr. H. R. Hall, St. Louis; Dr. Lewis E. Lemen, Denver; Dr. Joseph M. Mathews, Louisville; Dr. W. W. Grant, Denver; Dr. Thomas Hunt Stucky, Louisville; Dr. Hugo Summa, St. Louis; Dr. Walter Wyman, Washington, D. C. The entries will close on October 1, 1900, and the award is to be made on January 1, 1901.

Marine-Hospital Service Health Reports.—The following cases of small-pox, yellow fever, cholera, and plague were reported to the surgeon-general during the week ending July 14, 1900:

Small-pox—United States.

Washington, D. C.	July 1–7	4 cases.	
Jacksonville, Fla.	July 1–7	1 case.	
Cairo, Ill.	July 1–7	7 cases.	
Evansville, Ind.	July 1–7	1 case.	
Des Moines, Iowa	June 1–30	3 cases.	
Wichita, Kan.	July 1–7	9 “	
Covington, Ky.	July 1–8	13 “	
New Orleans, La.	July 1–7	18 “	5 deaths.
Cumberland, Md.	July 1–7	5 “	
Fall River, Mass.	July 2–9	2 “	
Jackson, Mich.	July 1–7	1 case.	
Minneapolis, Minn.	June 8–30	20 cases,	1 death.
Omaha, Neb.	June 23–30	3 “	
Manchester, N. H.	July 1–7	1 case.	
New York, N. Y.	July 1–7	1 “	
Cincinnati, Ohio	June 30–July 6	6 cases.	
Cleveland, Ohio	July 1–7	37 “	
Pittsburgh, Pa.	July 1–7	1 case.	
Ogden, Utah	June 1–30	6 cases.	
Salt Lake City, Utah	July 1–7	1 case.	
Roanoke, Va.	June 1–30	22 cases,	1 “
Tacoma, Wash.	June 23–30	1 case.	
Charlestown, W. Va.	July 7	4 cases.	

Small-pox—Foreign and Insular.

Prague, Austria.	June 16–23	5 cases.	
Cairo, Egypt	June 10–17	1 case.	
Liverpool, England	June 16–23	1 “	
London, England	June 16–23	13 cases.	
Bordeaux, France	May 1–31		1 death.
Paris, France	June 16–23		1 “
Athens, Greece	June 16–23	10 “	6 deaths.
Karachi, India	June 3–10	8 “	7 “
Madras, India	May 26–June 1		1 death.
Chihuahua, Mexico	July 1–7		1 “
Vera Cruz, Mexico	June 23–30		5 deaths.
Manila, Philippine Islands	May 19–26	1 case.	
Ponce, Porto Rico	June 8–23	1 “	
Moscow, Russia	June 8–16	19 cases,	2 “
Odessa, Russia	June 16–23	2 “	1 death.
St. Petersburg, Russia	June 16–23	27 “	11 deaths.
Warsaw, Russia	June 8–16		2 “
Straits Settlements, Singapore	May 19–26		1 death.

Yellow Fever—Foreign.

Barranquilla, Colombia	June 16–23	7 cases,	3 deaths.
Cartagena, Colombia	June 14–21	5 “	5 “
Panama, Colombia	June 25–July 2		1 death.
Havana, Cuba	June 20–30		3 deaths.
Santa Clara, Cuba	June 20–25	4 “	

Cholera.

Madras, India	May 26–June 1		2 deaths.

Plague—Foreign and Insular.

Port Said, Egypt	Apr. 20–June 18	75 cases,	32 deaths.
Karachi, India	June 3–10	13 “	13 “
Osaka, Japan	June 2–12	6 “	
Shidzuoka Ken, Japan	June 2–12	2 “	
Manila, Philippine Islands	May 12–26	7 “	4 “
Smyrna, Turkey	June 6–21	5 “	

Army Intelligence.—*Official List of Changes in the Stations and Duties of Officers serving in the Medical Department, United States Army, from July 7 to July 14, 1900:*

Alden, William, Acting Assistant Surgeon, United States Army, is assigned to duty at the United States General Hospital, Presidio of San Francisco.

Bowman, Madison H., Acting Assistant Surgeon, United States Army, will report for temporary duty at the United States General Hospital, Presidio of San Francisco, awaiting transportation to the Philippine Islands.

Ducker, Orlando, Major and Surgeon, United States Volunteers, is announced as military sanitary officer of Marianao.

Echeverria, Rafael, Major and Surgeon, United States Volunteers, is assigned to duty at the camp of civilian non-immunes to be established in the vicinity of Quemados.

Jenkins, Frederick E., Acting Assistant Surgeon, United States Army, will report for temporary duty with troops on the transport *Conemaugh* during the voyage of that vessel to the Philippine Islands.

Naval Intelligence.—*Official List of Changes in the Medical Corps of the United States Navy for the Week ending July 14, 1900:*

Grove, W. B., Passed Assistant Surgeon. Detached from the *Scindia* and ordered home.

Olcott, F. W., Passed Assistant Surgeon. Detached from the recruiting rendezvous, Philadelphia, ordered home, and granted sick leave for two months.

Rush, W. H., Surgeon. Granted leave of absence on account of sickness until October 1st.

Marine-Hospital Service.—*Official List of Changes of Stations and Duties of Commissioned and Non-Commissioned Officers of the United States Marine-Hospital Service for the Seven Days ending July 12, 1900:*

Stoner, G. W., Surgeon. Granted leave of absence for five days.

Glennan, A. H., Surgeon. Detailed as quarantine officer at the port of Havana, Cuba, *vice* Surgeon H. R. Carter, relieved.

Wasdin, Eugene, Surgeon. Granted leave of absence for ten days.

Williams, L. L., Surgeon. Detailed as acting medical purveyor during the absence on leave of Surgeon G. W. Stoner.

McIntosh, W. P., Surgeon. Granted extension of leave of absence for two days.

Blue, Rupert, Passed Assistant Surgeon. Directed to proceed to Milwaukee and assume command of the service, reporting at Washington *en route.*

Sprague, E. K., Passed Assistant Surgeon. Granted leave of absence for two days.

Grubbs, S. B., Assistant Surgeon. Detailed to represent the service at the fourth session of the International Congress of Applied Chemistry at Paris, France, July 23 to 31.

Billings, W. C., Assistant Surgeon. Relieved from duty at Washington, and, upon expiration of leave of absence, to proceed to Baltimore and report to the medical officer in command for duty and assignment to quarters.

Kerr, J. W., Assistant Surgeon. Relieved from temporary duty at San Francisco Quarantine and directed to proceed to Honolulu, Hawaiian Islands, and report to Surgeon Carmichael for duty.

Thornbury, F. J., Assistant Surgeon. On return of Passed Assistant Surgeon C. H. Gardner from leave of absence, to proceed to Chicago and report to the medical officer in command for duty and assignment to quarters.

Vogel, C. W., Assistant Surgeon. Relieved from duty at San Francisco Quarantine and directed to proceed to San Francisco and report to the medical officer in command for duty and assignment to quarters.

Glover, M. W., Assistant Surgeon. On being relieved from duty at Baltimore, directed to proceed to Boston and report to the medical officer in command for duty and assignment to quarters.

EARLE, B. H., Assistant Surgeon. Directed to proceed to Cape Nome, Alaska, for special temporary duty.

PIERCE, C. C., Assistant Surgeon. Relieved from duty at Mobile and directed to proceed to Tortugas Quarantine and report to the medical officer in command for duty and assignment to quarters.

GIBSON, L. P., Acting Assistant Surgeon. Granted leave of absence for five days.

Appointment.

A. G. GREENSTREET, of the District of Columbia, appointed acting assistant surgeon for duty at Wilmington, North Carolina.

Births, Marriages, and Deaths.

Born.

BARLOW.—In Berlin, Germany, on Thursday, June 21st, to Dr. W. Jarvis Barlow and Mrs. Barlow, of Los Angeles, California, a son.

KEAN.—In Morristown, New Jersey, on Thursday, July 5th, to Dr. J. R. Kean, United States Army, and Mrs. Kean, a son.

Married.

LOEB—HALLEY.—In New York, on Wednesday, July 11th, Dr. Solomon R. Halley and Miss Annette Loeb.

MURRAY—CLARK.—In Pomfret, Connecticut, on Monday, June 11th, Dr. T. Morris Murray, of Washington, and Miss Eleanor Vinton Clark.

SCHERER—RITZIUS.—In Westfield, New York, on Wednesday, June 20th, Dr. E. A. Scherer, United States Army, and Miss Amelie Ritzius.

THOMAS—UNFUG.—In Charleston, South Carolina, on Wednesday, June 27th, Dr. J. W. Thomas, Jr., of Norfolk, Virginia, and Miss Marie Margaret Unfug.

WILSON—LOMBARD.—In New York, on Tuesday, July 3d, Dr. James D. Wilson, of Boston, and Miss Bertha S. Lombard.

Died.

CHAMBERLAIN.—In Moss Point, Mississippi, on Friday, July 13th, Dr. John B. Chamberlain, in the thirty-sixth year of his age.

WELLES.—In Waterloo, New York, on Friday, July 13th, Dr. Samuel Russell Welles, formerly of the United States Army, in the seventy-sixth year of his age.

Pith of Current Literature.

Medical Chronicle, June, 1900.

On Growth and Overgrowth and on the Relationship between Cell Differentiation and Proliferative Capacity; its Bearing upon the Regeneration of Tissues and the Development of Tumors. By Professor J. G. Adami, M. D., F. R. S. E.—This is Professor Adami's contribution to Dr. Jacobi's *Festschrift.* The author says that from a study of the process of regeneration as seen in the different tissues in man and vertebrates generally it is possible to lay down the following laws: 1. The fully differentiated cells of a tissue proper never arise from cells that are themselves fully differentiated. 2. Under the *normal* conditions of growth and during physiological regeneration the fully differentiated cells would seem in nearly every case to be developed from " mother cells "—undifferentiated or but partly differentiated cells which themselves throughout the term of life of the individual never attain to the full differentiation peculiar to the tissue to which they belong, and which indeed they reproduce; for these mother cells by division give origin to the daughter cells, and it is the daughter cells which attain full differentiation and form the specific cells of the tissue. More rarely the functional cells themselves, by reversion to a more embryonal type, can take on the properties of the mother cells. 3. Under *abnormal* conditions the fully differentiated functioning cells of certain tissues are capable of proliferation and giving rise to cells of like nature, but this is only after a preliminary reversion to a simpler, more embryonic type. The fully differentiated cell as such is incapable of proliferation. 4. Or, otherwise, the energy stored up by the cell may be expended in one of two directions, but not in both—either in functional activity or in preparation for proliferation, and, the structure of a cell being the expression of the activity of that cell, the expenditure of energy in either direction is attended by corresponding morphological or structural differences in the cell. 5. The more highly differentiated a cell, the more highly elaborated its structure, the less the ease with which it reverts, and the less the liability to reversion to a simpler reproductive form; the simpler the cell, the greater the ease and the greater the liability to such reversion. It is thus possible, at the one extreme, to conceive cells so simple in function and in structure that functional or reproductive activity may be called into play indifferently without *recognizable* preliminary structural alteration, and, at the other, cells so highly differentiated that the capacity for proliferation has become entirely lost. The author next apples these principles to abnormal tissue formation, and says: Granting that in tumors we have aberrant tissue growth and that that tissue growth is due to certain cells assuming excessive proliferative properties wholly outside the needs of the economy, then such proliferating cells are to be considered as being derived: 1. From embryonic cell " rests " which have for a shorter or longer period remained latent in one or other tissue, and then have taken upon themselves a rapid proliferation leading to tumor formation. 2. From the mother cells of a tissue which, remaining undifferentiated, but capable of active proliferation throughout life, now assume excessive proliferative powers, their daughter cells retaining to a greater or less extent the characters and the properties of the mother cells. 3. From differentiated cells which, reverting to a simpler, more embryonic type, with this reversion gain the capacity for active and excessive proliferation. The author concludes: " Possibly I may add that the tendency to the development of glandular cancer in later life bears some relationship to the reversion and degeneration of gland cells at this period. As the tissues become exhausted, the more highly differentiated cells tend to become structurally simpler—revert, that is to say, to a simpler type—and with this simplification of structure accompanying atrophy there may be, I would suggest, along the lines already laid down, a greater liability for these cells to assume proliferative powers."

Remarks on the Pathology of the Thyreoid Gland. By William Thorburn, F. R. C. S.—The author starts with the propositions as now commonly conceded that the thyreoid gland secretes an internal secretion absorbed by lymphatics or veins and distributed throughout the body and having for its function the regulation of the general metabolism, but affecting chiefly the nervous system, the skin, and growing bones. The principal known chemical constituent is iodine. Deficient secretion causes athyreoidea and excess hyperthyreoidea. The effects of this "thyreoidin" may be attained however it be introduced into the system. Athyreoidea in man may be traumatic; acquired, or myxœdema; congenital, or cretinism. In thyreoidectomy the author lays it down as a rule of practice to enucleate adenomatous masses and to look for and leave behind such outstretched layers of thyreoid tissue as may be frequently found spread out over the tumor. All forms of athyreodea may be relieved or held in abeyance by the continued use of thyreoid extract. Hyperthyreoidea may be produced by excessive administration of thyreoid secretion, either accidentally, as by sweetbreads, or medicinally; by iodide of potassium given to stimulate the gland to further secretion; by hypertrophy of the thyreoid; and by too rapid absorption of the secretion even from a normally acting gland. The author strongly inclines to regard Graves's disease as a manifestation of chronic hyperthyreoidea. He further suggests that a possible normal function of the gland's secretion is to act as a general antitoxine, and instances the common enlargement during pregnancy, its peculiar relation to tuberculosis, and the infrequency of thyreoid syphilis. The simple hypertrophic goître is probably a compensatory antitoxic effect, calling for a search elsewhere in the body for the poison to which it is due.

A Case of Hepatic Toxæmia during Pregnancy. By J. W. Stenhouse, M. B.

The Lancet, July 7, 1900.

The Degeneration of the Neurone. By Dr. F. W. Mott.—The third of the Croonian Lectures on this subject.

The Present State of our Knowledge Regarding Visual Sensation. By R. M. Gunn.—An abstract of the Bowman Lecture upon this subject. It is of chief interest to physiologists and specialists in ophthalmology. The writer holds that the rods of the retina are the elements concerned in the appreciation of light, or, rather, of the change produced in the pigment cells by light, while the eye is thus adapted; although whether or not the retinal purple is visually concerned may be considered still an open question.

Unusual Complication following Gastro-jejunostomy. By W. H. Brown.—The writer reports the case of a woman, aged sixty-two, upon whom he performed gastro-jejunostomy for pyloric stenosis due to malignant disease. For two weeks after the operation the patient did well. At the end of that time the symptoms of obstruction reasserted themselves. Upon reopening the abdomen, it was found that a membrane as thick as ordinary note paper had occluded the new-made opening between the stomach and the bowel. It was torn away with the finger inserted through an opening in the stomach wall. The patient recovered and is now well, taking ordinary food and doing her usual work.

A Case of Primary Carcinoma of the Vermiform Appendix. By Dr. H. D. Rolleston.—The writer reports the case of a woman, aged twenty-six, whose appendix was removed for appendicitis. It was her fourth attack, the first one having occurred fourteen months previously. Upon opening the appendix, a globular mass a little larger than a marble was found near the apex arising in the mucous membrane. Microscopical examination showed this mass to be a primary spheroidal-celled carcinoma. The growth was most extensive in the mucous coat and could be traced outward into the muscular coats, but there was no growth on the outside of the peritonæum. The writer reviews the literature of the subject and holds that it is not so rare as would appear from the literature. The early cases often escape recognition, and in the older cases, where the disease has become extensive, the primary location of the lesion in the appendix is not recognized. When symptoms are present they are those of appendicitis.

On the Treatment of the So-called "Hay Fever," or Summer Catarrh. By Dr. K. Grube.—The writer calls attention to the fact that many cases of hay fever occur in gouty subjects, and recommends that in such cases combined treatment of the gouty tendency and the hay fever is often very beneficial. He recommends the application of the Neuenahr waters in the form of inhalations, gargle, and nose douche, together with hot baths and massage. The best time for this sort of treatment is during the months of May and June. He reports five such cases, all of which were benefited by the above-mentioned treatment.

Exercises in the Treatment of Lateral Curvature of the Spine. By Noble Smith.—In this article the writer considers the local effects which may be produced upon a crooked spine by specified muscular exercises, either by correcting the shape of and strengthening the joints, or by strengthening any particular set of muscles connected with the deformity. He classifies cases of lateral curvature according to their severity, and describes the various special exercises suitable for each class. General exercises and massage are also strongly recommended. The article is accompanied by thirteen excellent photographs, which illustrate the various special exercises.

One Hundred Consecutive Cases of Abdominal Section in Hospital Practice without a Death. By Dr. W. Duncan.—The writer reports one hundred abdominal sections performed at the Chelsea Hospital for Women between October, 1897, and June, 1900. Twenty were for uterine fibroids, twenty-three for ovarian cysts, eleven for extra-uterine gestation, nine for double pyosalpinx, twelve for diseased and adherent appendages, and seven for tubo-ovarian cysts. No deaths occurred. The two great dangers after abdominal section are shock and tympanites from intestinal paralysis. Shock is combated by hypodermic injections of strychnine. The occurrence of tympanites is prevented by passing a soft rectal tube up the bowel every four hours. If flatus does not freely pass after twenty-four hours, a high turpentine enema is injected, and, if necessary, repeated two or three times a day.

Suppurative Peritonitis; Spontaneous Evacuation; Recovery. By Dr. J. R. Wallace.—The writer reports the case of a girl, aged four, who, when first seen, presented all the symptoms of suppurative peritonitis. Medicinal treatment proving of no service, it was determined to perform laparotomy, and the usual preparatory dressings were applied to the abdomen the night before. On removing these the next morning, they were found to be adherent just above the umbilicus. In the effort to remove them the tissue beneath peeled off, and a stream of pus welled up in a jet six inches high. At least twenty-four ounces escaped, and the condition of the child improved at once. The aperture was dusted with iodoform. Pus continued to escape for four days, when the spontaneous aperture closed. The patient was discharged as cured seventeen days after the spontaneous rupture of the abdominal wall took place.

Contagious Catarrh or Roup in Fowls and Diphtheria in Man. By Dr. J. G. Sharp.—Roup is a contagious disease of fowls, characterized by the presence of a fine membrane in the mouth, and of a micro-organism which can not be distinguished from the Klebs-Löffler bacillus. This microbe is not virulent, for persons handling the fowls do not contract diphtheria. The writer investigated several epidemics of this disease, but in only one did cases of diphtheria occur in the immediate neighborhood. In one of the localities a severe outbreak of diphtheria took place later, but not a single case of roup occurred. A bacillus resembling the diphtheria bacillus has been found in the throats of healthy fowls. Paralysis is absent in roup cases. There are two varieties of roup: "wet" and "dry." The former is by far the more malignant, the latter being simply a mild catarrh. Roup probably differs entirely from "fowl diphtheria" so called.

Hydatid Cyst in a Native of India. By W. J. Buchanan.—The writer reports a case of hydatid cyst of the liver occurring in a native of India who had never left his native country. Owing to the extreme rarity of this disease in India, it was thought worthy to be reported.

Note on a New Medium for the Growth and Differentiation of the Bacillus Coli Communis and the Bacillus Typhi Abdominalis. By A. T. MacConkey.—The composition of the above-mentioned medium is as follows: Sodium glycocholate, 0.5 per cent.; peptone, 1.5 per cent.; lactose, 0.3 to 0.5 per cent.; agar, 1.5 per cent.; and tap water, q. s. The lactose is added after filtration. Stab cultures made with the colon bacillus become cloudy in twenty-four hours, while those made with the typhoid bacillus remain quite clear. This reaction is due to the following facts: (1) the salts of bile are precipitated by acids, and (2) the colon bacillus produces acid in the presence of lactose, while the typhoid bacillus does not. The medium has a marked inhibiting effect upon the growth of ordinary soil and water organisms.

The British Medical Journal, July 7, 1900.

The Use of Borax and Formaldehyde as Preservatives of Food. By Dr. W. D. Halliburton.—The writer urges that the use of foreign substances as preservatives of food stuffs should be abandoned and replaced by a more wholesale use of the method of cold transport and cold storage. An antiseptic is inimical to the life of the organisms that cause putrefaction: it can not, therefore, be harmless to the vital processes in the higher animals. Dyspeptic and other troubles follow the use of foods preserved with borax. Even if, as in the case of boric acid and borax, the poison is not cumulative, the continuous passage of foreign substances through the kidneys must be harmful to those organs. The writer has carried out experiments, the results of which go to show that borax and formaldehyde should not be used as food preservatives. Borax, while a very inefficient antiseptic, completely inhibits rennet activity when added to milk in the proportion of one part of borax to 1,000 parts of milk. Formaldehyde, while a powerful antiseptic, renders food stuffs very indigestible. A percentage of 0.05 part of formaldehyde renders gastric digestion (*i. e.*, with pepsin and hydrochloric acid) almost impossible. Pancreatic digestion is prevented by it even more readily. Pancreatic digestion of starch and rennet action on milk are both markedly delayed by the presence of formaldehyde. So that the injurious effect produced by these preservatives upon the enzymes of ordinary digestion furnishes a cogent reason why they should not be used in the preservation of food.

Seventy-two Consecutive Cases of Removal of Goître by Operation (Extirpation or Enucleation). By J. Berry.—The writer reported eight operative cases of goître in 1891. The present series of seventy-two cases is a direct continuation of that series. By extirpation is meant the removal of a portion of the thyreoid gland with its capsule: by enucleation, the removal of a localized tumor or cyst from within the gland. In thirty-three cases extirpation was performed, and in thirty-nine cases enucleation. Where possible, the writer prefers enucleation as being simpler and safer. Encapsulated tumors alone are suitable for enucleation: all others must be treated by extirpation. In fifty-four cases the operation was performed mainly or solely to relieve difficulty in breathing. In no case was operation performed for dysphagia alone. Deformity should never be the sole reason for operation, but dyspnœa almost always demands it. The forms of goître that are especially dangerous to life are the rapidly growing, bilateral goîtres of the young, and unilateral goîtres situated low down in the neck. Full details of the two operations are given. Of the seventy-two cases, three died: one from chloroform and the other two because the goîtres were large and the operations formidable ones. All the thirty-nine enucleation cases recovered. In only four cases was there any prolonged suppuration. Drainage for twenty-four hours was adopted in most cases. Sixty-five cases were in women and seven in men

Some Unusual Sequelæ of Epityphlitis. By A. E. Barker.—The writer reports five cases of epityphlitis, which serve to show the danger of delay in operating. The first case illustrates the development of subphrenic abscess as the result of epityphlitis. The second case also emphasizes the danger of lung complications from either extension of the inflammation around the cæcum upward to the under surface of the diaphragm, or of infarcts lodging in the lung and producing an abscess there. The third case shows the disastrous local results of leaving a perityphlitic abscess too long unopened, and the way in which the resulting "artificial" anus may be brought to heal. The fourth case illustrates ulceration due to concretion, and the opening up of adjacent small intestine without the formation of an abscess. The fifth case shows almost the same course of events where an appendix inflamed, but without any concretion, and nearly ulcerated into the colon.

Degeneration of the Neurone. By Dr. F. W. Mott.—The third of the Croonian Lectures upon this subject.

Antistreptococcus Serum in Erysipelas. By Dr. A. W. Harrison.—The writer reports a case of erysipelas in a woman, aged twenty-six, in which injections of antistreptococcus serum were used with markedly beneficial effect. The injections (ten cubic centimetres each of Burroughs & Wellcome's serum) were not begun until the thirteenth day of the disease, when the patient seemed moribund. Two injections were given on each of the first two days, and one thereafter until eighty cubic centimetres in all had been administered. Improvement was at once apparent and continued steadily. Three days after beginning the use of the serum the patient sat up in bed to eat her dinner. Insomnia was a marked feature of the case.

Impaction of a Bean in the Air-passages: Tracheotomy; Expulsion through the Wound; Recovery. By Bruce Hamilton.

Journal des praticiens, June 30, 1900.

Orthostatic Albuminuria.—M. Tessier says this form of albuminuria is usually due to vesical catarrh, and the urine does not contain casts. This "postural albuminuria" is not a form of Bright's disease, and in the morning urine usually no trace of albumin is found. The treatment is hygienic and balneological. Rest is an important factor in the cure. Milk diet is not necessary.

Bronchitis and Hæmo-bronchitis in Uræmia. (Review.) By M. Huchard.

The Slow Syphilitic Pulse. — M. Degny says that syphilis is capable of slowing the heart and evoking the Stokes-Adams syndrome in three ways: 1. By the production of bulbo-cerebellar gummata. 2. By causing an arteriosclerosis or arterial lesions in the bulb. 3. By syphilitic deposits compressing the pneumogastric at some point in its course.

Le Progrès médical, June 30, 1900.

Treatment of Varicose Ulcers.—M. Clado says the antiseptic treatment alone, by means of powdered phenic acid dusted on the ulcer two or three times daily, will often lead to cure if there has not been too deep or too great a loss of substance. Chlorine water is efficacious if the ulcer is atonic. Compresses of it are laid over the ulcer and covered with gutta-percha tissue, being renewed three or four times daily. When cicatrization begins, diachylon ointment may be employed. Passive congestion by means of a rubber constrictor is sometimes useful. Hard, indolent ulcers may be excised by a circumferential cut, the incision going down to the periosteum. Skin-grafting may have to be resorted to in the last instance, and may be of three varieties: epidermic, dermo-epidermic, or cutaneous. Amputation is rarely found necessary.

Gazette hebdomadaire de médecine et de chirurgie, July 1, 1900.

Chronic Entero-peritoneal Tuberculosis.—M. Maurice Patel reports the case of a young man of twenty who suffered from a chronic tuberculosis of the intestine and peritonæum, and of the mesentery as well, resulting in dense adhesions of the small intestine. The affected intestine was excluded, latero-lateral anastomosis being made between the two healthy ends of the gut, and the patient made a complete recovery.

Acute Articular Rheumatism in Infants.—M. Albert Delcourt, in reporting such a case in a child of eighteen months which recovered, speaks of the difficulty of diagnosis and of the prominence of the cardiac signs, which may, indeed, be the first signs of the disease. Salicylate of sodium is the most efficacious drug both in combating the rheumatism and in preventing heart complications. Fifteen grains may be given to a child of two years, thirty grains to children between two and five years of age, and to older children, forty-five to sixty grains in the course of a day. The drug must be stopped as soon as signs of collapse appear.

Gazette hebdomadaire de médecine et de chirurgie, July 5, 1900.

Operative Asepsis.—M. A. Broca, in an argumentative paper, protests against the use of gloves in operation as tending to lead to carelessness in the sterilization of the hands.

La Presse médicale, June 30, 1900.

Urinary Toxicity. By M. Hallion and M. Carrion.

Treatment of Lupus by Interstitial Injections of Ether.—M. Émile Sergent says this is a simple, radical, and easy method of treatment. It is contraindicated when the area surrounding the lupus is inflamed or when there is much fibrous tissue present, as in an old lupus. The official sulphuric ether is employed, the syringe and skin first being made aseptic and neighboring hairs being cut away. The amount used varies with the size of the affected area. After the injection, the puncture of the needle is covered with collodion. Four to five injections, made every second day, will usually be sufficient to effect a cure. The scar is not offensive. The procedure is painless, is not bloody, and is not dangerous when performed aseptically.

La Presse médicale, July 4, 1900.

Colon Bacillus in Dysentery.—M. H. Roger, as a result of his studies, believes that a particular species of colon bacillus is the causative agent of dysentery, the one which he had under cultivation being able to evoke diarrhœa and elevated temperature. Its toxines are arrested by the liver.

Danger of Injuring the Sphenoidal Sinus in Resection of the Gasserian Ganglion. By M. O. Jacob.

Centralblatt für Chirurgie, June 30, 1900.

A Modification of the Murphy Button for Use in Gastro-enterostomy. By Dr. Heinrich Hildebrand.—The author speaks appreciatively of the Murphy button, but remarks that it has one drawback, that of occasionally slipping bodily into the stomach when its work is finished, there to set up such an amount of irritation as to call for its removal by gastrotomy. To obviate this, he has made a slight modification of the button, simply the device of having one of its pieces made a little smaller than the other. The small portion is inserted into the stomach and the large part into the intestine. When it becomes loose, the small gastric segment can easily pass out into the intestine, but it is almost impossible for the larger intestinal part to pass into the stomach.

Centralblatt für Gynäkologie, June 16, 1900.

On Distention and Rupture of the Cervix. By Dr. Hammerschlag.

A Contribution to the Treatment of Eclampsia. By Dr. Popescul.—In cases in which labor can not be terminated, and in those in which the completion of delivery is not followed by cessation of the convulsions, the author has observed surprisingly good results from the employment of bromidia by the rectum in doses of a teaspoonful or less. After a few enemata have been administered, it is often well, he says, to give one large dose of morphine.

Deutsche Medizinal-Zeitung, July 2, 1900.

Hydrotherapy in Myxœdema.—Dr. Karl Schütze reports a case in which the baths at Borlachbad effected a cure.

Santonin Poisoning in Three Members of a Family.—Dr. Max Heim reports these cases in which a mother, without medical advice, gave a delicate seven-year-old girl eight santonin pastilles, each containing three grains and a half. The other children, five and three years old respectively, received each six of the pastilles, but did not show as severe signs of intoxication as the oldest child. They all recovered after several days, but the headache, which was one of the first signs of the poisoning, continued for ten days.

Wiener klinische Rundschau, July 1, 1900.

Latent Tuberculosis of the Tonsils.—Dr. L. Réthi says this condition is not rare. The infection comes from the inspired air, from the sputum of a tubercular lung, or by way of the blood or lymph channels in a tubercular subject. Its great danger is the possibility of spreading the disease to other parts of the body, especially the lungs and meninges. The treatment is the complete removal of the tonsils.

Splanchnoptosis. (Conclusion.) — Dr. Friedrich Kraus advises that when a ptosis of the abdominal organs seems to be about to develop, there being no pendulous abdomen, a binder be worn which shall encircle the abdominal wall at the level of the umbilicus. As a prophylactic measure this will often be of service.

Disturbances of the Upper Respiratory Tract in Severe Scarlatina. (Conclusion.)—By Dr. E. Kronenberg.

Wiener klinische Wochenschrift, June 28, 1900.

A New Tracheal Cannula. By Dr. R. Gersuny.

Operative Treatment of Fractures of the Clavicle and Nose.—Dr. Konrad Büdinger operates upon acromial fractures of the clavicle, uniting the ends by a drill peg, which is removed in fourteen days. This has the advantage of leaving no foreign substance, like silver wire, in the closed wound, as when the bone is sutured, and the results are equally good. In fractures of the nasal bone of the horizontal and perpendicular variety, he makes an incision in the median line for the entire length of the fracture, and carefully readjusts the broken pieces. The cosmetic results are good, he says.

Wandering Gallstones.—Dr. Robert Porges relates a case of a woman who had persistent fistulæ in the upper femoral region of the right side. At the operation, which was finally undertaken, a large number of small biliary calculi was found. After their removal the fistulous openings closed.

Berliner klinische Wochenschrift, June 25, 1900.

Cerebral Anatomy and Psychology. By Dr. L. Edinger.—(Continued article.)

Laws Governing Insurance against Sickness. By Dr. O. Mugdau.

Complete Transposition of the Viscera.—Dr. Arthur Barbo reports a case in which all the thoracic and abdominal viscera were displaced or transposed, and in which the patient was the subject of an aneurysm of the descending arch of the aorta. He attributes the aneurysm to a rupture of the intima of the atheromatous aorta which, in its turn, was occasioned by a fall.

Relation of the Medulla to the Nervous System. (Conclusion.)—By Dr. Ludwig Bruns.

Prognosis of Glycosuria and Diabetes. (Conclusion.)—Dr. Felix Hirschfeld says that in mild cases of diabetes, especially when the general functional disturbance is not severe, the prognosis is better than is usually believed; a relative cure is to be expected when from eighty to eighty-five per cent. of the ingested carbohydrates is consumed; these elements are less easily assimilated when furunculosis or gangrene is present; improvement in the amount of sugar excreted is indicated by diminished urination, and *vice versa;* the cardiac weakness often seen in diabetes may be improved by a diminution, but not total exclusion, of carbohydrates in the food.

Riforma medica, June 19, 20, and 21, 1900.

Fear as a Cause of Death in Children with Slight Burns. By Dr. Emilio Cioffi.—The writer reports two cases of children who sustained burns that were not sufficiently severe to have caused death. These children, according to Cioffi, died of fright. He reviews the cases of death from fright reported in literature and discusses the various theories of death from slight burns. Fear, he says, is man's second nature. It is more natural and more spontaneous than courage. Even the most courageous animals stand in fear of a more powerful adversary. Courage is artificial, cultivated, and ultimately the product of fear. His conclusions are as follows: The various theories concerning death from burns are not sufficient to explain the deaths of children from comparatively slight burns which he has observed. The only effect upon the nervous system that such an accident can have is the occurrence of a paroxysm of fear. The special susceptibility of the child's brain to severe shocks may produce convulsions, followed by depression, paralysis, and death. In some cases psychic shock is followed by gradual depression of the nervous energy of the body, in others death is due to paralysis of the vagus from specific effects on the centres. The effect of fear is so intense in children in the absence of judgment and will that the first stimulus is probably continued by the presence of the pain of the burn. Fear is more apt to produce these effects in neuropathically predisposed children. The only treatment is, so far as possible, to remove the original psychic impression. The medicolegal importance of the subject is not appreciated as fully as it should be.

Gazzetta degli ospedali e delle cliniche, June 10, 1900.

Certain Clinical and Anatomic Facts that Characterize Organic Lesions of the Mitral Valve. By Dr. G. Bassi.—The writer brings out two new facts concerning mitral lesions. He found that there is a slight interval, marked by a lengthening of the descending arm of the pulse wave on the sphygmogram, in the presence of reduplication of the second sound of the heart, a fact that denotes the lengthening of the ventricular diastole. This lengthening does not occur at every pulsation, but reappears in every third or fourth pulse wave. The author has noticed that in all cases of mitral stenosis the anterior portion of the mitral valve is longer than normal, and that a still greater elongation of the anterior leaf of the valve is found in cases that exhibited marked symptoms of mitral stenosis during life, but in which the autopsy did not show the characteristic narrowing of the valvular orifice. He concludes from this that in cases of lengthening of the anterior leaf of the mitral valve we are justified in making a diagnosis of mitral disease, and that such lengthening constitutes a definite lesion of the valve.

A Case of Transmission of Measles from Mother to Fœtus. By Dr. T. Fiori.—The patient was attacked with a severe type of measles a few days before the termination of her pregnancy. The labor was uneventful and the symptoms of measles disappeared on the first day of the puerperium. The child was a normal full-term fœtus except that he showed the typical eruption of measles on his face, and had conjunctivitis and rhinitis. The mucous membrane of the mouth was normal, and there were no Flindt-Koplik spots. On the second day the exanthem spread over the rest of the body; the temperature was 38.1° C. Three days later the eruption disappeared, and the temperature fell to 37.2° C. Desquamation followed, and a week later the infant was perfectly well. The puerperium was normal in all respects. The infection was mild in the child, while in the mother it had been of the severe scarlatiniform type.

On the Effects of Mitral Insufficiency upon Pulmonary Tuberculosis. By Dr. J. Silvestri.—The patient was a woman, aged twenty-four years, who had a well-developed attack of phthisis. In November, 1895, she became ill with influenza, but recovered. A mitral insufficiency remained after this last illness, and the patient rapidly improved, so far as the general conditions and the tuberculous lesions were concerned, without any treatment whatever. The writer concludes that the remarkable improvement of the phthisis was due to the development of the mitral lesion. He compares the hyperæmia of the lungs due to mitral regurgitation to that produced by the application of Bier's method of treatment to tuberculous joints. The occurrence of pulmonary tuberculosis among patients with valvular insufficiency of the right side of the heart is very rare, while it is frequent in those with pulmonary stenosis.

The Palmo-plantar Sign in Typhoid Fever. By Dr. S. Pascoletti.—The writer reports the case of a woman who had an attack of typhoid fever that lasted four weeks and was accompanied by peritoneal and pleuritic complications. On the second day of the disease the writer noticed a yellowish-red spot on the sole of each foot of the patient. These spots were irregular in outline, about the size of a five-lire piece each, very distinct from the surrounding skin, and situated symmetrically on the prominent part of the soles, over the heads of the first and fifth metatarsal bones. The spots were very painful on pressure, but there were no signs of inflammation. The palmar sign was absent in this case. While the writer can not add anything new to the question of the plantar-palmar sign in typhoid, he thinks investigation will show that these phenomena are intimately connected with the pathogenesis of the disease.

Gangrene of the Lower Extremities in Pneumonia. By Dr. A. Mori.—The patient, a man aged sixty-six, was admitted with a double fibrinous pneumonia of the inferior lobes. The heart and blood-vessels were normal, and there were no signs of arteritis. The pneumonic process was severe and the convalescence somewhat prolonged. He noticed one day that there was a feeling of weight in his feet and that they began to swell. The œdema spread above the ankles and severe lancinating pains followed, radiating from the dorsum of the foot toward the toe. The skin on the right foot became bluish-brown in color, the surface temperature subnormal, and the sensibility of the part disappeared.

Moderate massage and warm antiseptic compresses decreased the œdema on the left side, but on the right foot the gangrene spread further and invaded the whole metatarsal region. Chopart's amputation was performed with good result.

A Common Manifestation accompanying Helminthiasis. By Dr. D. Papi.—The patient was a girl, aged eighteen months. It was observed that the respiration was interrupted from time to time by periods of apnœa, which varied in duration. When the respiration was resumed the inspiratory movements were weak at first and gradually grew stronger, attained their normal range, and then gradually grew weaker until another period of apnœa supervened. The child had passed a round worm by the mouth on the preceding day. A purgative and anthelminthic were administered and the respiration became more normal on the following day. The child was cured after two additional doses of the anthelminthic and after having passed twenty-seven worms.

The author believes that this peculiar symptom was due to the irritation of the cortical centres, which resulted in an increased respiratory inhibition, thus producing the type of breathing described by Cheyne-Stokes.

Vratch, May 27, 1900, O. S. (June 8, N. S.).

Radical Cure of Local Infections by Injections of Five-per-cent. Solutions of Phenol. By Dr. N. A. Nemtchikoff.—The author reports the results of this treatment in a number of cases of mild and severe infections—*e. g.*, abscesses, erysipelas, lupus, etc. His conclusions are as follows: If used in moderate quantities, the solution of carbolic acid may be employed without fear of producing untoward effects, and will be found to be an efficient bactericide in local infections. The interstitial injections act as antiphlogistics and prevent the development and the spread of toxic products. The carbolic acid arrests suppuration and thus saves the organism from the waste of tissue that accompanies the formation of pus. It renders the pus already present thin and easily absorbable. The injections produce complete anæsthesia of the painful parts, and the pain does not return for three or four days. The method is exceedingly simple and inexpensive. It saves waste of tissue and unsightly scars, and may also be used to prevent complications in cases of severe phlegmonous inflammations and to allay the pain of severe wounds or compound fractures.

A Case of Empyema in a Boy, Aged Two Years, Treated by a Modification of Levascheff's Method. By Dr. A. A. Kissel.—In tuberculous pleurisies and in very young or very weak children the ordinary operation of resection of one or more ribs is not often successful. The author thinks that the presence in the chest wall of a wound that gives more or less trouble is a depressing element in these children. He tried the method of Levascheff in such cases with the idea of avoiding the operation and the open wound. This method consists in replacing the purulent exudate in the pleural cavity with some neutral fluid. The present patient was a boy with empyema who was in such a condition on admission to the hospital that an operation was not to be thought of. There was a family history of tuberculosis. The treatment consisted in the administration of guaiacol and of cod-liver oil, and of successive aspirations of the pus in the chest, followed by the injection of warm normal salt solution into the pleural cavity. This was done four times on the same day, and the last time only a turbid fluid was obtained on aspiration. From this day on the patient rapidly got well.

Oil of Soy Bean and its Chemico-sanitary Relations. By Dr. A. F. Nikitine.—The soy or soja is a small herb of the bean family (*Soja hispida* or *Glucine soja*) whose habitat is in China and India. The beans contain 16.76 per cent. fat—a greater quantity than any other bean used as food. In China and Japan the oil is produced in considerable quantities, principally for illumination. The plant can easily be cultivated in Europe. The residue of the beans after pressing out the oil forms a very valuable fodder for cattle. Soy-bean oil resembles olive oil, but is very much less expensive. It has not been used extensively as a food as yet, and there are no trustworthy data as to its nutritive value.

Vratch, June 3 and 15, 1900.

Concerning "Bruit de Galop" as heard on Immediate Auscultation. By Dr. V. P. Obraszoff.

A Note on Nirvanin. By Dr. M. S. Uvaroff.—The writer concludes his study of the effects of this drug as follows: In a certain number of cases the following symptoms may be observed: unequal dilatation of the pupils, acceleration of the heart's action, and an increase in the secretion of tears and of the saliva. The dilatation of the pupil is probably due to stimulation of the sympathetic nerve. The other symptoms can also be produced artificially by irritation of the sympathetic. Hence it is probable that nirvanin has a selective action on the sympathetic nerve.

Cases of Malarial Infection Resembling Surgical Conditions. By Dr. N. A. Bogoraz.—Malarial infection occasionally is characterized by appearances that make us think of certain surgical affections. It is only the repetition at regular intervals of the attacks, or the presence of certain typical symptoms of malaria that would make us suspect the true nature of such cases, and would suggest the examination of the blood for the plasmodium. The writer reports three cases of this kind. In the first case the paroxysms of malaria resembled recurring erysipelas of the face. The patient would get marked swelling and redness of the face, headache, fever, and delirium. In some places there was a distinct line of demarcation between the reddened area and the normal skin. After two days there was a profuse desquamation of the face and the fever subsided. Six days later he had another attack, with the same symptoms, and it was noticed that the patient was well every morning, but at 7 P. M. the temperature would rise and the erysipelatous blush would return. This suggested malaria, and plasmodia were found in the blood. The patient recovered in a short time. The other two cases were instances of malarial herpes in an unusual place—on the mucous membrane of the nose. The fever was of an intermittent type in these cases.

Vratch, June 10 and 22, 1900.

On the Reserve Light for Study at Home and in School. By Dr. R. A. Katz.—The author emphasizes the fact that subjective judgment is not to be trusted in determining the question whether a sufficient amount of light falls upon the paper. To determine this question it is necessary to employ some device that will give us an idea of the amount of "reserve light." The author's apparatus for this purpose consists of pieces of "smoky" glass that will only allow one twenty-fifth of the light to pass through.

If one can distinguish ordinary writing, etc., through these glasses at the distance at which one is accustomed to read in the room to be tested, the room contains sufficient light for the work to be done. The author advocates the use of this simple device for testing the amount of reserved light in schools, and in places where a great deal of work is done with the eyes.

Naphtha, its Chemical Properties and its Effect on Cold-blooded and Warm-blooded Animals. By Dr. I. D. Kupziss.

A New Method of Determining the Amount of Nitric Acid in Water. By Dr. N. N. Kostyamine.

Soft Chancres in the Rectum. By Dr. I. B. Zeldovitch.—A case of soft chancres in the rectum in a married woman, aged thirty-two. Her husband had contracted a chancroid and infected her by a coitus *per anum*. There were three chancroid ulcers on the mucosa of the rectum. The treatment consisted of irrigations with boric-acid solution and dusting with iodoform. The patient recovered without any cicatricial stenosis of the rectum. The author believes that chancroids of the rectum are more frequent than is generally supposed, as but few patients have the courage to admit the mode of origin of these ulcers.

Journal of Obstetrics and Gynæcology, St. Petersburg, April, 1900.

Cure of Prolapsus Recti by Means of Restoration of the Perinæum. By Dr. Ott.

Anatomic Changes in the Gravid Tube in the Region of Attachment of the Ovum. By Dr. K. Ulesko-Stroganova.

On the Question of Adherent Placenta. By Dr. Th. A. Alexandroff.

Experiments in Transplantation of Ovarian Tissue; Changes in Ovarian Tissue under Various Conditions. By Dr. V. V. Preobrajensky.

On the Question of the Duration of Pregnancy, Labor, and the Puerperium in Young Primiparæ. By Dr. N. P. Mariantchik.

Albany Medical Annals, June, 1900.

The Preparation of Tuberculin, its Value as a Diagnostic Agent, and Remarks on the Human and Bovine Tubercle Bacilli. By Dr. Veranus A. Moore.

Primary Simple Acute Endocarditis. A Clinical Observation. By Dr. Henry Hun.—In ordinary articular rheumatism the micro-organism, which is supposed to be its cause, after its entrance into the body, has a long route to traverse before it becomes localized, in consequence of slight traumatism or greater vulnerability, in some special joint or joints. It seems quite possible, says the author, that this micro-organism might be arrested in its course through the body and become primarily localized upon a cardiac valve rendered vulnerable by an overstrain from work or from too boisterous exercise. It was the view of our fathers in medicine that rheumatism might in exceptional cases commence in the heart and later manifest itself in the joints. From this view many of the modern text-books of medicine have departed, at least in regard to the acute form, with scarcely adequate cause, the author thinks. In the case reported careful examination failed to find any involvement of the articulations, there was no rusty sputum or other characteristic sign of a central pneumonia, and the transitory moist râles in the left axilla were not heard at the very outset of the disease and were more likely to be caused by the already disordered cardiac action than to have any causal connection with it.

Bulletin of Johns Hopkins Hospital, June, 1900.

Notes on the Plague in China and India. By Joseph Marshall Flint.—The author describes the condition in

Hongkong in regard to plague, the environment of the Chinese inhabitants, and the measures officially adopted to combat the disease. Bad as is the sanitary condition in the Chinese quarter of Hongkong (the European districts he describes as being "from a sanitary point of view probably unexcelled in any city in the Orient"), the author says that in comparing it with Canton there is something almost Utopian about it. The epidemic, having once begun, was combated by the following measures: 1. Removal of the sick and dead. 2. Temporary segregation of those exposed while the premises were being disinfected. 3. Cleansing and disinfection of "infected premises." 4. Disinfection of clothing. 5. General cleansing and lime-washing of all tenement houses. 6. House-to-house visitation. 7. Disinfection of public latrines. These measures, he says, were all carried out with a considerably greater degree of success than attended the similar ones established later in India. This was due partly to the fact that the Chinaman is more easily controlled by the sight of power than the Hindu, and partly because the customs offended by the plague regulations are in China neither national nor religious, but merely personal. As a general example of native filth, the author says: "In disinfecting some infected premises one day Dr. Lowson told us that in one room the inspectors were forced to dig through two feet of dirt and human excreta to reach the floor." The extent of overcrowding is shown by the fact that "in one poorly ventilated tenement from thirty to forty natives are huddled together with less than a hundred and fifty cubic feet of air space per capita." The plague hospitals are described, and the curious fact displayed that "both in Tung Wah Hospital and Ken-Kennedytown Hospital, which is infested with them, yet aside where those who elect may receive native treatment." As to the disease itself, the author states that "epidemics begin in the bubonic form, and when the epidemic is at its height and the mortality is greatest, changes to pneumonic plague, and finally in the defervescent stage dies off again in the bubonic type. This has occurred regularly in Hongkong, and has been noted in the many epidemics that have occurred in India by the plague authorities there." While rats and fleas are undoubtedly in causal relation to the plague in man, the author says that flies and mosquitoes do not seem to play an important rôle, and instances the area about Kennedytown Hospital, which is infested with them, yet "no one of the attendants there was ever affected." In human beings abrasions of the skin, the mucous membranes of the respiratory tract, and, to a lesser degree, of the alimentary tract, are said to be the principal channels of entrance. The disease may exist in any of its forms alone, or two or even more may simultaneously complicate each other in the same patient. In the simple bubonic type the location of the bubo indicates that the portal of entry of the infection occurred in the area drained by that set of lymph glands, but it is also not uncommon to find glands enlarged *en échelon*. Thus in one group of the Hongkong cases the femoral, inguinal, iliac, and lumbar groups were all enlarged and hæmorrhagic.

The prevalence of buboes in the lower set of lymph glands is due to the fact that lower class natives in China and India go barefoot. The men of the Shropshire regiment on plague duty in Hongkong, wearing shoes but with open trousers, were all attacked; yet while on similar duty in India, but wearing puttees, not one case was reported. The "plague *facies*" is referred to as consisting of a mixture of anxiety, cyanosis, and dyspnœa. Dr. Lowson says: "Generally speaking, there is something indescribable in the face of the plague-stricken which seems to help your diagnosis—an expression as if the sufferer himself knew all about it, and his inner consciousness had left its mark upon his features." The tongue is more heavily coated but clearer about the margin than in typhoid, the coating soon turning black. Vomiting of a blood-stained fluid is a frequent initial symptom and is due to the action of the plague toxine in the mucous membrane of the stomach, which is nearly always injected and ecchymotic post mortem. Intense prostration, dicrotic pulse, and cyanosis are very common. The heart needs constant stimulation. The plague bacillus is often found in the sputum. Œdema of the glottis and extensive laryngitis have been noted. Albuminuria is constant but slight. The disease runs its course in five or six days, though fever may remain high for weeks. Death from heart failure is usual. No unsuspicious cases of reinfection are on record, though relapses are frequent.

There are many points of difference between the plague in China and India, principally due to the respective characters of the natives. In India the plague is increasing but "the colonial government is doing all in its power to stamp out the disease, and no experiment is left untried that offers the slightest hope of solving this very serious question. . . . In India the plague authorities have to fight against the bigotry, opposition, and animosity of the native, who gives far more trouble to the sanitary authorities than his Celestial neighbor. Here exist the ideal conditions for the spread of any disease—namely, overpopulation, overcrowding, malnutrition, unhealthy environment, and crude and unclean methods of living. Under these conditions the energy required to fight the plague in India has been tremendous because of the inertia of the vast population, which even looked with disfavor on the measures meant for its good." The various efforts to obtain a plague antitoxine are described. One of the difficulties in India is well illustrated by the fact that large numbers of natives, especially Hindus, will not submit to inoculation with Haffkine's serum because the fluid contains meat, thus offending their most cherished religious principles. Efforts are being made to procure a medium for the growth of the bacilli from a substratum gluten and other substances free from meat extracts. The results of Haffkine's inoculations at Hubli and elsewhere, which have been already editorially commented upon in this *Journal* (October 7, 1899), are detailed. A table shows conclusively in the inoculated and uninoculated, respectively, the enormous percentage in favor of the inoculated, of deaths to cases, the advantage varying after the first six weeks of the test (during which the epidemic was not severe and the number of the inoculated low) from a minimum advantage of sixty-four per cent. to a maximum of cent per cent.!

A Study of Christian Science. By Dr. Harry T. Marshall.—The author, after a very exhaustive and clear critical examination of Christian Science, both as observed in operation and officially presented in science and health, sums up as follows: We see that the head of this movement is a woman, considered by some to be the victim of a form of insanity known as paranoia, and whom many more consider simply as an impostor, growing rich at the expense of her deluded followers; a woman evolved from homœopathy, claiming the powers of Divinity. We see that this woman has built up a system showing the utmost crudeness of construction, full of inconsistencies and self-contradictions; displaying, at every turn, the author's ignorance of the meanings of words, her confusion of ideas and complete inability to reason logically; denouncing as false the findings of all human experience, and arrogantly vaunting herself as the only human being with true knowledge, boasting on every page of her book of her superior wisdom. We see the members of this school making the most extravagant claims of their power over disease; we see them in the name of religion standing passive at the bedside of suffering infancy, and attempting to undo all that has been accomplished by millions of earnest workers and thinkers to better the conditions of human life. On the other hand, we see this sect growing up like a mushroom, thousands of rational people accepting Christian Science *in toto;* we see among its followers judges, lawyers, doctors, ministers, business men, and people of all classes, devoting to it their time, their enthusiasm, and their money. We see people, whom it would be ridiculous to call insane, refusing any other assistance in their most serious illness and relying upon the efficacy of Christian Science to save their children from the grave. How can we account for this curious condition? Whence is the strength of Christian Science? How is its existence explainable? If we try to account for its immense following and its strength by the intrinsic merits of its teaching and work, we must remain unsatisfied on account of the insufficiency of the motive. Christian Science appears to have no points in its favor that are original or peculiar to itself. The idea that disease is a work of evil, or "of mortal mind," is as old as history. This idea of sin as a work of the devil is seen in the histories of all the ancients; it occurs in the Bible; it was the thought that prompted the treatment of insane people in the olden times when they were put in madhouses and frightfully abused in order to drive out the evil spirit, and evidences of the same idea may be seen nowadays. Again, the most attractive feature of the Christian-Science religion is the manner in which its votaries insist upon the healthfulness and necessity of cheerfulness, composure, and self-forgetfulness. Their religion teaches them to forget their own sufferings and distresses and to take an interest in outside things. But this can not account for the strength of Christian Science, for it is no new doctrine, and is being brought more and more to the front as an essential part of personal religion by the churches throughout the land. Again, the one idea brought forward by the medical teaching of the cult is the efficacy of mental suggestion as a therapeutic agent. But this is by no means new. There is no one who denies its utility; it is employed, consciously or unconsciously, to a very wide extent, while one branch of it—hypnotism—is steadily growing in importance as a therapeutic agent.

But if we can not find the *raison d'être* of Christian Science in its intrinsic qualities, how is it explicable? This brings us to the consideration of a curious phenomenon that has occurred from time to time since the foundation of society, consisting in the rise and enormous popularity among reasoning people of ideas that are utterly irrational, or that contain but a grain of reason. The same phenomenon was illustrated by the original spread of homœopathy, of Thompsonianism, of Perkinism, of theosophy, of Schlatterism, and by the history of many more popular fallacies, defunct or passing. There are certain factors that may be considered to afford a particularly fertile medium for the growth of Christian Science. 1. There are always many in the community whose tendency is to go to extremes in adhering to their ideas. A person of this class, being convinced of the truth of that portion of the Christian faith which teaches the universality of God, will apply his belief blindly to every case, without regard to any evidence that fact and reason may oppose. 2. The great improvements in the material comforts of modern life, and also the great developments of the natural sciences, with their rigid demonstration of material origin and causation, are at least in part responsible for the materialism so widely pervading modern thought. It is only natural that there should be a reaction from this materialism and from its causes, to the extremes of idealism. 3. There are always people eager for something new, seeking for miracles and ready to believe it possible to obtain that complete mastery over Nature that Faust despaired of acquiring after a life of endeavor. The chief basis for the growth of Christian Science, however, is the same that underlies every popular pseudo-science. Oliver Wendell Holmes outlines very clearly the factors concerned, showing (*a*) how easily abundant facts can be collected to prove anything whatsoever; (*b*) how insufficient "exalted wisdom, immaculate honesty, and vast general acquirements" are to prevent an individual from having the most primitive ideas upon subjects out of his line of thought, and, finally demonstrating "the boundless credulity and excitability of mankind upon subjects connected with medicine." Furthermore, Christian Science is partly a religious mania (though the title of the text-book shows the relative importance of its medical and religious doctrines). A further source of its strength lies in the confidence with which the teacher assures her followers that they are the only profound thinkers in the world, and makes them believe that the adoption of her ideas is a mark of superiority separating them from the ordinary masses.

As to the future of Christian Science, the author predicts that "our generation will see the decadence of Eddyism and the rise of another pseudo-science just as impossible as Christian Science and just as powerful." The only measures counseled are: 1. To insist that the Christian Scientists report to the health department all births, deaths, and contagious disease, and that, in the latter class of cases, proper means are taken to protect the community. 2. To secure for small children the proper protection from Christian Science extravagances. 3. The regulation of medical practice in general by an attempt to limit the right to treat the sick to those who have given satisfactory evidence that they possess a knowledge of the conditions of health and disease, and who can show that they possess the requisite training. These objects are to be attained by legislation to debar the ignorant from practice, and by prosecuting in the courts those who practise without the proper qualifications.

Miscellaneous.

Anchylostomiasis and the Life History of Anchylostomum Duodenale.—Dr. H. A. Alford Nicholls (*Journal of Tropical Medicine,* May), as a result of careful observations in the Leeward Islands, concludes that (1) the worms in their larval stages are intimately connected with the soil; (2) the adult worms develop from larvæ after the larvæ are introduced into the digestive canal of man; (3) the worms act as minute leeches, extracting blood and causing little bleeding points by their bites; (4) owing to their minuteness a multitude of the worms are necessary to produce any serious deterioration of the vital organs; (5) the worms can not multiply within the body, whence in most instances fresh infections are necessary to induce disease; (6) as the larvæ are developed in the soil from eggs deposited thereon in human dejecta, certain obvious and simple sanitary measures are all that is necessary to arrest the propagation of the parasite, and therefore to rid any district of anchylostomiasis. The author considers that because some slight evidence of anchylostoma has been found in the fæces, the blood often escapes investigation, and an anæmia which is really due to malarial poisoning is attributed to anchylostomiasis. Earth-eating is a common symptom of the disease. Thymol is recommended as a remedy, but in order to kill the worms and cause their discharge, large and occasionally dangerous doses of the drugs have to be taken.

Post-marital Amblyopia.—Jonathan Hutchinson, F. R. S. (*Archives of Surgery,* vol. iv, p. 200; *Medical Review,* June), reports three cases of young, robust men who developed sudden amblyopia amounting to almost total blindness within from ten days to three weeks after excessive sexual intercourse. "These three cases, so remarkably alike, seem to show that this form of amblyopia, like that due to smoking, is usually recovered from and is not liable to relapse. It differs from tobacco amblyopia in that it is much more rapid in its development, and in that it passes to a much higher degree. Tobacco amblyopia usually requires months to develop, and rarely approaches blindness. Recovery from it is also much slower. In both forms, however, there are possibly a few cases in which the disease advances to complete and permanent blindness. Possibly this happens when the cause is never suspected and never removed. The cases under notice are not as a rule attended by any failure of sexual power, nor are the tobacco cases attended by any distaste for smoking or consciousness of the patient that it is injuring him." This affection Mr. Hutchinson terms "post-marital amblyopia." Possibly the failure of sight sometimes observed after parturition is similar. Rapidly produced and all but complete blindness without visible changes, and rapid and complete recovery, are features of all. Sexual excess under any circumstances may induce failure of sight and derange the nutrition of the eyeball; but the post-marital form of amblyopia is quite distinct, and never occurs except in those newly placed under conditions tempting to excessive indulgence.

The Relation of Infectious Diseases and Appendicular Inflammation.—Le Clerc (*Journal de médecine,* April 25th; *British Medical Journal,* June 23d) reports a case showing some relation between infectious disease and appendicular inflammation. The patient was a child aged eleven, who had never previously been ill. For four days there had been symptoms of invasion of some specific fever, while from the first day of the illness there were pain and tenderness in the region of the appendix, especially in McBurney's point. The pain and tenderness disappeared on the appearance of a typical measles eruption. Other cases have been recorded recently of scarlet fever, influenza, varicella, typhoid, and small-pox, in which there have been symptoms and signs of appendicular inflammation. In some cases inflammation of the vermiform appendix has been discovered post mortem, and in the present instance the writer believes that there must have been some inflammatory swelling of the solitary follicles of the appendix equivalent to what is met with in other cases; and as measles is known to affect lymphoid tissue this explanation is probably correct.

The Chorea of Sydenham.—Dr. D. Brochu (*Bulletin médical de Quebec,* April), as the result of study of a remarkable case, arrives at the following conclusions: 1. Sydenham's chorea, usually so mild a disease in children, becomes more and more severe as the age of puberty is left behind, and may even terminate in death. 2. The chorea is a neurosis of development and attacks the entire cerebro-spinal axis. 3. It is often associated with the accidents of acute articular rheumatism. 4. It occasionally follows certain infectious diseases, but is most frequently the result of nervous causes, violent emotions, hereditary neuropathy, or the taint of degeneration. 5. The nervous temperament and an hereditary or degenerative taint are conditions predisposing to recurrence and grave forms of the disease, and favor, moreover, associated psychoses. 6. Extreme agitation, generalized convulsive movements, complete insomnia, fever, and acceleration of the pulse are symptoms which should give rise to a guarded prognosis, and are often the precursors of a fatal termination. 7. The mental state especially—delirium or various forms of hallucinations of sight or hearing—regulates the gravity of the prognosis in chorea (Dieulafoy). 8. The therapeutics in the acute forms accompanied by great agitation is very uncertain. Opium, chloral, chloroform, and antipyrine are the least doubtful medicaments; but physical agents must not be forgotten, especially the hydrotherapy of hot water, which can render most valuable aid.

Intestinal Sand.—Dr. Conrad Georg (*Physician and Surgeon,* May), reporting a case of this rarely recorded disease, concludes as follows: The organic material which has been found in the majority of the cases reported as intestinal sand is vegetable sclerenchyma. The variety of the sclerenchyma depends on the nature of the food taken in the diet. True intestinal sand, like biliary or renal sand, is formed by a deposit from the secretions of the living body, and consists largely of the salts of lime, magnesium, and ammonium; on the other hand, most of the so-called intestinal sand consists largely of the concretions of vegetable sclerenchyma present in the residue of undigested vegetable food, and contains a secondary deposit of a small amount of inorganic salts, including a few siliceous particles.

Vaccinal Immunity and Intra-uterine Transmission.—M. Piery (*Lyon médical,* May 13th), as a result of his researches, arrives at the following conclusions: 1. Vaccinal immunity frequently exists at birth. The author has noted it in sixty-one per cent. of cases. 2. Vaccinal immunity is observed almost exclusively in the newly born of mothers themselves immune. 3. The vaccinal immunity of the infant is due to intra-uterine transmission of the immunity of the mother. 4. The intra-uterine transmission of vaccinal immunity is more frequent when the maternal immunity is of long standing than when it is more recent, as, for instance, in the last fortnight of pregnancy. In the former case it attains about seventy per cent., while in the latter it reaches only about twenty per cent.

The Serum Treatment of Tuberculosis.—Dr. C. R. Spicer (*Medical Fortnightly,* June 25th) records the case of a young lady, eighteen years of age, whose paternal uncle and aunt died of tuberculosis, and one of whose sisters also had tuberculosis. There was slight rise of temperature; menstruation was irregular and scanty. Inspection showed loss of movement in the left mammary region, apex beat normal; chest symmetrical and somewhat emaciated. Palpation gave increased vocal resonance over left lung, and tenderness on deep pressure over the spleen and epigastrium. Percussion showed marked dullness over the left infraclavicular space and mammary region. Auscultation showed increased vesicular murmur over the right lung and the left supraclavicular space. The dullness in the left mammary region was very intense, amounting almost to flatness. There was no change in its upper line on change of position, nor was there any displacement of the apex beat. The temperature on April 1st rose to 103° F. It varied during the month from 101.6° to 105.2° F. The dullness extended to the left infraclavicular region; moist and dry râles were present in both lungs; there was profuse expectoration, in which the bacillus of tuberculosis was found in small numbers. Night sweats were profuse; frequent chills occurred, followed by high fever. Emaciation was extreme.

The case was diagnosticated as quick consumption and a speedy dissolution was predicted. In this extremity serum therapy was suggested. The treatment was begun September 11, 1899. The initial dose was eight minims, given hypodermically. But slight reaction followed, and the dose was increased to fifteen minims. The first change noticeable was in the temperature, which began slowly to decline in about a week. The night sweats then became less profuse and the chills ceased. The cough and expectoration diminished, and in about ninety days the cough had practically ceased. The general condition improved, and menstruation returned, but was somewhat irregular. One hundred and four injections were made in all. Seven months had elapsed at the time of reporting since the beginning of the treatment. During the first four months, and long after the other symptoms had subsided, there was still slight temperature, 99° to 100.5° F. For the last three months, however, the temperature had been practically normal, until recently, when an acute attack of amygdalitis supervened. The patient has almost regained her usual weight. Inspection of chest showed slight depression in the left mammary and infraclavicular regions. Auscultation showed normal vesicular respiration over both lungs, except in the left mammary and infraclavicular regions. No râles, no cough, no night sweats; but patient was still weak and tired easily on exertion.

Of three other cases treated by serum injections, two were improved and one patient died. Only about thirty-five injections were made in each of these cases. The patient that died was in the third stage of phthisis, and had a large cavity in the left lung. The serum used was antiphthisic serum T. R. (Fisch).

The Care of the Teeth in the Syphilitic.—Dr. C. Travis Drennen (*Memphis Medical Monthly,* March) says that he makes it a practice, if the gums are in poor condition and the teeth and tongue unclean, to have the patient procure a rather heavy toothbrush and with it rub and scrub before and after each meal, not only the teeth and gums but likewise the tongue, until it also is clean. Following this, a saturated solution of boric acid may be used with excellent effect for an indefinite length of time. In fact, it is about the only preparation with which he is familiar that can be used without the production of deleterious results. No harm is done should the gums be soft and spongy, bleeding freely under such rough handling, for the parts will be relieved of their engorgement and pathogenic material washed away. Dr. Drennen has found nothing half so simple and effective for hardening the tissues as alcohol, and this he uses night and morning by rolling a piece of cotton on some suitable applicator and thoroughly applying it to the affected areas. Should the patient complain too much at this seeming hard treatment, cocaine may be applied for a few times and then the work can be accomplished with all ease. Nicotine is not only poisonous to the general constitution under such conditions, to various degrees in different individuals, but it is likewise a source of irritation to the mucous membrane of the mouth, whence it should be discontinued in all forms until the patient is considered cured.

Book Notices.

The Medical Diseases of Childhood. By NATHAN OPPENHEIM, M. D., A. B. (Harv.), Attending Physician to the Children's Department of Mount Sinai Hospital Dispensary. With One Hundred and One Original Illustrations in Half-tone and Nineteen Charts. New York and London: The Macmillan Company, 1900. Pp. xx–653. [Price, $5.]

IT can not be said that this book contains much if anything that is new, and as a compilation it has faults, but they seem to be due mainly to lack of care in the writing. It has its points of excellence, too, especially in the early chapters relating to the development of the child.

The Pathology and Surgical Treatment of Tumors. By N. SENN, M. D., Ph. D., LL. D., Professor of Surgery, Rush Medical College, Chicago, etc. Second Edition, revised. Illustrated by Four Hundred and Seventy-eight Engravings and Twelve Full-page Plates in Colors. Philadelphia: W. B. Saunders, 1900. Pp. 5 to 718. [Price, $5.]

THE short space of time that has elapsed since the issue of the first edition of this excellent work has admitted of but few changes or additions to the text. But little has been added to our knowledge of tumors. The greatest advances have been made in the nature of more radical operations for the cure of carcinoma, but little if any advance has been made in its ætiology or pathology. The parasitic origin of neoplasms still commands attention, but nothing of a positive nature has been added to its literature. Among the changes to be found from the former edition is a new section on the sarcomata of the decidua. It is to be noted also that a number of old illustrations have been eliminated, to be replaced by new and original ones.

Dr. Senn's work is so well known to the surgical world as hardly to require more than a mere notice of the advent of this the second edition.

The volume is divided into thirty chapters, with many illustrations scattered throughout the text wherever it has been necessary. The careful arrangement of the subjects in a systematic manner has rendered the work of great value as a book of reference.

Essentials of Diagnosis. Arranged in the form of Questions and Answers, prepared especially for Students of Medicine. By Solomon Solis-Cohen, M. D., Professor of Clinical Medicine and Therapeutics in the Philadelphia Polyclinic, etc., and Augustus A. Eshner, M. D., Professor of Clinical Medicine in the Philadelphia Polyclinic, etc. Illustrated. Second Edition, revised and enlarged. Philadelphia: W. B. Saunders, 1900. Pp. 5 to 417. [Price, $1.] [*Saunders's Question Compends, No. 17.*]

The second edition of this compend presents medical diagnosis brought down to the latest theories and notions. It differs from most books of this kind in being more than a mere compilation, as the most cursory reading of its articles must show. It is exceedingly complete, the chapters on the nervous system being especially admirable. The malarial diseases, too, are very fully treated of. The authors are to be credited with having produced a work on diagnosis which is suitable for the practitioner as well as for the student.

Das Weib in seiner geschlechtlichen Eigenart. Nach einem in Göttingen gehaltenen Vörtrage von Dr. Max Runge, Director der Universität-Frauenklinik zu Göttingen, etc. Vierte Auflage. Berlin: Julius Springer, 1900. Pp. 38.

In this little philosophical essay Professor Runge takes the position that the struggle for "emancipation" in which women are engaged to-day is contrary to their mental and physical equipment. He discusses the theme mainly from the physical standpoint, and shows that, in view of her physiological functions alone, woman can not successfully compete with man at all times. Woman's main duty in life is to act as mother and wife, and any ambitions which tend to divorce her from these natural functions are contrary to her natural endowments and her proper desires, and can not, therefore be permanent. He appeals to physicians to sustain women in the execution of their normal acts and to suppress the tendency to masculinity in them as a sign of perversion.

The Cell in Development and Inheritance. By Edmund B. Wilson, Ph. D., Professor of Zoology, Columbia University. Second Edition, revised and enlarged. New York: The Macmillan Company, 1900. Pp. xxi–483. [Price, $3.50.]

The second edition of Professor Wilson's book has been demanded not only, it seems, by the exhaustion of the first, but by the advances in cytology which have marked the past few years. This has been especially the case in plant cytology, to which the author devotes as much space as in his judgment is essential to the elucidation of the subject. Many new illustrations have been added to the text, which has been increased by fifty pages. The illustrations are the most beautiful and lucid which have appeared in any similar work.

The new text, while covering the latest theories in cell development and inheritance, throw no greater light upon these problems, "the problems of the cell," than did Professor Wilson's first edition. We are still in the dark as to how "the properties of the idioplasm" (the physical basis of inheritance) "involve the properties of the adult body." And the question of development has not advanced much further toward elucidation. The chromatin of the nucleus, the author regards still as of predominant influence in transmitting hereditary characteristics, and in this attitude he is supported by Oscar Hertwig, Kölliker, and Weissman.

The author shows in clear and forceful manner the relations of cell problems to those of evolution, and the necessity of a knowledge of the former for a complete understanding of the latter. Cytology, in its broad sense, should, too, possess vital interest to the physician of broad and liberal mind, for the signs of a return, at least of a vigorous rehabilitation, of the cellular causation of disease are not wanting. In the borderland of medical science the study of the cell is foremost in importance and interest. Nowhere can the student find a more entrancing and lucid compilation of cell theories and their bearing upon biological science than in Professor Wilson's book.

International Clinics. A Quarterly of Clinical Lectures and Especially Prepared Articles on Medicine, Neurology, Surgery, Therapeutics, Obstetrics, Pædiatrics, Pathology, Dermatology, Diseases of the Eye, Ear, Nose, and Throat, and Other Topics of Interest to Students and Practitioners. By Leading Members of the Medical Profession throughout the World. Edited by Henry W. Cattell, A. M., M. D., Director of the Ayer Clinical Laboratory of the Pennsylvania Hospital. With the Collaboration of John Ashhurst, Jr., M. D., LL. D., and Charles H. Reed, M. D., of Philadelphia, and James T. Whittaker, M. D., LL. D., of Cincinnati. With Regular Correspondents in Montreal, London, Paris, Lepsic, and Vienna. Volume I. Tenth Series, 1900. Philadelphia: J. B. Lippincott Company, 1900. Pp. viii–315.

The present volume of this well-known quarterly is more than usually interesting. There are interesting articles on conditions in the Philippine Islands and on typhoid fever at Chickamauga in 1898, by Dr. Vaughan. The departments of medicine, therapeutics, neurology, surgery, obstetrics, and gynæcology, pathology, and the eye and ear are represented by excellent contributions. The volume ends with a good review of the progress of medicine in the year 1899.

The recent death of two distinguished collaborators in the work, Dr. Whittaker and Dr. Ashhurst, lends a melancholy interest to the volume.

BOOKS, ETC., RECEIVED.

A Manual of Surgical Treatment. By W. Watson Cheyne, M. B., F. R .C. S., F. R. S., Professor of Surgery in King's College, London, etc.; and F. F. Burghard, M. D. and M. S. (Lond.), F. R. C. S., Teacher of Practical Surgery in King's College, London, etc. In Seven Volumes. Volume III. The Treatment of the Surgical Affections of the Bones. Amputation. Philadelphia and New York: Lea Brothers & Co., 1900. Pp. xvi–305.

Burdett's Hospitals and Charities, 1900. Being the Yearbook of Philanthropy and the Hospital Annual. By Sir Henry Burdett, K. C. B., etc. London: The Scientific Press (Limited). New York: Charles C. Scribner's Sons, 1900. Pp. 1051.

The Medical Directory of the City of New York. Published by the Medical Society of the County of New York. [Price, $1.50.]

Les Tubercules des pédoncules cérébraux. Par le Dr. Georges-Édouard Raviart, Ancien interne des hôpitaux de Lille, etc. Paris: Georges Carré et C. Naud, 1900. Pp. 7 to 119.

Traité de chirurgie clinique et opératoire. Publié sous la direction de MM. A. le Dentu, Professeur de clinique chirurgicale à la Faculté de médecine de Paris, et Pierre Delbet, Professeur agrégé à la Faculté de médecine de Paris. Tome neuvième. Vessie, urètre, prostate, pénis, enveloppes du testicule. Par MM. Félix Legueu, J. Albarran, Pierre Sebileau. Avec 245 figures intercalées dans le texte. Paris: J.-B. Baillière et fils, 1900. Pp. ix–1 to 955.

Die Kohlenoxyd-Vergiftung in ihrer klinischen, hygienischen und gerichtsärztlichen Bedeutung. Monographisch dargestellt. Von Dr. med. Willy Sachs, Mülhausen im Elsass. Mit einer Spectraltafel. Braunschweig: Friedrich Vieweg und Sohn, 1900. Pp. ix–1 to 236.

The Transactions of the Medical Society of the State of California. Thirtieth Annual Session, San Francisco, April, 1900. Volume XXX.

Fibres from the Lamina Cribrosa extending out from the Optic Disc over the Retina. By Frank C. Todd, M. D., of Minneapolis. [Reprinted from the *Ophthalmic Record.*]

Ninth Annual Report of the Ohio Hospital for Epileptics, at Gallipolis, Ohio, to the Governor of the State of Ohio. For the Fiscal Year 1899.

New Inventions, etc.

AN IMPROVED LID ELEVATOR AND IRRIGATOR.

By E. L. Oatman, M. D.,
BROOKLYN.

While treating a severe epidemic of purulent conjunctivitis in one of our larger asylums for children, I devised the hollow lid elevator and irrigator which I described some years later in the *Medical Record* for January 6, 1894. I recently saw a paper, read by Dr. J. A. Andrews before the New York Academy of Medicine in 1885, showing that he had previously applied the same principle to an eye speculum. The difficulty with these instruments is that, when they are introduced under the lid, the outlet is imbedded in the swollen conjunctiva. This prevents a free flow of the cleansing solution, and to this fault I attribute the fact that they are not more generally used in cases of purulent and diphtheritic conjunctivitis, in which the thorough and frequent removal of all infectious secretions is of more value than any other single measure of treatment with which I am acquainted.

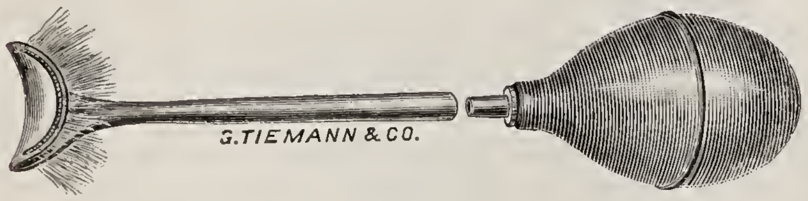

Fig. 1.

This objection I have endeavored to remove by placing a wire guard in front of the outlet, which, by holding the conjunctiva away, preserves a free space for the escape of fluid into the conjunctival *cul-de-sac* under a gentle pressure of the bulb.

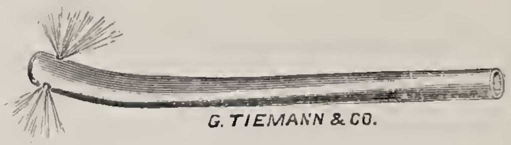

Fig. 2.

The smooth, round wire, advancing along the inflamed membrane during its introduction, is also less prone to produce an injury than would the two lips of my original instrument. I prefer to attach the bulb, filled with fluid, to the elevator after the inspection of the cornea is completed.*

For the purpose of simply removing secretions, or of cleansing the conjunctiva preparatory to an operation, a straight instrument, constructed on the same principle, is used.

Both instruments are correctly made by Messrs. George Tiemann & Co.

Miscellany.

An Adverse View of the Complication of the Medical Art with Missionary Enterprise.—The *Lancet* for June 30th makes the following trenchant comment in an editorial apropos of the Chinese situation. After naming the Hongkong and Tientsin schools, the only attempts in China at systematic teaching of modern medicine and surgery, which with some little ambulance work constitute all the medical training of the country save the barbarous mummeries, of which specimens are given, practised by the native physicians, the *Lancet* continues: "The medical missionaries from Great Britain and the United States of America have done a great deal of excellent hospital work in China; but it is perhaps unfortunate that the medical work has been accompanied in almost every instance by religious proselytizing. There seems little reason to doubt the fact that the progress of medicine and, what is still more important, the progress of general education and science and even of civilization, have been thwarted by the fact that the converts are in most instances tinged with conversion to a new religion. The young Chinese trained in medicine are almost all Christians, and the fact is deterrent to the advance of medical science among the Chinese. We believe that were science to be taught to the Chinese in a purely secular way Christianity might follow, but it seems impossible to civilize the Chinese by means of Christianity. The Japanese have become civilized irrespectively of Christianity. Encourage secular Western education, and especially medical science, in China, send Chinamen thus trained into every centre and town of China, and a leaven will be introduced and a diffusion of knowledge spread through the length and breadth of China which will in the near future bring many good things in its train—among others, we truly believe, a considerable conversion of Chinamen to Christianity."

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* If a bulb is used for irrigating, it must be disconnected as soon as emptied and not permitted to expand, thus drawing the conjunctiva into the opening of the elevator.

We believe the *Lancet's* principles to be sound, but it is a pity that they were not worked upon long ago. The present condition of things seem likely to defer indefinitely the possibility of their inauguration.

An Elizabethan Doctor.—Dr. Adam H. Wright (*Canadian Practitioner and Review,* July), in his presidential address to the Ontario Medical Association in June on The General Public and the Medical Profession, says that the following advertisement, taken from a newspaper of Shakespeare's time, will give us an idea of the position, social and otherwise, of a physician of that era:

"*Wanted.*

In a family who have had bad health, a sober, steady person in the capacity of doctor, surgeon, and man midwife. He must occasionally act as butler and dress hair and wigs. He will be required sometimes to read prayers and preach a sermon every Sunday. A good salary will be given."

No wonder that Shakespeare says, "Throw physic to the dogs. I'll none of it."

The Bushwick Central Hospital, Brooklyn.—Dr. H. W. Lincoln has been appointed gastrologist to the hospital.

The Alleged Hospital Scandals in South Africa.—We quote the following presentation of the case from the *Army and Navy Journal* for July 7th: "On June 20th the War Office cabled Lord Roberts that disquieting reports regarding the hospital service were accumulating, and asked him if anything could be done, and particularly whether more nurses were needed.

"On June 25th Lord Roberts replied, saying that he did not wish to shirk responsibility or to screen the shortcomings of the medical corps, and he suggested a committee of inquiry. He said there had been an abnormal number of sick at Bloemfontein, due to the exhausting nature of the march and the terribly unsanitary condition of the camp at Paardeberg, where the only water available for drinking flowed from the Boer camp higher up, where the river was crowded with decomposing animals and also with a considerable number of wounded after the fight of March 10th.

"To improvise accommodations at Bloemfontein for such a number, which had become two thousand before he left that city, was no easy task, said Lord Roberts. No tents were carried, and the public buildings had to be turned into hospitals. In three months there had been 6,369 admissions to the hospital of patients suffering from enteric fever, while the deaths numbered 1,370, about twenty-one per cent. Lord Roberts observed that he did not know whether this would be an abnormal rate in civil hospitals in peace times, but if the rate were abnormal it was due to the exhausted state of the men, and not to the neglect of the medical corps."

Chinese Impassiveness. — The *Indian Lancet* for June 1st says that so long as it could be believed that the "colored" races differ from the white in the composition of skin and blood, this power of recuperation, though extraordinary, was not unaccountable in a sense. It would be allied to those differences somehow. But at the present time we know that they do not exist. Even the famous *rete mucosum* can no longer be assigned as cause sufficient for a dark skin, since it proves that every human being has the same. And in any case it would not apply to the Chinese. They indeed make all the other easy explanations untenable. No race is so indifferent to pain, and none, surely, can be quicker in recovering from wounds. Among numberless examples we may cite one extracted by Mr. Arthur H. Smith from the hospital reports at Tientsin. A coolie lost his leg; a few weeks after his discharge he had another accident—smashed his hand and received "awful injuries" on head and body. His comrades thought the case hopeless, and threw him aside. For hours he lay in the blaze of sunshine. A good mandarin passing by requisitioned a cart and ordered some men to take him to the hospital. As soon as the mandarin was out of sight, they tossed him into a ditch. He crawled five hundred yards, to a shop by the wayside, and hid in a meal basket. There the shopkeeper found him presently and carried him to the hospital. He was an opium smoker confirmed; we are told, nevertheless, that "no bad symptoms" arose. All his wounds healed without a pause, and the poor fellow left, to seek such employment as was open to a coolie who has lost one hand and one leg, in four weeks after admittance. But Chinamen should not be healthy subjects according to the rules laid down by doctors, or, indeed, by common sense and experience in Europe. They are dirty in person and habits; the atmosphere they love is the foulest possible. If rich, they eat complicated messes, and if poor, any offal is devoured with joy. And a large proportion of them smoke opium. Perhaps our nerves check the healing process. We can not help thinking and fretting when hurt. A Chinaman has no imagination; he lies still of mind as of body, giving Nature every chance. In our own experience a coolie smashed a soda-water bottle, loaded a gun with the fragments, and discharged it into his breast, because the keeper of the opium shop refused him more credit. As he lay extended on a *chârpoy,* the doctor tapped with his knuckle all round the small black hole, watching for a start of agony as one of the bits of glass was touched. But there was no change in the yellow face, not a blink in the hard little eyes which stared at us unceasingly. At each rap the doctor asked whether it hurt; receiving no answer, he called the man's attention by a gentle pull at his queue, and repeated the question. "Yes, it hurts," the Chinaman replied at length, "I have a sore head." The pain caused by those tappings must have been horrible; of the pull at his hair he could only just be conscious. But if a Chinaman be capable of feeling sentiment, it is for his pigtail. The other twinges he regarded as a matter of course.

As an addendum to this, to show that, if newspaper reports are true, the Chinese do not have it all their own way, we may refer to a story published in the *New York Times* for July 13th in which it is stated that a boy, sixteen years old, walking along the Grand Central Railway track near One Hundred and Thirty-eighth Street, fell and had his left arm completely severed by a passing train. The boy picked up his severed arm and walked with it until he finally landed in Harlem Hospital. His only remark, according to the newspaper, when handled by the surgeon was, "Don't stick me with scissors."

How to Make a Good Mosquito Net.—Dr. R. W. Felkin (*Journal of Tropical Medicine,* May) quotes from his book *Uganda and the Egyptian Soudan,* vol. ii, p. 51, the description of a mosquito net made under the personal superintendence of Gordon Pasha and after his model:

"I may mention how our mosquito curtains were made. The top, seven feet by three, is calico, the sides are mosquito netting, and at the bottom another piece of calico, the same size as the top, is sewn, except for about three feet on one side, which is left open as an entrance. Along the netting at this aperture we sewed a border of broad tape, filled with No. 2 shot. This acts as a weight and, as one creeps in, it clings to the body and prevents the greatest plagues of Egypt accompanying us in too great numbers. When inside, a few mosquitoes are sure to be found, so that a boy holds a light at one corner of the curtain, toward which the mosquitoes fly and then are speedily dispatched. This plan is much better than having a light inside, for accidents frequently happen; and, even if they do not, the light burns away some small fibres from the net and makes plenty of room for other mosquitoes to enter. To do Djour Ghattas justice (this was the place I was writing at), there were very few mosquitoes there; but it is a good plan for travelers in Africa to sleep always within curtains, as I have found this to be a great protection from malaria. The curtains should not be too dense, on account of the heat, and also it is necessary to be able to see out of them distinctly."

Gordon, it appears, was a firm believer that mosquitoes were in some way connected with the transmission of malaria.

The Castor-oil Plant as a Preventive of Malaria.—Dr. R. W. Felkin (*Journal of Tropical Medicine*, May) states that Emin Pasha agreed in his belief that castor-oil plants about a house, and especially at the doors, are a great protection against mosquitoes.

The Endemic Centres of Plague.—Dr. Frank G. Clemhow (*Journal of Tropical Medicine*, May) thus sums up his conclusions in the third and concluding paper of an interesting series: The review of the endemic centres of plague, as known to exist between the years 1850 and 1894, when the present so-called pandemic of the disease began its course, is now complete. It will have been observed that these centres, while confined to Africa and Asia, and almost, but not quite, to the northern hemisphere, are nevertheless widely scattered. A mere enumeration of them is sufficient to demonstrate this: Mongolia, southern China, the Himalayas, Mesopotamia, Persia, Arabia, Central Africa, and possibly Siberia (Transbaikalia), Russian Central Asia, and Tripoli. The endemic nature of plague in Tibet is at present only a matter of conjecture.

A second important fact is that no connection has been definitely traced between any two of them, and no direct transmission of infection from one to the other has ever been proved, though it may have been surmised.

A third remarkable fact, or group of facts, is found in the variety of conditions met with in these different centres of plague. The disease has been no less truly endemic in Eastern Mongolia, where the winters are intensely severe, and the summers short and cold, than in the equatorial heats of Central Africa. It has prevailed at great heights in the Himalayas, and on the low-lying, alluvial plains of Mesopotamia; among races so diverse as the Chinese, Mongolians, Himalayan highlanders, Persians, Arabs, and full-blooded Central African negroes; and among the nomad tribes of Arabia and Tripoli as severely as among the settled population of some of the other places named. In short, there would seem to be no single characteristic or group of characteristics shared alike by all the places and peoples enumerated—unless it be that all are somewhat removed from the great routes of trade and travel, and that in all the sanitary conditions and surroundings are at almost the lowest possible level.

Attention has already been drawn to the fact that in a certain number of these centres the conditions have presented many points in common. It would be easy to dwell upon the marked resemblances between the plague centres in Mongolia, the Himalayas, Arabia, Persia, and perhaps Russian Central Asia—remote hill tracts, high above sea-level, inhabited by uneducated highland races, living in the midst of filth, poverty, overcrowding, and other insanitary conditions. But in view of the behavior of the disease elsewhere in the period under review and throughout historical times, it is obviously impossible to assert that these are the conditions necessary for the endemic prevalence of plague. In former years exactly the reverse view was held; low-lying, alluvial plains, and deltas at the mouths of rivers were regarded as the breeding places of plague. Each of these alternative views is too narrow. Increasing knowledge of what is occurring in remote parts of the world, and a wider survey of the disease, tend to show that plague can become truly endemic under almost every variety of condition and circumstance. There is, perhaps, one important exception to this statement. It has yet to be shown that plague can become endemic in a town or country where sanitation and public health administration have reached a high level of general excellence.

It is almost superfluous to point out, after what has just been stated, that the "endemic centres of plague" are frequently changing. Were any other half century taken than that now under review, other centres than those here described would have to be dealt with. Even the oldest of the centres mentioned in these papers dates back for no more than, perhaps, one or two centuries, and most of them are of much more recent date. Plague was for centuries truly endemic in Europe, yet it disappeared from it without apparent cause. Egypt was for long regarded as the home of plague, yet the disease completely left the country in an equally inexplicable manner. In a word, it would seem that there is no truly permanent home or breeding ground of plague, such as there would appear to be in the case of cholera.

Is it not possible that this difference in the behavior of the two diseases is due to a difference in the life history of the micro-organisms associated with them? That of cholera can, it is known, exist for long periods outside the human body, and it appears to find in many parts of India and the far East conditions favorable to its permanent existence as a saprophytic organism. That of plague, on the other hand, can, perhaps, only exist for very brief periods outside the bodies of human beings or the lower animals; and, as the conditions for the survival of an organism in the bodies of living creatures must be much less constant than those for the survival of an organism in a saprophytic state, so the organism of plague finds in no part of the earth's surface conditions for its permanent prevalence as an endemic disease.

Finally, I would repeat that a study of the recent history of plague shows conclusively that its wide epidemic spread since 1894 has not been the result of any universal or earth change affecting simultaneously all those places where plague was endemic before that year; but that it is in all probability to be traced to a diffusion of infection from one centre or group of centres only—those in southern China.

Original Communications.

THE PITUITARY GLAND AS A FACTOR IN ACROMEGALY AND GIANTISM.

By WOODS HUTCHINSON, A. M., M. D.,
PROFESSOR OF COMPARATIVE PATHOLOGY, UNIVERSITY OF BUFFALO.

(*Concluded from page 100.*)

Now let us examine in detail the cases of unquestioned acromegaly in which a microscopic examination has been made of the pituitary. But perhaps a few words as to the normal structure of this interesting body would first be in order, inasmuch as descriptions of it are of the briefest and most unsatisfactory character in most of our standard text-books. The "gland" consists of a large anterior or glandular portion proper, and a small posterior or primarily nervous portion. The former of these is derived from the buccal epithelium *via* the pharyngeal bursa, while the latter is derived from the floor of the third ventricle, with which it is still connected by the infundibulum. The anterior portion is much the larger of the two, and embraces, in crescent fashion, the posterior division, and consists in a normal body of an irregular mass of epithelial clumps, ranging all the way from solid groups of cells up to distinct rounded acini with an epithelial lining, often containing a colloid material similar to that found in the thyreoid. Inasmuch as good drawings of the normal gland are rare, I have ventured to insert two of a typical specimen in my possession selected from a number of sections made from six different human pituitary bodies, as giving a fair representative picture. The posterior part of the gland, although (as will be shown later in the consideration of its ancestry) originally nervous in its origin and structure, has for the most part, as Berkeley shows, been transformed into a mass of connective tissue inclosing a few scattered nerve cells and vessels, and occasionally the remains of a cavity connecting with that of the third ventricle can be detected. The proportion between these two parts of the gland appears to vary considerably in health, but is chiefly due to the changes in size of the posterior lobe, the anterior or buccal lobe remaining tolerably constant. The proportion between them may range all the way from one to twelve to one to five. The proportion shown in the inclosed sketch would represent a fair average, although in other specimens in my possession, in which the total body mass is but very slightly in excess of this same section, the posterior portion is nearly three times the size here shown. This variation alone would strongly suggest, what I think will further be shown in a study of the gland in disease, that whatever function may be exercised by the structure is carried out by means of the anterior lobe; and, indeed, the posterior lobe evidently consists of simply a larger or smaller mass of connective tissue, a mere remnant of its former structure. The structure of the anterior lobe very closely resembles that of the thyreoid body, only the acini are smaller, more scattered, and much less regular in their formation. There is a singular mixture of epithelial elements, showing a rather feeble tendency to the formation of acini, which when formed become filled with colloid material, with and among a curious embryonic-looking mesh of more or less immature vascular tissue with wide capillary spaces filled with red blood-plastids, some of which are irregular in outline. In fact, in many parts of the field one is struck by the marked resemblance of the tissue to the "vascular area" of the embryo during the process of vessel- and blood-formation. Another singular tendency of the normal pituitary body which was first recorded by Berkley in his splendid monograph upon the Nerve Cells of the Pituitary Body, in the *Johns Hopkins Hospital Reports*, is that of the

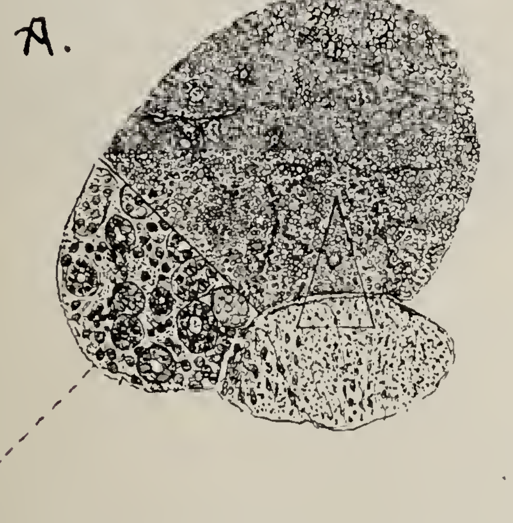

Fig. 15.—Pituitary of infant at birth. × 10. Anterior lobe above, small posterior lobe below. 3, Portion to left of line × 100.

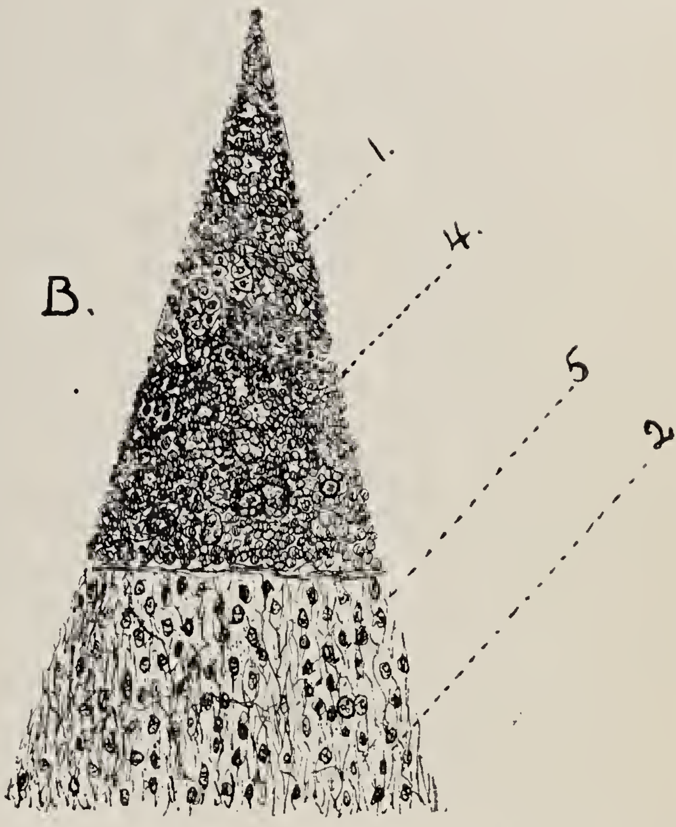

Fig. 16.—Triangular area in Fig. 15. × 200. 1, Anterior (glandular) lobe; 2, posterior (nervous) lobe; 4, imperfect acinus; 5, ganglion cell.

glandular structure to apparently invade the tissue of the posterior lobe. We not infrequently find in this originally nervous body not merely clumps of epithelial cells, but distinct acini of glandular appearance, which Berkley regards as produced by the transformation of immature nerve epithelium into, so to speak, alimentary forms, a change of great significance when we remember that this was unquestionably at one time a point of communication between the neural and the alimentary canals and epithelium. Most authorities describe the anterior lobe as containing a more or less distinct cavity, which is at times lined with epithelium, but I must confess that in the specimens which I have had the opportunity of studying this cavity appears but little more than a tendency to the formation of a cleft of the tissue in this situation, which cleft, as we shall see, becomes exaggerated in a singular manner in the hypertrophied specimen which I have to report. I have been able to collect nineteen cases of acromegaly, including Dr. Dana's and my own, in which a microscopic study was made of the enlarged pituitary body, which may be listed as follows in the order of the years in which they were reported:

1. Bury, 1890: "Glioma, containing cysts."
2. Holsti, 1890: "Pulpy mass of embryonic tissue."
3. Tamburini, 1892: "Hypertrophy (adenoma) of entire gland."
4. Cepeda, 1893: "Pure hypertrophy."
5. Claus and Stricht, 1893: Gland in process of necrosis; remains "consist of lymphoid tissue."
6. Boltz, 1893: A cherry-sized tumor of very soft consistence; "adenoma."
7. Caton and Paul, 1894: "Sarcoma with embryonic cells."
8. Dallemagne, 1895: "Transformed into a sarcomatous mass, consisting mainly of capillaries surrounding masses of cellules of but little protoplasm, but with nuclei greedily taking staining reagents."
9. Dallemagne, 1895: "Hypertrophy of the nervous (?) portion," with "frequent areas of colloid degeneration."
10. Dallemagne, 1895: "Nervous portion has undergone cystic degeneration" (very small cysts); "the buccal has its acini more developed than normal."
11. Roxburgh and Collins, 1896: Mass very soft and friable; "apparent hypertrophy of normal *posterior* (?) lobe," glandular in character.
12. Dana and Brooks, 1897: A mass of embryonic tissue of somewhat doubtful character, but apparently adenomatous.
13. Hausemann, 1897: "Oval-celled sarcoma."
14. Uhlhoff, 1897: "Sarcomatous tumor."
15. Dalton, 1897: "Hypertrophy or sarcoma."
16. Rolleston, 1897: "Round-celled sarcoma."
17. Godlee - Lawrence, 1897: "Enlargement of normal cells."
18. Osborne, 1897: Pulpy mass containing cyst. Mass of primitive cells. Probably sarcomatous.
19. Last of all is the case in which through the great kindness of Dr. C. L. Dana I have been given the opportunity of making sections and a microscopic study. The gland is that taken from the skull of the "Peruvian giant" reported by Dr. Dana in his most interesting and suggestive paper of November, 1893, a *résumé* of which has already been given. The gland measured, when fresh, thirty millimetres from before backward and thirty-one millimetres from side to side. Its weight was four grammes and a half. It was attached to a pedicle that was fifteen millimetres long, was of rather soft consistence, and apparently somewhat cystic. A tear in its anterior portion had reduced its bulk by the loss of hæmorrhagic contents. The gland was preserved in alcohol, and some months ago most generously turned over to me by Dr. Dana for the purpose of microscopic study. A cut of the base of the brain from Dr. Dana's paper, showing the gland in position, is inclosed, and also a tracing of the gland itself, from the original photograph of the brain, which was made as nearly normal size as possible. The growth was only slightly oval in form, and, as will be seen in the section, was found to consist of a huge anterior lobe of a somewhat beanlike shape, in the notch of which fitted the much smaller posterior lobe. At the lower part of the growth it was distinctly lobulated, so that sections, which were made at a number of levels, showed a triple outline in the lowest part, and it was not until a point

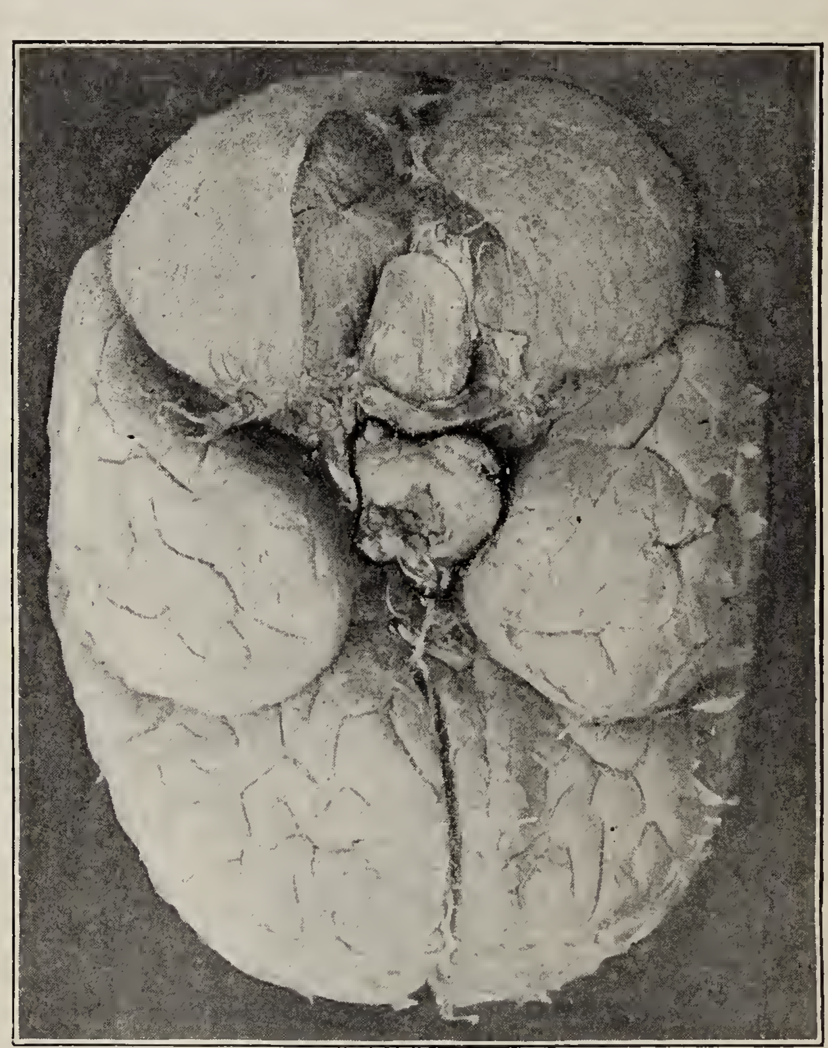

Fig. 17.—Photograph of base of brain of Dr. Dana's Peruvian giant, showing enlarged pituitary *in situ*.

Fig. 18.–Tracing of outline of enlarged pituitary from photograph just after death. Posterior border to the right; curved line shows tear in anterior portion.

slightly above the vertical centre of the gland was reached that the posterior lobe became included in the sections, the anterior portion projecting not only far in front of but decidedly below the latter. The section which is given is chosen as a typical one, and was made slightly above the middle of the mass. The direction of the section, of course, is horizontal, and the longer diameter is the transverse one. The gland in hardening, and on account of the loss of the central part by rupture, has assumed a much more oval shape than that which it presented in the recent condition. As will be seen by comparison with the sketch of the normal pituitary, the proportion between the anterior and posterior lobes to the naked eye appears but little altered; but when we come to study the minute structure we shall see the reason for this curious apparent maintenance of proportion. Even to the naked eye the sections of this body show obvious breaking down of structure from the comparatively firm cortical portion toward a large gap which exists in the centre, which was caused, as Dr. Dana explains, by the bursting of the gland and the escape of a large mass of its hæmorrhagic contents. This impression is confirmed by microscopic examination. The extreme periphery of the gland lying next to the firm fibrous capsule is found to consist of a belt of somewhat irregularly arranged masses and columns of epithelial cells, which at many points show a distinct tendency to form clumps, with a gap in the centre, and at several regions develop into typical acini. This belt is succeeded (traveling toward the centre) by a somewhat wider zone in which the epithelial masses and clumps are more irregular and separated by wide vascular spaces filled with red blood cells, which are also diffused all through the tissue; and, finally, around the central cavity there is a literal "ragged edge" of a tumultuous mass of cells with abundant nuclei, and showing little or no trace of organization, or indeed any distinct features by which we could even decide whether they were epithelial or mesoblastic in their origin. There are a great number of blood-vessels scattered all through the mass, toward the periphery with fairly well-formed walls, but toward the centre becoming mere gaps in the embryonic-looking tissue. The more I have studied the various sections of this specimen, and the more carefully I have compared it with the specimens of normal pituitary in my possession and the drawings of Piersoll, Berkley, and others, the more forcibly I become impressed with the fact that we have to do here with what might be described as a desperate effort at excessive glandular hypertrophy, comparatively successful in the cortical portion of the gland, less so in the intermediate zone, and breaking down in a wild tumult of new cell-formation, ending in an almost simple exudate or hæmorrhagic condition in the centre of the gland, where there appears to be a lower grade of formation in the normal pituitary.

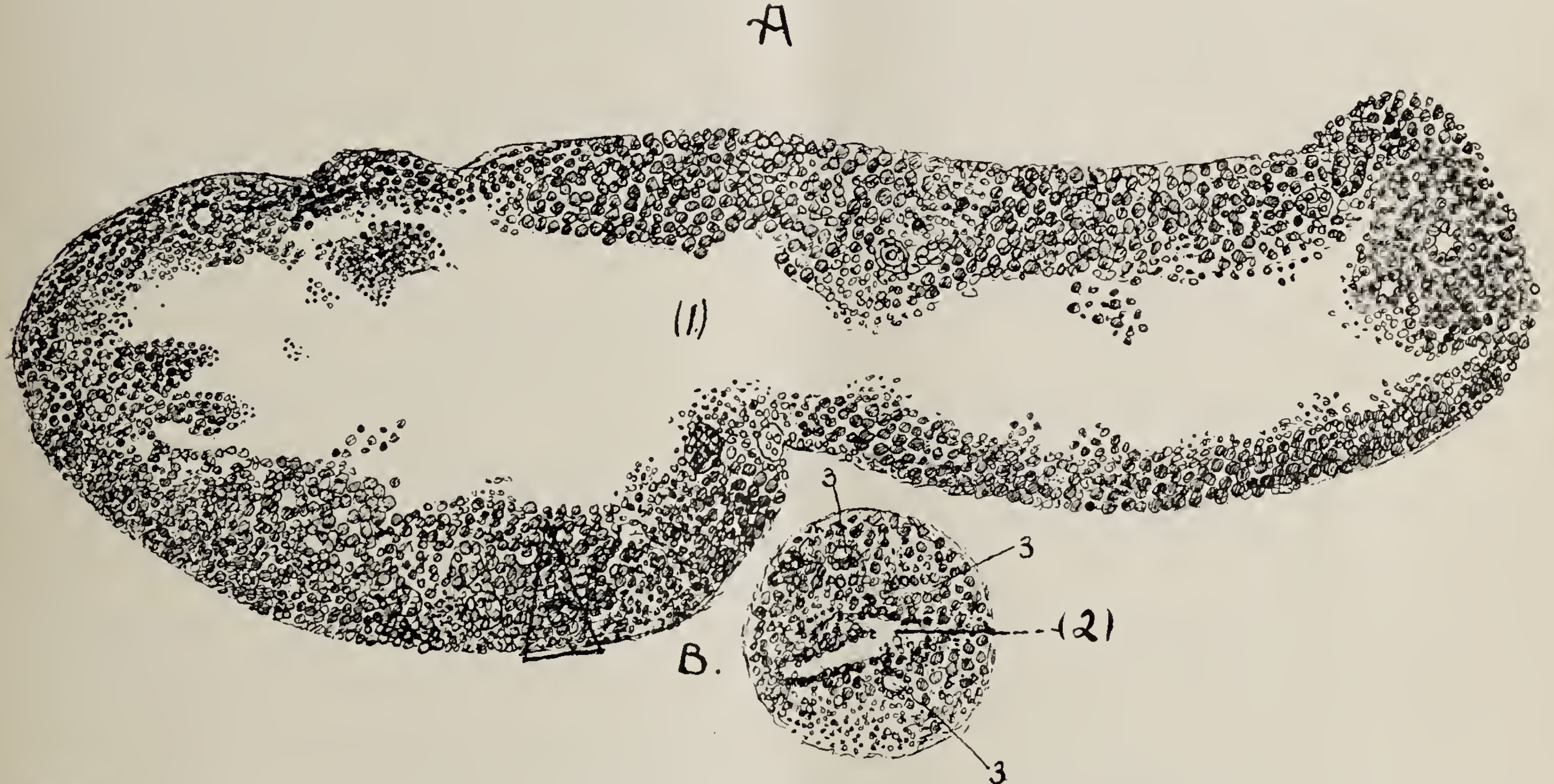

Fig. 19.—Abnormal pituitary from Dr. Dana's case, × 6. Details × 100. (1) Central cavity; A, anterior (glandular) lobe; B, posterior (nervous) lobe; (2) central canal from cavity of infundibulum; 3, glandular acini in posterior lobe.

When we turn to the posterior lobe of the body a most singular condition confronts us. Instead of a mass of somewhat spongy connective and vascular tissue with a few ganglion cells scattered through it, we find a compact and comparatively orderly mass of closely packed rounded clumps of epithelial cells, interspersed with quite a fair proportion of apparently normal acini. In fact, as will be seen by comparison of the plates, there is quite a decided resemblance to the tissue of the normal anterior lobe. If it were not for the fact that successive sections show that this stage of affairs continues right up into the infundibular stalk of the body, where there are still distinct traces of the central canal of this region, we should almost be inclined to suspect that we had here stumbled upon a normal pituitary body, and that the hypertrophy was an adenosarcoma. However, the recollection of Berkley's discovery will give us a clew here to the situation, and that is, that the gland-forming process which not infrequently occurs in the normal posterior lobe has, as it were, caught the infection of the general hypertrophy and progressed in the posterior lobe to this extraordinary degree. I have also shown these specimens to Dr. Brooks, who informs me that the condition which they present is almost identical with that in his own and Dr. Dana's case already referred to.

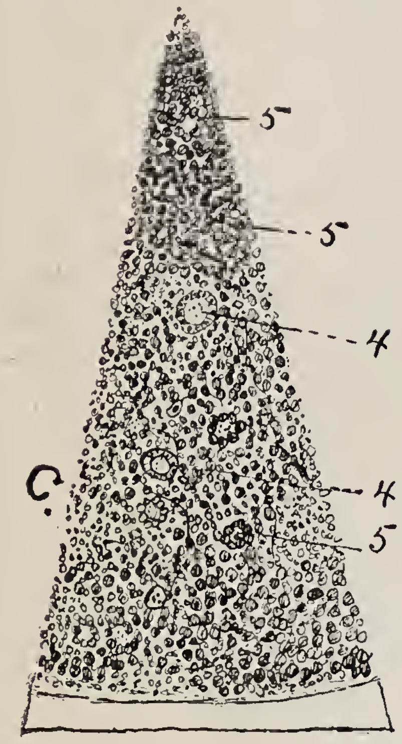

Fig. 20.—Triangular area of Fig. 19. × 209. 4, Perfect acini; 5, imperfect acini.

We are now prepared to analyze the findings in these nineteen cases. The first division which presents itself is that eleven out of the nineteen are described as either pure hypertrophy, glandular in their character, or adenomatous, and when we come to look at the other five in the light of the condition present in both the cases of Dana and Brooks and Dana and myself, we shall, I think, be justified in including many of these in the category of immature gland tissue. There are two singular contradictions in the list of the hypertrophies, one that of Dallemagne, in which statement is made that there was hypertrophy of the *nervous* portion with frequent areas of the *colloid degeneration*—a condition which could not have occurred except in the event of a large amount of the glandular invasion of this portion of the lobe, already spoken of, and it strongly raises the suggestion that he had mistaken the relative position of the two lobes. The other exception is that of Roxburgh and Collins's case, in which the self-contradictory statement is made that there was apparent hypertrophy of the normal posterior lobe, which was *glandular* in its character, which, again, can only be explained by the extension of the glandular process to this region. In the third case of Dallemagne we also find clear evidence of this same formation in the nervous portion, which, as he says, has undergone "cystic degeneration, with small cysts."

To sum up, out of the thirteen microscopic examinations eight are unquestioned glandular hypertrophies of adenomatous character, while four out of the remaining five describe a mixed type of tissue, which we think will be found to conform very closely to the condition in the middle and inner zones of the Brooks-and-Dana case and of the case here reported. This corresponds quite closely with the findings of Tamburini, who, in a recent paper, already referred to, has tabulated eight cases of acromegaly in which microscopic examinations were made, with the conclusion that "adenoma and its congeners are most common."

We think, therefore, that we would be justified in claiming that the twin diseases, acromegaly and giantism, are the result of a normal or glandular hypertrophy of the entire pituitary body, beginning in and chiefly affecting the anterior lobe, but even extending to and affecting the posterior or nervous lobe.

Perhaps one word should be said in this connection in regard to the theories which have been advanced giving the thyreoid gland an important part to play in the causation of this disease. This theory, however, has been practically dismissed by all who have investigated the subject, for the reason that the changes in the thyreoid are extremely uncertain and differ widely in nature, the general statement being that the thyreoid appears to be affected in something like fifty per cent. of all cases. A study of twenty-three cases in which the condition of this gland was carefully investigated shows that it was normal in eleven, atrophied in seven, and enlarged in five; and when we remember the well-known fact that we have now upon record hundreds of cases in which all sorts of disturbances of size and function of the thyreoid body are present, without the production of a single acromegalic symptom, I think that we must admit that the changes in this body are not to be compared in probable causal importance with those in the pituitary body. In fact, the changes which are reported as occurring appear to be chiefly due to the undoubted sympathy which exists between these two extremely similar glands, and which I think we are again entitled to consider as "glands" in the fullest sense of the term, in the light of their origin and function. By experiment upon animals it has been shown that the pituitary body distinctly enlarges after removal of the thyreoid; and we should therefore not be in any way surprised to find that a disturbance of the pituitary body might be accompanied by possibly compensatory changes on the part of its sister gland.

As to the theory of Klebs and Erb that the persistence of the thymus plays an important part in this disease, it need only be said that this theory has fallen into discredit from nearly similar reasons—namely, that in many cases of acromegaly there are no traces, either during life or after death, of the persistence of the thymus; and also, on the other hand, we have many cases on record in which this gland persisted without the production of a single acromegalic symptom. It is, however, only fair to say that Tamburini has recently collected a series of eleven autopsies in which careful search was made for this body, with its discovery in no less than eight, and we are perfectly willing to admit that there is probably some degree of sympathy between both these fœtal pouches from the archenteron.

This theory of causation is, of course, by no means new, as it was suggested in the first Marie-Souza-Leite essay and has been commented upon more or less favorably by the majority of writers upon the subject since.

As to the history of the suggestion of the connection between acromegaly and giantism, perhaps a word might be said. The first intimation of such a connection was given in the monograph of Cunningham in 1891, although the connection had already been alluded to in Virchow's paper in 1889, only for the purpose, however, of denying any such connection. Cunningham also quotes certain conclusions pointing in this direction from Langer's paper of the preceding year, though the only conclusive statement which he permits himself to make upon the subject is that the facts as he has collected them " point to some kind of connection between acromegaly and general giant growth." Next, in 1892, came the papers of Taruffi and Tamburini, in which this connection is explicitly stated. Early in 1893 Dr. Dana and myself, by a curious coincidence, each prepared a report of a case of a combination of these diseases to be read before the same medical body—namely, the Pan-American Medical Congress. Neither of us knew anything of the other's case until our preliminary abstracts were published, and I believe that neither of us, at least I can certainly say so for myself, had ever heard of any connection between these two conditions until it was most forcibly and obviously suggested by the cases which came under our hands, and in both our papers, which are published in the *Transactions* of the Congress, the suggestion is made that acromegaly and giantism may probably be different forms of the same dystrophy. The first formal statement that giantism is acromegaly beginning in early life appears to have been made by Tamburini in 1894. This was followed early in 1895 by a similar statement by Brissaud and Meige in their celebrated case, already quoted, although Massolongo, in a most pompous pronunciamento, announces in the same year, with a great flourish of trumpets, that he had enunciated the same theory in a clinical lecture in the spring of 1892, and pats himself on the back in a most delighted fashion for making such a wonderful discovery that has since been confirmed by such distinguished authorities. The connection, however, between the two would appear to have been suggested by simple force of circumstances to some three or four observers in different parts of the world, for the most part independently of each other.

As to the statement that in the pituitary body we appear to have a sort of growth-regulating centre for the entire body, the disturbance of which in early life will produce the phenomena of giantism, and in later life those of acromegaly, and the pointing out of the regional relation of the overgrowths, I would venture to claim the priority, inasmuch as the earliest statement or suggestion of this fact in the term " hyperfunction of the hypophysis " was that of Tamburini in the spring of 1895, while, as will be seen by the inclosed report of my own case, I had made both these statements in the paper published (in abstract) in the *Transactions of the Pan-American Medical Congress* and accepted by the *American Journal of the Medical Sciences* in January, 1894, but which for some reason best known to the editor was not published until August, 1895. In fact, so far as I am aware, the latter suggestion as to the embryonic relations of the growth has been nowhere mentioned but in this paper.

A glance at the origin and ancestry of this most singularly compound body, the *hypophysis cerebri*, will, I think, be both suggestive and partially explanatory of the extraordinary rôle which it appears to play in disease; and I regret that the length to which this essay has stretched itself will prevent more than a comparatively brief *résumé* of its history. It is admitted by all morphologists to be the crowning puzzle of the entire vertebrate anatomy, and innumerable theories have been suggested to explain its relations and even existence, for until recently no extra-uterine function was even suspected in it. The facts of its development, which are universally accepted, are these: That it is the product of two pouches—the one (which forms the anterior lobe) either from the extreme anterior end of the archenteron (primitive alimentary canal) to form the stomodæum; the other (which forms the posterior lobe) of a similar pouch from the floor of the posterior part of the first cerebral vesicle—and it was long suspected, from the fact of both these structures being hollow in the embryo, that originally their canals communicated and that we had here the connection between the neural and enteric canals, the so-called " neurenteric passage." The origin and developmental relations of these two distinct parts, which by their fusion form this body, are perfectly obvious even in the adult mammal. But the question of the connection of their tubes, although strongly urged by Owen, Dohrn, Beard, and others, was chiefly a matter of hypothesis until the publication in January, 1894 (*British Medical Journal*), of the extremely able and interesting researches of Lloyd-Andriezen. These researches had been conducted upon the larvæ of ascidians and lampreys, and upon amphioxus, in which he found that the site of the present pituitary body was occupied by an open canal extending from the pharynx into the central canal of the nervous system. This canal was lined by ciliated epithelium and extended throughout the length of the central canal of the nervous system, opening at the posterior neuropore. By the action of the ciliæ, a rapid current of water was driven through the canal from the oral cavity, and evidently supplied the respiratory demands of the nervous tissues. The pituitary body he found to consist of two thickenings of the walls of this tube, the larger one anterior and obviously glandular, and, in his opinion, probably adding some secretion to the water which was necessary for the maintenance of nutrition of the nerve tissues. The posterior, smaller, was distinctly ganglionic, and appeared to be developed for the purpose of "supervising" the quality of the fluid which passed through the channel behind which it lay and of regulating its admission to the canal of the central nervous system. From these two interesting masses are developed the anterior or glandular and posterior or nervous lobe of the adult mammalian pituitary body. And while the posterior lobe has naturally lost its usefulness on account of the closure of the tube whose orifices it supervised, and has accordingly undergone a more or less complete fibrous degeneration, the anterior lobe has retained almost its primitive proportions and structure, and is, in his opinion, from these facts alone still functional and capable of secreting an enzyme which will exert a marked influence over the nutrition of the nervous tissues. So convinced was he of its probable importance in the adult organism, on account of the extraordinary character of its persistence after the closure of the tube which originally called it into being, that he even ventured to predict what would be the symptoms which would result from its removal or destruction in mammals, intending at some future date to make corroborative experiments. Curiously enough, at the time at which he wrote, and without any knowledge of his work, Vassalle and Sacchi were actually conducting a series of such experiments, which they reported to the congress at Rome that summer (1894). The experiments were carried out upon dogs, and the pituitary excised or destroyed *in situ* by the injection of chromic acid and other caustics. In their entirety they furnish a most striking confirmation of Andriezen's brilliant predictions. The results which he predicted were, first, depression and apathy; second, muscular weakness; third, the loss of fine coordination and balancing; fourth, the development of twitchings and irregular contractions of the muscles; fifth, a want of sufficient heat production and subnormal temperature; sixth, a wasting of the body tissues; seventh, a probable compensatory polypnœa or attacks of dyspnœa; and eighth, a rapid progress toward death. The results recorded by the experimenters were, so far as they went, almost in exact accord with these predictions, consisting of a fall of temperature to subnormal, listlessness and progressive depression of the animal, twitchings and tremors of the muscles, with later development of cramps and spasms and attacks of respiratory spasms, and, finally, death. Still more interesting corroboration is afforded by the report of a case of psammoma of the pituitary body by Walter Woollcombe in the *British Medical Journal*, June, 1894. The patient was a girl of eleven years, and the disease ran its course in about four months' time. The coincidence of symptoms is so striking that it may all be summed up in Woollcombe's statement that "all of the eight symptoms, except the fourth and seventh, were not only present, but very marked, and it is quite possible that attacks of dyspnœa may have occurred without my knowledge, as my opportunities for seeing the patient were not frequent enough for very close observation." In connection with the respiratory symptoms we would further state that Andriezen is inclined to regard the action of this enzyme as largely affecting the respiratory nutrition of the nerve centres; hence the confidence with which he prophesied attacks of dyspnœa, which were so strikingly confirmed in Vassalle's experiments.

In this connection we can not help regarding it as, to say the least, an interesting coincidence that the only other disease in which in any way parallel enlargement of the hands and feet occurs, and which is in any danger of being mistaken for acromegaly, is the so-called "*ostéoarthropathie pneumique*" of Marie, in which the unquestioned causation lies in the disturbance of the respiratory functions. In a private letter recently received Dr. Andriezen informs the writer that he has been using pituitary extracts in tablet form in the treatment in some twelve or thirteen cases of simple melancholia and acute primary dementia, of which no less than nine have been markedly improved by its use. But even this extremely interesting and valuable contribution of Andriezen's does not entirely clear up the mystery of this extraordinary connection between the enteric and neural canals. Theories of its origin have varied in the widest manner up to the remarkable surmise of Gaskell that the neural canal is the primitive alimentary tract of the crustacea and the ventricles of the brain the remains of their head-stomach—in the defense of which he even succeeds in discovering traces of a liver in the brain mass. The interesting suggestion of Beard, partially adopted by Sutton, that the neural canal is a disused loop of intestine, is hardly sufficiently supported, and in my inexpert opinion the theory which best harmonizes the facts connected with this remarkable structure is the old and until comparatively recently discredited theory of Owen, which regarded this neurenteric canal as the remains of the primitive gullet of the ancestor of the vertebrates, which originally passed *via* the cavity of the third ventricle and the hollow stalk of the pineal body to the primitive mouth in the region of the vertex. That this is the original position of the pineal-pituitary tract is, of course, acknowledged by all, and the upper part of it is found to form what is believed to be an impaired median eye in *Hatteria* (*Sphenodon*) and certain extinct lizards, and its existence is more than suspected in certain early types of extinct birds. The relation and formation of these parts in the embryo, especially in the invertebrate embryo, is, to say the least of it, suggestive. We have the neural canal ending in a blind pouch anteriorly, and directly below it the enteric canal ending in a similar *cul-de-sac;* a pouch from each connecting them by way of the hypophysis, and almost directly above this a similar pouch from the roof of the neural tube reaching up to the roof of the skull, afterward getting pushed back from this position by the tremendous overgrowth of the cerebral hemispheres. If we may be permitted the expression, there is absolutely, literally, "no way out" from either of these blind pouches, except by the route thus suggested. As to the fact that the upper part of this tract appears to form an eye in certain lizards, this is no necessary proof of its primary nature, as this may have been merely a secondary development, besides which morphologists generally are still somewhat in doubt as to the genuine eye-nature of this singular growth. And from a careful examination of all the plates of this interesting structure available, and from a study of a number of sections of embryo lizards, I must confess personally that its structure appears too vague to really adequately support the conclusions which have been based upon it. Whatever view we may take of the position of the primitive mouth (archeostoma), it is confessed by all embryologists that the present mouth of the vertebrates is an obviously secondary development, and is, of course, formed by a pouching-in of the buccal ectoderm. From the fact that this pouch is originally double, it has been suggested by Beard that it is formed by the confluence of a pair of gill slits, and this is the theory of its origin which appears most probable to me, as will be seen by its adoption in my preliminary explanation of the method of development of the facial arches.

To sum up, I believe that the facts of morphology, embryology, and pathology justify us in regarding the pituitary, third ventricle, and pineal tracts as the remains of the primitive mouth and gullet, around which will be found to range themselves, as round an axis, not merely the series of dorsal and ventral arches of which, in our opinion, the entire head is composed, but also the entire mass of the cerebral nervous system, and this fits in very closely with the first appearance of the cerebral tissue in invertebrates. The earliest "brain" which we have on record is that composed of two ganglia above (dorsad) the œsophagus, the so-called "supraœsophageal" ganglia, and two below (ventrad), united by lateral strands of nerve tissue, the whole forming the so-called "œsophageal nerve collar." A glance at the developing cerebral vesicles in even the human embryo will, we think, show at once that not only the great basal ganglia, but the great vascular trunks, arrange themselves around the pituitary body, infundibulum, and third ventricle in almost precisely the same manner as the nerve collar of crustaceans arranges itself around the gullet, and that the fixed centre from which the whole development of the brain can best be studied, and around which it rotates, as it were, upon an axis, will be found to be an almost vertical line drawn from the bottom of the sella turcica to the roof of the skull arch. I think that these developmental facts, and the theory which has been drawn from them, throw a most valuable explanatory light upon the fact of this singularly central and primitive body being the presiding centre over the growth of the segment arches of which the body is composed; and if I were to be asked to locate a "growth centre" for the entire body upon embryonic and morphological grounds, I should unhesitatingly select the region of the pituitary body as the site of such a centre. And this relation I believe to be more than justified by the vast preponderance of all the facts which pathology has added to our knowledge of this structure. Not only is this the case in acromegaly, but (as I believe was originally suggested by the writer in the article already referred to and quoted by Osler in his last edition) some reflex influence upon the "growth-centre" functions of the pituitary body is the only even approximately adequate explanation yet brought forward for those extraordinary disturbances of bodily growth and mental development which are so frequently associated with adenoid growths in the vault of the pharynx. A similar suggestion was made by no less an anatomical authority than Harrison Allen, and the theory has been almost unanimously indorsed by such laryngologists as have commented upon it. As need perhaps hardly be stated, the two bodies, the anterior lobe of the pituitary and the so-called pharyngeal tonsil, were simply the upper and lower regions respectively of the original buccal pouch, and even in adult life a fibrous cord passing through the body of the sphenoid has been found to persist between them.

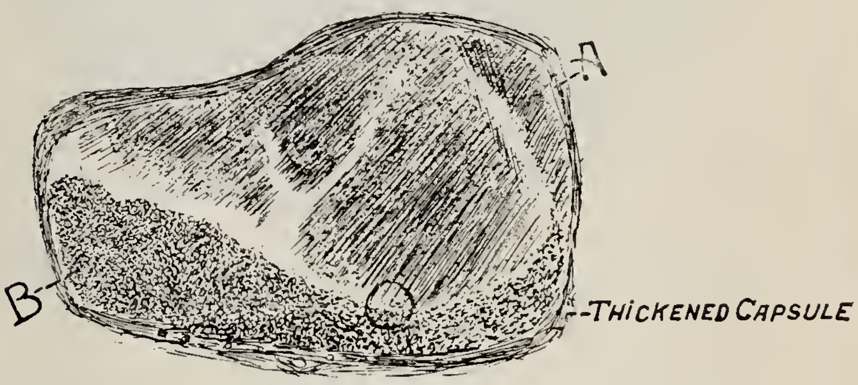

FIG. 21.—Section of pituitary of dwarf. × 10. A, glandular (anterior) portion; B, fibroid (posterior) portion.

In conclusion, I wish to add another isolated "straw," which, however, "points" in a most interesting manner, in the shape of a drawing and photograph of sections of the pituitary body of a dwarf—the first specimen of this kind which has ever been studied microscopically, I believe.

The gland was most kindly secured and sent to me by Dr. Henry Hun, of Albany, with a history of the case, which is briefly as follows:

The patient was a healthy dwarf, five feet one inch in height, and died of hæmorrhage into the optic thalamus at the age of about forty years. His father was about five feet five inches, and a paternal uncle about five feet four inches; his mother, a large woman. Two sisters and two brothers were of medium height. He married a woman of almost exactly his own height, and had two sons, one of whom was killed and the other "is a mite, now ten years old, but looks about five."

"Patient was well formed, except as regards height, and there was present neither rickets nor syphilis."

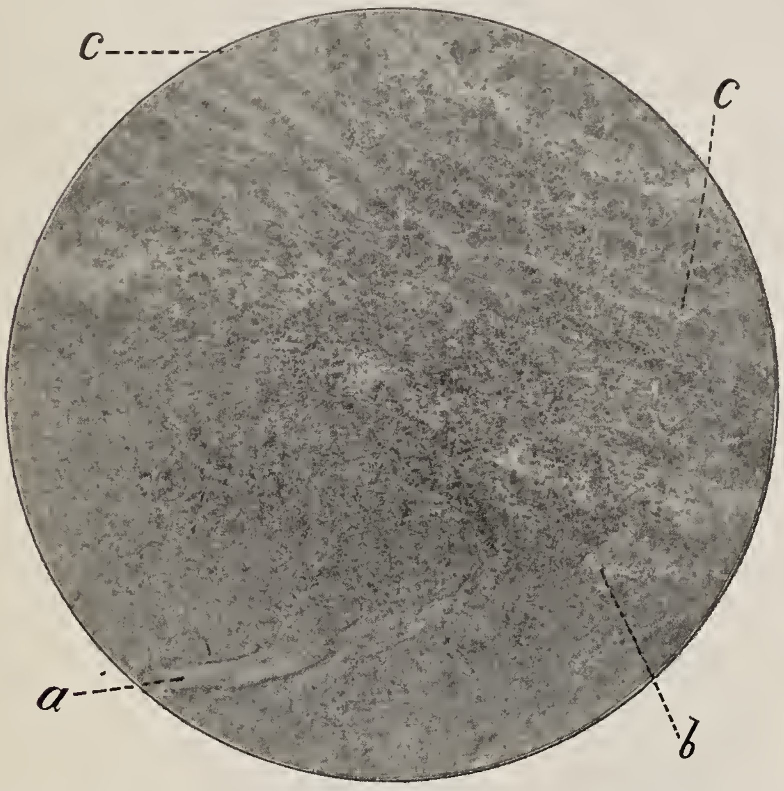

FIG. 22.—Area within circle of Fig. 21. × 50. *c*, *c*, Glandular portion showing zones of fibroid tissue all through; *b*, line between glandular and fibroid portions; *a*, remains of blood-vessel.

The drawing and photograph speak for themselves more forcibly than any words of mine, and especially when compared with the normal sketches.

In place of a tiny posterior lobe, scarcely a sixth of the entire mass, we find a large expanse of immature connective tissue forming fully two thirds of the section, while the large 5 : 1 glandular lobe is shrunken to a crescent-shaped belt of glandular tissue along the anterior border of the body, forming barely a third of the entire mass. The section is a horizontal one at the middle level of the gland, and was selected as a fair average from a number at various levels.

The marked atrophy of the glandular portion in this dwarf case, and its extraordinary hypertrophy in all the giant ones, is a most striking and suggestive coincidence, to say the least, though, of course, no conclusions can be based on "one swallow." The total size of the body was only slightly below the normal.

To sum up, we would respectfully submit the following conclusions:

(1) That the pituitary body is still functional.

(2) That disturbances of its metabolism are the principal factors in both acromegaly and gigantism, the difference between the results being simply due to the stage of individual development at which the disturbance of the function begins.

(3) That the nature of the overgrowth in both these diseases is primarily on the order of a pure functional hypertrophy; later, however, losing some of the definiteness of its impulse, and either producing immature tissue of a mixed type or resulting in simple hæmorrhagic exudation, with either cyst formation or complete breaking down of the tissue mass.

(4) That it seems probable, although upon this head the evidence is still uncertain, that some part is played by this body in "dwarfism," rickets, and the dwarf forms of cretinism.

(5) That a reflex disturbance of its function may possibly underlie the dystrophy accompanying pharyngeal adenoids.

(6) That it would appear to be a sort of "growth centre" or proportion-regulator of the entire appendicular skeleton.

The suggestion is also a tempting one, in view of the striking similarity of some of the symptoms of chorea to the tremblings, depressions, and dyspnœa of Andriezen's symptom group, that there may possibly be some relation between this disease and disturbances of the pituitary; and I am collecting materials and preparing to experiment upon this phase of the problem for future report. Such experiments as have been made in the treatment of acromegaly would appear to conform with the theory of its origin here presented.

Both pituitary extract and thyreoid extract have been tried in a number of cases, but in the great majority without any apparent result whatever, except that the thyreoid extract has appeared in some three or four cases to temporarily relieve the "myxœdemic" symptoms of the disease, such as mental dullness, loss of appetite, and abnormal conditions of the skin. Pituitary extraction has proved almost uniformly negative in its results, except in one case in which it appeared to be slightly beneficial, and in two interesting cases in which it actually seemed to aggravate the symptoms and hasten the course of the disease, a result which, if our theory that the disease is produced by a comparatively normal hyperfunctioning of the gland be correct, was, of course, only to be expected, and is similar to the aggravation of the symptoms of Graves's disease produced by the administration of thyreoid extract.

Nor can I refrain from calling attention to the singular form of the pituitary fossa, and petrous bars in the skull of the gorilla, as described in my report of "Lady Aama." If abnormal overgrowth is to occur, what more natural than that it should follow ancestral lines and tend to the production of the approximately anthropoid proportions which have been commented upon by Brissaud and Meige, Campbell, and other observers?

Rhachitic Dwarf.

Age, twenty to twenty-two. No. 1145.75, Mütter.
Height, three feet six inches (105 centimetres).

	Centimetres.
Skull, etc.:	
Circumference	52.0
Breadth	15.3
Length	18.4
Height	33.5
Pituitary fossa (antero-posterior)	1.0
“ “ breadth	2.1
Face, etc.:	
Nasal bones (outer border)	2.3
“ “ (inner border)	2.1
“ “ (combined breadth)	2.0
Arch of superior maxilla	12.2
“ “ inferior “	17.5
“ “ “ “ (alveolar)	11.6
Nasal aperture (width)	2.2
“ “ (height)	3.1
Orbital aperture (width)	4.1
“ “ (height)	4.0
“ “ internal depth	3.8
“ “ external “	4.0
Orbito-malar arch	21.0
Skeleton:	
Femur (left)	21.0
Tibia “	16.5
Foot “	16.4
Humerus (left)	13.2
Radius “	11.5
Hand “	11.8
Trunk “	49.0
“ (following curve)	51.0
Girth of chest (fourth rib)	54 6
Chest, antero-posterior. Diameter	10.0
Pelvic inlet, antero-posterior. Diameter	5.5
“ “ “ “ “ lateral	11.8
Between iliac spines (anterior)	20.6

White female dwarf (inmate of brothel); Cæsarean section performed to deliver a six-and-a-quarter-pound fœtus; survived three days (craniotomy previously attempted); no history.

Rhachitic Dwarf.

No. 2154, University of Pennsylvania.
Age (?).

	Centimetres.
Height (skeleton as mounted)	1.13 (45½ in.)
Femur and tibia	44.40
Humerus	13.60
Trunk (seventh cervical vertebra to between ischial tuberosities)	46.50
Skull:	
Cranial circumference	33.40
“ length	18.40
“ breadth	14.20
“ height	12.90
Face:	
Arch of superior maxilla	13.80
“ “ lower “	18.80
“ “ “ “ alveolar	13.80
Basion to symphysis	11.50
Pelvis, antero-posterior	4.80
“ transverse	9.60

Cretin Skull.

Schweiz. Apparently aged; molars fallen out except lower three.

	Centimetres.
Skull:	
Circumference of cranium	51.00
Breadth “ “	15.50
Length “ “	17.00
Height “ “	32 20
Pituitary fossa, antero-posterior	0.40
“ “ lateral	1.10
Basilar process	2.50
Face, etc.:	
Nasal bones (length) (outer)	2.40
“ “ “ (inner)	1.90
“ “ combined width	2.10
Arch of superior maxilla	11.10
“ “ inferior “	18.00
“ “ “ “ (alveolar)	11.80
Top of condyle to mental eminence	11.10
Depth of mandible at symphysis	3.10
Greatest width nasal opening	2.20
“ height “ “	3.30
“ width orbit	4.00
“ height “	3.90
Internal depth “	3.80
External “ “	3.80
Orbito-malar arch	21.40
Palate, height	4.05
“ width	3.80

Cretin Skull.

Schweiz, Canton Wallis.

	Centimetres.
Skull:	
Circumference of cranium	51.0
Breadth “ “	16.1
Length “ “	18.0
Height “ “	34.6
Pituitary fossa, antero-posterior	0.9
“ “ lateral	1.2
Basilar process (length)	2.9
Face, etc.:	
Nasal bones, length (external)	2.3
“ “ “ (internal)	1.5
“ “ “ combined width	2.8
Arch of superior maxilla	11.8
“ “ inferior “ (mental)	18.1
“ “ “ “ (alveolar)	12.5
Condyle to mental eminence	11.9
Anterior border of foramen magnum to symphysis	10.4
Depth at symphysis	3.1
Nasal opening, width	2.2
“ “ height	3.9
Orbital “ width	4.1
“ “ height	3.9
“ “ internal depth	3.8
“ “ external “	2.3
Orbito-malar arch	22.2

Cretin Skull.

Apparent age, seventeen (Hyrtl collection).

	Centimetres.
Skull:	
Circumference of cranium	49.0
Breadth “ “	15.1
Length “ “	16.9
Height “ “	33.0
Pituitary fossa, anterior	0.8
“ “ lateral	0.9
Basilar process	2.1

Face, etc.:	Centimetres.
Nasal bones, length (outer border)	2.3
“ “ “ (inner “)	2.0
“ “ “ combined width	2.0
Arch of superior maxilla	12.6
“ “ inferior “	10.1
“ “ “ “ (alveolar)	12.2
Top of condyle to mental eminence	10.6
Anterior border of foramen magnum to symphysis	11.1
Depth of mandible at symphysis	3.0
Greatest width of nasal opening	2.1
“ height “ “ “	2.9
“ width of orbit	3.8
“ height “ “	3.4
Internal depth “ “	4.5
External “ “ “	4.4
Orbito-malar arch	22.2
Palate, length	3.9
“ width	4.3

The Kentucky Giant (Mütter Museum).

Apparent age, twenty-two to twenty-four years; height, seven feet six inches and a half (2.26 metres).

Skull, etc. Cranial capacity, 2,320 cubic centimetres.	Centimetres.
Circumference of cranium	64.0
Breadth “ “	14.5
Length “ “	33.4
“ “ “ (internal)	19.5
Height “ “ (binaural)	35.1
Frontal sinuses, transverse	7.5
“ “ vertical	7.0
“ “ antero-posterior (supraorbital)	2.4

Binaural line lies 3.5 centimetres behind bregma.

Pituitary fossa:	
Extreme antero-posterior diameter	2.7
“ lateral diameter (anterior-clinoid)	4.2
Depth	1.3
Basilar process	4.3

Face, etc.:	
Lacrymal canal, width, 0.9; antero-posterior	0.8
Nasal bones, length (outer border)	3.6
“ “ “ (inner “)	2.2
“ “ combined width (opposite ridge)	3.1
Arch of superior maxilla external (tuberosity to tuberosity)	18.1
Arch of inferior maxilla (angle to angle, lower border)	26.1
“ “ “ (alveolar) maxilla (anterior border of ramus)	17.4
Palate, length	6.1
“ width	5.1
Top of condyle to mental eminence	15.2
Anterior border of foramen magnum to symphysis	15.1
Depth of mandible at symphysis	4.0
Greatest width of nasal opening, infraturbinal	3.8
“ height “ “ “	4 7
“ width of orbit	5.2
“ height “ “	4.2
Internal depth “ “	5.9
External “ “ “	4.6
Orbits, malar arch (post-glenoid)	30.6

Skeleton:	Centimetres.
Length of femur	65 0
“ “ tibia	55.0
“ “ foot (calcaneum to tip of hallux)	30.6
“ “ humerus	47.5
“ “ trunk (seventh cervical vertebra to between ischial tuberosities)	78.0
Length of spine, following curve	83.2
“ “ hand, scaphoid to tip of middle finger	21.4
Breadth of sacrum (first vertebra) (anteriorly)	16.0
Length “ “ (anteriorly)	13.2
“ “ coccyx (posteriorly)	7.4
Breadth “ “ “	9.3
Girth of chest (fifth rib and seventh dorsal spine)	109.7
Antero-posterior diameter of chest	43.0
“ “ “ “ pelvic inlet	14 0
Between anterior superior spines of ilia	35.0

Marked epicondylar processes: grooved below. Fibula pressed close against and *behind* tibia in middle third. Floors of acetabula bulge into pelvis. Four sacral vertebræ and three coccygeal. Olecranon fossa widely perforated on right side.

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SOME OBSERVATIONS UPON SYPHILITIC MANIFESTATIONS IN THE UVEAL TRACT—THE IRIS, CILIARY BODY, AND CHORIOID.

By PAUL TURNER VAUGHAN, B. Sc., M. D.,

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No constitutional disease manifests itself so frequently by producing eye symptoms as does syphilis.

During the past year seventy cases of this disease exhibiting eye symptoms have been treated by me in my private practice, and of these seventy cases the uveal tract (iris, ciliary body, and chorioid) was involved twenty-nine times, or in 41.4 per cent. of the total number.

In twenty-one of these twenty-nine cases the diseased process was confined to the iris and ciliary body, and in eight the chorioid was primarily involved. From these figures it is seen that among eye affections caused by syphilis iritis plays an important rôle.

Von Schröder * remarks that the right eye was involved more frequently than the left in the proportion of 108 to 84 among 192 of his cases of syphilitic iritis. Schmidt-Rimpler † says that among statistics collected from thirty-four of his cases of syphilitic iritis, one eye only was involved eighteen times, and that of these eighteen the right eye was affected thirteen times. In my twenty-one cases of syphilitic iritis the right eye was involved five times, the left fourteen times, and both eyes in two cases; consequently I do not agree with them that the right iris is more susceptible to the syphilitic poison than the left.

Hypopyon existed in two of my cases; in one of them the primary syphilitic infection had occurred eight years previously, and in the other five years. In both of them the inflammation was acute, and gummata existed in the iris of each eye, in one near the pupillary margin, in the other near the ciliary margin. Schmidt-Rimpler says that hypopyon is an exceedingly rare condition, and that among forty-seven cases of syphilitic iritis he has seen it only twice.

Syphilitic iritis may be plastic, serous, papular, or gummatous in character.

Bull ‡ states that iritis in a great majority of cases is an early lesion of syphilis, though it may be met with as a late manifestation; that, as a rule, only one eye is attacked at first, but the other soon becomes affected; that the iritis may be of three varieties—plastic, serous, or gummatous; that the first two varieties do not differ in their symptoms from iritis due to other causes, and that the sole variety of iritis absolutely indicative of syphilis is the "iritis gummosa," and to this variety alone should the term syphilitic iritis be applied.

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* *Beitrag zur Kenntniss der Iritis syphilitica.* Dorpater Dissertation, Petersburg, 1881.

† Beiträge zur Kenntniss der Iritis syphilitica. *Berliner klinische Wochenschrift*, 1872, No. 23.

‡ *Medical News*, May 20, 1899.

Fuchs * says: "Syphilitic iritis generally belongs to the secondary stage of syphilis. It makes its appearance soon after the first eruptions upon the skin (macular or papular), for which reason we may compare the nodules in the iris to papules or to condylomata, and may designate the iritis as iritis papulosa. Generally the iritis appears during the first year after infection has taken place. More rarely the iritis breaks out during the later stages of syphilis, and is then not associated with the formation of nodules. In exceptional cases, however, nodules do show themselves in this late form also, and they must then be regarded as gummata (iritis gummosa). These are observed both in the iris and ciliary body."

My experience accords entirely with that of Schmidt-Rimpler,† that in iritis with the formation of nodules, as a rule, true gummata are not present, but that these can appear during the later stages of syphilis, and that the tendency, with the nodules existing in the iris during the early stages of syphilis, is not destructive in character; also, that these nodules are analogous to the syphilitic condylomata and skin papules seen during the secondary stage of syphilis. Fuchs,‡ in a case of syphilitic iritis, where no nodules were visible macroscopically, observed them by microscopic examination; there was no limiting membrane, no sharp line of demarcation; each papule consisted of small cells, and in the centre lay typical giant cells.

The observations of these latter authors refute the statement of Bull that only "iritis gummosa" should be designated as syphilitic iritis. Not all cases of iritis occurring in individuals who have become infected with syphilis are cases of syphilitic iritis, but in my opinion all cases of iritis occurring in syphilitics which respond to antisyphilitic treatment are syphilitic in nature, even though no distinctive syphilitic features, as condylomata, papules, or gummata, are visible in the iris. To illustrate this point, I had a patient in whom the rheumatic diathesis was very marked; he contracted syphilis, and later gonorrhœa, and when he came under my observation he had an acute iritis. He informed me that since he had contracted gonorrhœa he had never been entirely free from a gleety discharge, but periodically it became much diminished, and that during these quiescent periods he always had an attack of iritis. This was clearly a case of gonorrhœal iritis in a syphilitic, and it yielded readily to atropine instilled into the eye with irrigation and treatment of the urethral inflammation. Such cases as this should certainly not be classed as syphilitic simply because the person happens to have contracted syphilis.

Hirschberg * says that the incipient symptoms of syphilitic iritis are generally very insidious and consist in subjective sensations of light rather than failure of visual power, and that almost every part of the eye is more or less affected.

My observation has been that the symptoms of plastic and serous iritis when due to syphilis vary little from the symptoms of these varieties of iritis when due to other causes. Pain is one of the most prominent symptoms, and it extends sometimes over the entire half of the head, corresponding to the branches of the supraorbital nerve. The pain is usually worse at night, and is always aggravated by bright illumination. Schmidt-Rimpler † remarks that almost all cases due to syphilis are very plastic, and that attachments between the lens capsule and iris are frequent. Swanzy ‡ states that "the form with exudation on the surface of the iris and in the pupil is the one attended by the most severe pain; the form with punctate deposits on the posterior surface of the cornea as its main characteristic is generally unattended by pain; while the form with marked circumscribed deposits, or condylomata in the stroma of the iris, is often excessively painful, and again completely painless."

Vision is more or less impaired, depending upon the degree of involvement of the ciliary body. Friedenwald # makes the assertion that the cornea is affected in every case of iritis, and that in no case does it retain its perfect transparency. I do not agree with this statement, for in several of my cases the cornea remained perfectly clear and transparent. I believe that if the ciliary body be involved in the inflammatory process to any appreciable extent then we always have a deposit upon the posterior surface of the cornea. Inflammation of the iris or of the ciliary body, independent each of the other, is of rare occurrence; this is necessarily so, owing to the fact that histologically they are closely related, that they form a continuous membrane, and that they derive their blood supply from the same source. In some cases, however, we do have iritis without involvement of the ciliary body, but these cases are rare, and it is in them that the cornea remains clear. Personally I have never seen a case of cyclitis where the iris and the chorioid remained intact during the inflammation in the ciliary body, but such a trustworthy observer as Swanzy || asserts that "it is

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* *Lehrbuch der Augenheilkunde*, fifth edition, 1895, p. 328.

† *Erkrankungen des Auges im Zusammenhang mit anderen Krankheiten.*

‡ Iritis Syphilitica. *Archiv f. Ophthalmologie*, 1884, Bd. xxx, Abth. 3, p. 139.

* *Deutsche medicinische Wochenschrift*, October 25, 1888.

† *Erkrankungen des Auges im Zusammenhang mit anderen Krankheiten.*

‡ *Diseases of the Eye*, sixth edition, p. 283.

# *Archiv f. Ophthalmol.*, April, 1896.

|| *Op. cit.*, p. 278.

a matter of surprise to learn that any one of the three divisions of the uveal tract can undergo inflammation, while the other two remain perfectly healthy"; and adds, a little farther on, that this is by no means uncommonly the case.

In iritis the iris is very much congested, and this congestion causes a change in color; a blue or gray iris becomes green-looking, and a brown one more reddish-brown. This symptom is more pronounced in irides of light color. The pupil is usually contracted and is very sluggish in its movements; this is due to three causes: congestion, the exudation of inflammatory products, and to attachment of the iris to the lens capsule. There is usually pericorneal injection, but I have seen cases of a quiet nature where this symptom was entirely absent, and where dilatation of the pupil had to be resorted to in order to make a diagnosis. Jackson * quotes Walker † in regard to this form of iritis. Walker describes it as "a painless iritis; an insidious and dangerous affection, easily mistaken for less serious diseases, and readily diagnosticated by the instillation of a mydriatic."

Syphilitic cyclitis may be plastic, serous, or gummatous in nature, and is almost invariably associated with iritis. Simple cyclitis without iritis occurs but seldom, and then only in the chronic form (Fuchs). The symptoms usually met with are pain, diminished vision, due to deposits upon the posterior surface of the cornea, precipitates in the vitreous, and exudations between the iris and lens capsule. My observation has been that when vision is much impaired the chorioid is also usually involved. Ciliary injection is nearly always present, and the aqueous is turbid.

Galezowski,‡ quoted by Jackson,# in studying the manifestations of syphilis in the ciliary body, says: "1. Whenever syphilitic iritis is accompanied by a punctate keratitis, either chronic or recent, areas of atrophic chorioiditis will be found in the ora serrata. 2. In parenchymatous interstitial keratitis, when due to hereditary syphilis, disseminated plaques, which sometimes reach to the posterior segment, are seen in the ora serrata; more often, however, they are confined to the ciliary region. 3. Diffuse syphilitic chorioiditis, with disease of the vitreous, always presents atrophic alterations of the ora serrata, and the opacities of that humor are due to this latter lesion. 4. In ataxic atrophy of the discs, atrophic and pigment changes occur in the ora serrata. 5. In syphilitic inflammation of the cerebral or cerebro-spinal nerves, characteristic signs of the disease appear in the ora serrata."

Cyclitis is invariably a dangerous disease and usually results in loss of vision. Bull || says that in cyclitis gummosa the gummatous infiltration has a strong tendency to involve the iris and sclerotic, and that in these cases the prognosis is most unfavorable, the eye usually becoming rapidly atrophic.

In one of my cases—a boy, eight years old, with inherited syphilis—unilateral iritis, cyclitis, interstitial keratitis (bilateral), and chorioiditis all existed. There was a small gumma upon the iris near the ciliary margin. He was put upon vigorous antisyphilitic treatment, and in four weeks the gummatous growth had disappeared. After six weeks of active treatment the iritic and ciliary symptoms also disappeared—the keratitis prevented an examination of the chorioidal condition. The patient, who lived in the northwest, was brought here for treatment, and after six weeks returned to his home, consequently I lost sight of him and am unable to give the subsequent history of the case. Gallenga,* quoted by Jackson,† reports two cases of syphilitic gumma of the ciliary body: "The tumor passed through the iris angle into the anterior chamber and invaded the iris; this latter was also the seat of the usual condylomata. In one case there was perforation of the sclera and conjunctiva, through which most of the broken-down tumor mass was evacuated." Under treatment the results in both cases were good.

The chorioid can become secondarily involved in syphilitic iritis, or it can be diseased independent of inflammation in this structure; this latter is by no means uncommon. Of course, disease of the chorioid can only be positively diagnosticated by means of the ophthalmoscope.

Fuchs ‡ states that the visual disturbances in chorioiditis are produced by implication of the retina and vitreous, and that the patient's attention is first directed to the eye by these complications; also that it is only later in the course of the disease, when atrophic spots have developed, that gaps in the visual field are noticed.

My observation has been that syphilitic chorioiditis is always exudative in character, but Swanzy # remarks that in infancy purulent chorioiditis may be caused by, or associated with, inherited syphilis. I have never seen a case of purulent chorioiditis which I could attribute to syphilis; all of my cases of syphilitic chorioiditis have been of the exudative form, consequently I shall deal with that form alone. The varieties of exudative chorioiditis usually met with in syphilis are the disseminated, the central, and syphilitic chorio-retinitis. Fuchs speaks of an anterior chorioiditis in which the exudative spots are deposited at the periphery of the chorioid, and which is sometimes combined with chorioiditis surrounding the papilla. He attributes this form to inherited syphilis, and remarks that it is usually ob-

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* *Sajous's Annual.*

† *Philadelphia Polyclinic*, January 9, 1897.

‡ *Gazette des hôp.*, April 18, 1894.

# *Loc. cit.*

|| *Loc. cit.*

* *Annal. di ottal.*, xxv, 2, 3, p. 210.

† *Loc. cit.*

‡ *Lehrbuch der Augenheilkunde*, fifth edition, 1895, p. 328.

# *Op. cit.*, p. 307.

served in young persons. Schmidt-Rimpler * says that in chorioiditis due to syphilis the changes in the chorioid are located either in the region of the macula, and appear as pink, light yellow, or white spots, or are situated in the extreme periphery, in which case usually small black spots are visible adjoining pale ones; also, that occasionally chorioiditis areolaris may exist. In my eight cases of syphilitic chorioiditis occurring during the past twelve months, four were central in character, and four were of the disseminated form. In all of the cases of central chorioiditis a central defect of vision existed. Förster,† quoted by Schmidt-Rimpler, has observed that not seldom in the variety of chorioiditis where the blood-vessels at the posterior pole of the eye are altered, a defect of the visual field exists which encircles the fixation point; the periphery remains free, and even the region near the fixation point functionates, but in a lessened degree. In central chorioiditis there is always an exudate in the region of the macula, and absolute central scotoma is a prominent symptom (Swanzy). In disseminated chorioiditis the ophthalmoscopic appearances consist of haziness of the vitreous, and circumscribed pinkish-yellow exudations (in recent cases) in the chorioidal tissue. These exudations can be absorbed, leaving a comparatively healthy chorioid, or they can result in atrophic cicatrices, in which case round white spots with pigment borders or pigment spots will take their place (Swanzy). Usually the exudations at first are peripherally situated, but with each successive recurrence of the disease an advance is made toward the macula.

In regard to syphilitic chorio-retinitis, I am of the opinion that the process is primarily one involving the chorioid, and that the retina is only secondarily involved. I do not mean to intimate that a primary syphilitic retinitis does not occur, for Nettleship has anatomically demonstrated that it does occur. There is a fine, dustlike opacity diffused through the vitreous in this condition. Some authorities go so far as to say that this variety of opacity is almost pathognomonic of syphilis. The retina is principally involved in the region of the optic-nerve entrance—that is, in this region there is an opacity of the retina which diminishes peripherally. The borders of the optic nerve are indistinct and the optic disc is somewhat hyperæmic. Chorioidal changes exist as in disseminated chorioiditis, but in a modified form. Vision is impaired as the disease progresses toward the macula, and in its later stages scotomata are frequently met with, and interfere with vision in proportion as they are centrally located. Flashes of light are complained of in nearly all cases.

Syphilitic disease of the deep layers of the cornea should also be dealt with under this heading, as these layers, according to the teachings of embryology, constitute a part of the uveal tract; this, however, would produce too lengthy an article, so I have confined myself to a discussion of the pathologic conditions produced by syphilis in the iris, ciliary body, and chorioid, leaving such affections as keratitis parenchymatosa and keratitis punctata syphilitica for discussion at some future time.

EMPYEMAS
OF THE NASAL ACCESSORY CAVITIES,
WITH A REPORT OF CASES WHERE THE ANTRUM OF HIGHMORE WAS INVOLVED.

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Systematized knowledge regarding empyemas of the nasal accessory cavities is a growth of recent years. Only within the last decade have the great frequency of occurrence, their significance, and methods of differential diagnosis and treatment been learned, although it is true that even fifteen or twenty years ago some work was done in that line. Ignorance of the precise anatomy of the sinuses, with their relations to adjacent structures, accounts in a large measure for the former obscurity of the subject. The term ignorance is used advisedly, and any one who has studied on specimens the intricate anomalies of nasal anatomy must agree with this view. No two noses are alike. The conformation of the facial bony structures varies in the individual more even than the countenance itself.

To bring order out of this seeming chaos of individual variations required accurate investigators, immense research, and access to hundreds of anatomical preparations.

Foremost among the investigators who reduced the subject to an anatomically scientific basis is Zuckerkandl, of Vienna. Gruenwald and numerous others have done their share in the work. The clinicians Marcus Hajek, of Vienna, Kuester, Moritz Schmidt, of Frankfort, Schech, Fraenkel, and others have also done much original work in elucidating the subject, and have adapted the combined anatomical findings to the diagnosis and treatment of these empyemas, until to-day there is presented to us a systematized view of the subject, and we are now able to apply this cumulate knowledge to effect curative treatment of these diseases.

Empyemas are of far more frequent occurrence than has heretofore been supposed. In a majority of all cases of acute coryza with excessive rhinal flow their presence is more than probable. They are frequent unrecognized complications of all the acute exanthemata and infectious diseases where the nasal mucous membrane is involved. This is especially true of influenza, measles, and erysipelas. It seems probable that empyemas are a constant accompaniment of the first-

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* *Erkrankungen des Auges im Zusammenhang mit anderen Krankheiten.*

† Zur klinischen Kenntniss der Chorioiditis syphilitica. *Arch. f. Ophthal.*

mentioned disorder. They occur also during acute iodism, and are sometimes, though rarely, due to traumatism. Empyemas of Highmore's antrum are frequently caused by abscess at the roots of the teeth, and especially where the second bicuspid or first molar is involved, for the roots of these teeth lie nearest to the antrum, often being separated from the cavity by only a thin plate of bone, which is sometimes absorbed or necrosed on account of the disease at the tooth root, leaving a clear opening into the antrum after extraction of the tooth. This fact long since led to empyema of the antrum being considered as belonging to the domain of dental surgery, and was the chief recognized cause of antral empyema.

Fortunately, when due to coryza, this acute implication of the accessory sinuses usually subsides with the regression of the acute catarrh, and results in perfect restoration with its subsidence. The ordinary duration of these acute empyemas is two or three weeks, and even after existing for as long as six weeks they tend to spontaneous recovery, especially if the natural openings remain unobstructed.

These acute empyemas are rarely diagnosticated, and treatment further than of the acute inflammation of the nasal mucous membrane is uncalled for. Although theoretically denied, the act of voluntarily blowing the nose tends to, and does, empty the accessory cavities of accumulated muco-pus or sero-pus.

The two chief symptoms which empyemas produce are, first, a greater rhinal flow than exists in a simple acute catarrh, usually unilateral; and second, more intense neuralgias than occur in a case of coryza where the sinuses are not implicated. This excess of pain is easily accounted for when we remember the rich distribution of the trifacial nerves to the lining membrane, for all of the cavities are supplied with sensory fibres by the second division of the fifth nerve, except the frontal, which is furnished from the first division.

The bacteriology of the subject still leaves room for original investigation. Some of the pus bacteria are always found. Usually there are present the *Staphylococcus pyogenes albus* or *aureus*, the *Streptoccocus pyogenes*, or combinations of these varieties; occasionally the *Bacillus pyocyaneus*, while the *Bacillus pyogenes fœtidus* and *Bacillus tuberculosis* are rather infrequently found. The diploccoccus of pneumonia is nearly always present (E. Fraenkel), and the influenza bacillus is usually present in inflammations following that disease.

Prognosis, according to the bacteria present, is not yet satisfactorily settled, except that we know that where the fœtid bacillus exists the prognosis is graver, and that hope of radical cure is extremely unfavorable where the tubercle bacillus obtains. Rarely larvæ of various flies have been known to cause the disease, their existence producing intense subjective symptoms (Moritz Schmidt).

It is another question when the suppuration of an accessory cavity has continued for more than six weeks. In this case spontaneous healing rarely or never occurs, although within three months from onset the case may still be considered of the acute or subacute type, and the mild method of washing out the cavity through the natural opening, by means of a cannula, with some unirritating sterilized antiseptic solution or sterilized normal salt solution, with or without subsequent insufflation of powder, may effect a cure after only two or three sittings.

The cavities concerned in this disease are five in number—the antrum of Highmore, the frontal sinus, sphenoidal sinus, anterior ethmoid cells, and posterior ethmoid cells. This division of the ethmoid cells and discussion of them as two separate cavities is justifiable not so much from their relative position and number, which vary extremely in each individual, as from the location of the natural opening, which is constant, the anterior ethmoid cells invariably discharging into the middle, the posterior ethmoid cells into the superior, meatus of the nose.

Where the empyema has existed more than three months (of course this division as to time duration is artificial and arbitrary, but nevertheless practical from a clinical standpoint) the washing out through the natural openings rarely effects a cure. Exception of the frontal sinus may be made, for its drainage, from its position, is more perfect than of the other cavities. Should then cleansing through the natural opening prove ineffectual, or, as occurs in many cases, be impossible of performance, operative treatment is required.

So far, open empyemas only have been regarded. Quite other conditions exist where the natural openings are occluded, forming the so-called closed empyemas. Here the subjective symptoms are more severe. The empyema may at first have been open, and later have become closed, owing to swelling of the mucous membrane, or to the formation of granulations or polypoid hypertrophies around the outlet of the natural opening. In this instance the patient gives a history of a former unnatural discharge of muco-pus from the nose, having probably soiled from three to six handkerchiefs a day. Then suddenly the nose became dry, the discharge ceased, and within the next day or two neuralgic pains of the face or head, with maybe a feeling of general inertia and lassitude, came on. The symptoms vary greatly with the individual. No special localization of the neuralgia can be constantly observed. As Hajek, of Vienna, expresses it, the patient is quite as liable to locate pain in the coccyx as elsewhere. Nor is it possible to absolutely differentiate the cavity involved by localization of the pain.

Some authorities give rules for differential diagnosis according to the site of pain. Moritz Schmidt states that with implication of the antrum the most usual seat of pain is above the brows; with the frontal sinus, limited pain at the supraorbital notch; with the ethmoid cells, at the vertex and behind the eyes; with the sphenoidal sinus, at the vertex or occipital region. But remember that, as a rule, the site of pain may be anywhere, and its localization is not of absolute diagnostic moment.

These closed empyemas may lead to disastrous results. If not suspected and diagnosticated, they may cause pressure necrosis or ulceration of the bone, and break their way externally or into adjacent cavities—into the orbit or, worst of all, into the cerebral cavity. This last unfortunate termination occurs only where the ethmoid, frontal, or sphenoidal sinus is implicated.

A closed empyema of Highmore's antrum may break through the hard palate into the mouth, the pus may find its way into the soft tissues of the face, or burrow down the muscular sheaths in the neck. That of the ethmoid cells, frontal sinus, or even the antrum may break into the orbit, inflicting severe damage to the eye before its nature is properly recognized. Even the closed empyemas are not excessively rare of occurrence, as stated by Bosworth, nor are they impossible of diagnosis in the early stage before bulging of the wall of the cavity, fluctuation, or breaking through of the pus externally has occurred. Statements to this effect in former text-books of surgery, rhinology, or ophthalmology are no longer true. The rhinologist of to-day is culpable if he fails to exhaust every diagnostic means at his command in every obscure case that leads to a suspicion of a closed empyema.

The patients are often worn out by the pain, which may be excruciating, lasting for months, and destroying repose unless they are under the influence of hypnotics. They are frequently neuræsthenic, can not fix the attention, suffer from lassitude, irritability, and all the symptoms which collectively are known as aprosexia.

Contraction of the visual field has been observed, but the symptom seems to occur chiefly in hysterical subjects, and to differ in no material point from the condition as a purely hysterical accompaniment.

Accurate notes on many hundreds of cases, where diagnosis has later been confirmed by operative treatment, must be collated and analyzed before subjective symptoms are of great service from a diagnostic standpoint. Objective findings are of chief importance. An empyema is suspected from the history given by the patient.

Diagnosis.—Look into the nose with a brilliant illumination. Observe first if there is any muco-pus in the cavity, especially if the middle turbinated body is covered with pus or dried crusts.

If this is found, cleanse away the crusts entirely with the spray and pledgets of moistened cotton. Feel now with the probe in order to discover whether necrosed bone exists, for rough bare bone usually means syphilis, sometimes tubercular ulceration, and rarely if ever a simple empyema. Necrosed bone being eliminated, wait a moment or two and look again. If pus is seen coming down into the middle meatus, between the middle turbinated body and the lateral wall, it indicates either disease of the external surface of the middle turbinated body or an empyema of one of three cavities—viz.: the antrum of Highmore, the ethmoid cells, or the frontal sinus.

In order to limit this paper within reasonable bounds further remarks will be devoted exclusively to disease of the antrum.

The nose should again be thoroughly cleansed; the patient should incline the head forward and turn opposite to the suspected side. This puts the natural opening of the antrum at the lowest point. After a few minutes in this position examine the nose again, and if there is abundant discharge coming down from the middle meatus it renders implication of the antrum possible. A small electric light, two to four candle power, is now introduced into the mouth; it illuminates the entire face, but on the suspected side the illumination seems less distinct, the shadow deeper, and the shadow lines not so clearly marked. The diagnosis of pus in the antrum is now probable, but by no means certain. The next step is to wash out the antrum. In a case where the anatomical conditions are favorable this may be accomplished by passing a cannula into the natural opening, either through the hiatus semilunaris or through the accessory opening. This can be done in many cases, provided the middle turbinated body stands away from the lateral wall and the bulla ethmoidalis does not project too far downward nor into the middle meatus. Where the middle turbinated body lies curved back upon the lateral wall, leaving no room for turning the bent probe or cannula, or where the bulla ethmoidalis projects downward or into the middle meatus, access to the cavity through the natural opening is impossible of performance. Should syringing through the natural opening prove successful, the return flow brings back a turbid fluid, possibly containing clots of muco-pus, and the discharge has an offensive odor.

If the washing out through the natural opening can not be accomplished there is one other practical method of confirming the diagnosis. A thick, large, *straight* aspirating needle is passed into the nose in the *lower meatus* underneath the inferior turbinated body, a little posterior to its middle half; the external end is pressed downward and toward the middle line, forcing the point up to the juncture of the inferior turbinated body with the lateral wall; the needle is now thrust through the bony partition into the antrum.

This point of puncture is important, for in front of and below it the bony wall is too resistant to puncture with the needle. The shaft of the needle is now connected by a bit of rubber tubing with a syringe, and the cavity is washed out with a sterilized boric-acid solution. The return flow comes through the natural opening, and, if the cavity contains pus, affords a turbid fluid containing a sero-pus or muco-pus of offensive odor. The diagnosis is now certain.

Operative treatment is next to be carried out. The points desired are the freest possible drainage and ease of repeated cleansing. This is best accomplished by drilling through the alveolar process, where a tooth has been extracted. The point of choice is the second bicuspid or first molar, for the roots of these two teeth lie nearest to and at the lowest point of the antral cavity. Often only a very thin plate of bone exists between the roots of these teeth and the cavity. Sometimes, in the case of abscess at the root of the tooth, this plate has been absorbed, and there is already a direct opening into the cavity. But this is usually too small to utilize for advantageous treatment. We drill through first with a bur of three to four millimetres in diameter, and finally enlarge the opening to at least six millimetres. A dental engine or electric motor is almost indispensable for the operation, though a hand drill can be used. The operation is rendered almost painless if a few drops of a ten-per-cent. solution of cocaine are injected into the soft tissue on each side of the bony process. Should the second molar, first bicuspid, or even the canine tooth of the affected side be partially decayed, it is possible to enter the antrum after either of them have been extracted, but the direction of the drill must be slightly forward or backward, according to the tooth removed, and the thickness of bone through which the drill must pass will be appreciably greater.

If all the teeth are healthy, and the patient is a young woman who will lose in personal appearance by the loss of a sound tooth, an opening can be made with drill or chisel through the inferior meatus of the nose, at the same point recommended for the experimental puncture, or slightly anterior to this.

Should the mucous membrane of the antrum be greatly thickened, infiltrated, or covered with granulations, cure by either of these methods is rarely or never attained. As a last resort the upper lip may be reflected and a large opening into the antrum be made through the canine fossa, followed by carefully scraping away all granulations with a sharp spoon; subsequent packing with iodoform gauze or insufflation of iodoform, iodol, or boric acid, and the washing out of the cavity with antiseptic solutions, preferably a sterilized, warm, saturated solution of boric acid, preceding and following hydrogen peroxide, may be tried.

Chiari believes in packing the cavity through the opening in the alveolar process with strips of iodoform gauze. Having seen no satisfactory results from its use, I do not prefer the method.

Hajek objects to frequent washing out of the cavity, preferring the dry treatment by insufflation. A combination of the wet and dry treatment has proved most serviceable, according to my limited experience.

The following cases are typical of the milder forms of empyema occurring in Highmore's antrum.

Case I.—White man, aged fifty-one, suffering from an acute coryza. He complained of intense neuralgic pain in the region of the right eye and forehead; stated that this pain occurred with almost every acute cold which he contracted and was usually relieved after a few days rather suddenly, a profuse yellowish discharge from the right nostril preceding the relief of the neuralgia.

On examination, nothing was observed beyond rather thickened congested mucous membrane and engorged turbinates. The nose was cocainized with a pledget of cotton saturated in a ten-per-cent. cocaine solution. Five minutes later the engorgement was much diminished, the turbinated bodies were smaller, though the anterior end of the middle turbinated was evidently hypertrophied; a small amount of muco-pus was seen coming from the middle meatus, between the lower edge of the middle turbinated and the lateral wall. This was wiped away, but it soon reappeared. An attempt to probe the antrum through the natural opening having failed, the anterior hypertrophied end of the middle turbinated was snared off. Probing was successful, and a Hartman cannula was passed and the cavity syringed; the return flow brought clots of muco-pus of slightly offensive odor. The neuralgia was almost instantly relieved.

This washing out of the cavity was repeated a week later for the purpose of relieving a recurrence of the neuralgia, with the same result as at first. The cavity continued to discharge for the next few days, and then ceased. Two months later there was no recurrence, and the patient complained of no further discomfort.

Case II.—White woman, aged forty-two. About eleven months ago she had an abscess at the root of the second upper bicuspid tooth of the left side, which rendered extraction necessary. She experienced no further pain. She had suffered from a severe acute coryza (probably influenza) more than six months ago. For the past few weeks she had been aware of a slight mucopurulent discharge from the left nostril, and noticed a slightly offensive odor. She had no pain or discomfort.

Examination showed an engorgement in the left nostril, especially of the anterior end of the middle turbinated, which lies close to the lateral wall. The nose was cocainized with a ten-per-cent. solution, and after a few minutes pus was seen coming from the middle meatus. The anterior end of the middle turbinated was thickened. Small polypoid hypertrophies were seen apparently springing from the processus uncinatus.

The mucous membrane of the sæptum opposite the anterior end of the middle turbinated was hypertrophied. An attempt at probing the antrum through the natural opening was unsuccessful, and the hypertrophied tissue on the lateral wall was removed with a snare. On account of hæmorrhage, further work was postponed until the next day. Then muco-pus flowed in greater abundance from the middle meatus, and increased in amount when the head was lowered and turned toward the right side. Attempts at probing the natural opening again failed. Transillumination was not tried. Experimental puncture with an aspirating needle through the lower meatus, as described above, and washing out of the cavity with a warm boric-acid solution brought back a turbid fluid of offensive odor, and containing clots of muco-pus.

Operation through the alveolar process, where the second bicuspid tooth had been extracted, was performed painlessly under cocaine on the following day by means of a bur worked by an electric motor. A good opening into the antrum, about six millimetres in diameter, was made.

The cavity was washed out with warm boric-acid solution, through a cannula inserted into the antrum. The fluid again returned turbid, with several large clots of muco-pus. The offensive odor was less marked. A fifty-per-cent. solution of hydrogen peroxide was now cautiously and slowly injected, and the cavity again washed with boric-acid solution. The excess of fluid was removed by inflation with a Politzer bag, followed by insufflation of dry boric-acid powder. The two latter were performed through a large hard-rubber ear catheter introduced through the alveolar opening into the antrum.

This treatment was continued almost daily for four weeks, then at longer intervals for three more weeks, chiefly dry, syringing being discontinued, and only boric-acid insufflation used. Two years later the cure was complete, and the opening through the bone has closed.

Case III.—White woman, aged about thirty-five. One month prior to examination she contracted an acute coryza, which was accompanied almost from the onset with acute neuralgia of the left side of the face, over the superior maxilla, over the left frontal region, and in the teeth, with, at times, headache at the vertex. The neuralgia of the teeth was general, but there was especial pain and tenderness on pressure, confined to the upper second bicuspid and the first molar of the left side. This pain was most marked in the first molar. The pain, at first intermittent, became constant a week before I saw her.

Her physician sent her to the dentist. He pronounced the affected teeth sound and containing a live nerve. He stated that there was no possibility of abscess at the root of either of the affected teeth, and brought the patient to my office.

Rhinoscopic examination showed general congestion of the nasal mucous membrane and engorgement of the turbinated bodies. She stated that the discharge from the left nostril was slightly greater than from the right. The nasal mucous membrane was exceedingly hyperæsthetic, and the patient was excessively nervous from the continual pain. Cocainization reduced the congestion and swelling, but did not render the membrane completely insensitive. Both the middle and inferior turbinated bodies curled close back upon the lateral wall. After cocainization had reduced the swelling, pus was seen coming from the middle meatus, from behind the anterior end of the middle turbinated. From the position of the latter, probing of the natural opening was anatomically impossible.

Transillumination showed a doubtful shadow over the left antrum. Experimental puncture was twice attempted, but, owing to the position of the inferior turbinated and the extreme hyperæsthesia of the nasal mucous membrane, which could not be overcome even by the strongest solutions of cocaine, the attempt proved unsuccessful. Being morally sure that implication of the antrum existed, I explained the matter fully to the patient. I told her that the diagnosis was most probable, but not certain, and asked if she was willing, under the conditions, to lose the first molar tooth.

She promptly consented, and with great misgiving on the part of both myself and the dentist, the first molar was extracted.

Operation was performed as in the preceding case. A large amount of turbid fluid with clots of muco-pus of offensive odor returned.

The neuralgia diminished within a few hours and ceased completely on the following day, and only a slight soreness remained.

Treatment was conducted on the same lines as in Case II.

On account of confinement, subsequent illness in the family, and a three months' absence from home, this patient passed from notice. Owing to the persistence and character of the discharge, I inclined to the opinion that a radical operation through the canine fossa, with curettement, would have been necessary in this case before a satisfactory cure could have been effected.

Case IV.—Physician, aged about forty, suffering with intense neuralgic pain over the left malar and infraorbital region. This was the second attack of a like nature. There existed a rather profuse discharge of muco-pus from the left nostril. The condition followed an acute coryza, probably influenza. Examination showed the anterior end of the middle turbinated body swollen and thickened. It lay curled back against the external wall. A small amount of muco-pus was seen issuing from behind it. Cocainization reduced the swelling, and left a narrow slit between the middle turbinate and the external wall. The muco-pus was carefully wiped away, and the patient was allowed to sit several minutes with his head bowed forward and inclined toward the right side. On again examining the left nostril more abundant muco-pus was seen oozing from behind the middle turbinated body. Transillumination showed a distinct shadow on the left side. Experimental puncture with a straight needle through the upper posterior edge of the lower meatus proved easy of accomplishment.

Sterilized boric-acid solution injected through the needle brought back a return flow of turbid, ill-smelling fluid, containing clots of muco-pus.

The cavity was opened through the alveolar process after extraction of the first molar. The patient treated himself with sterilized boric-acid solution and hydrozone (?). When I saw him a month later the discharge had ceased. Six months later no recurrence existed.

Operative procedure was advised in this recent empyema, in order to relieve the acute facial neuralgia. Then, too, owing to the anatomical formation, it was impossible to pass a curved cannula into the natural opening.

Case V.—A physician, aged twenty-four, desired to be cured of a nasal catarrh, which had existed for many years. He especially wished relief because he had a recent hospital appointment, and must assist at surgical operations. There was a constant discharge from the nose, chiefly from the left side, which rendered necessary frequent use of the handkerchief, and prevented asepsis of the hands during operations. He soiled several handkerchiefs daily. He had suffered no pain. Was apparently in robust health. Nasal examination showed a small amount of muco-pus covering the middle and inferior turbinated bodies. This was thoroughly removed with pledgets of moistened cotton. The middle turbinated body was swollen, and the anterior end was dark and hypertrophied; cocaine only partially reduced the swelling, leaving no appreciable space between the turbinate and the external wall. After a few minutes muco-pus was again seen coming from behind the lower edge of the middle turbinate.

It was impossible to probe the natural opening. The exit for the pus was so blocked by the turbinate that its anterior end was snared off by Hajek's method. Two days later the patient stated that the amount and character of the discharge remained about the same.

Transillumination showed a much darker shadow of the affected side, especially well marked just below the infraorbital rim.

Experimental puncture and washing brought a return flow of thin pus, of very offensive odor, containing shreds of mucus. The first upper left bicuspid was defective, and was removed. An opening was then drilled through the alveolar process. Considerable difficulty was experienced, as a plate of bone, at least three quarters of an inch thick, lay between the bottom of the tooth socket and the antrum.

The cavity was then washed out with a sterilized boric-acid solution followed by diluted pyrozone. After the second washing no odor was observable. The discharge from the nostril almost entirely ceased; what remained probably came from the unhealed middle turbinate.

Three months later this patient was much improved, but probably a radical operation will be necessary before recovery, for the empyema has existed for several years.

Complete absence of subjective symptoms is a notable feature of this case, and is in strong contrast with the preceeding one.

These are a few typical examples of empyema of the antrum of Highmore. From them we gain some idea of the frequency of their occurrence.

They forcibly impress upon me the belief that the great majority of empyemas resulting from acute coryzas or attack of influenza persist only when favored by the anatomy adjacent to the natural openings.

In other words, where the middle turbinated body curves back sharply against the external wall, so that a slight swelling or hypertrophy to a greater or less degree occludes the natural opening, thereby preventing free discharge from the cavity involved, an empyema does not tend to spontaneous recovery.

THE SPECTACLE AND EYEGLASS HABIT.

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Wearing spectacles or eyeglasses out of doors is always a disfigurement, often an injury, seldom a necessity. It is a common thing for people with some trifling or passing trouble of the eyes, only needing rest, to be advised to wear glasses all the time. If this is done, the ciliary or focusing muscles may get weak from not having proper work, and spectacles become a necessary evil.

Those who can be benefited by wearing suitable glasses for reading and near work are many. Few, though, need to wear them out of doors or in public; indeed, more than half who do so see at a distance as well or better with the naked eyes than with the spectacles.

If a person's vision for distant objects is satisfactory to himself and seems good enough to keep him out of danger, there is no sense in wearing glasses on the street or in public. If the right glasses are worn for several hours a day while reading or about the house, the eyes will be rested so much that the useful exercise of out-of-door sight-seeing may be taken without the spectacles. As soon as the eyes feel tired wear them again until rested.

In order to stand the strain of a bright light for several hours at a time, as at the theatre, the eyes should be rested with the glasses for a few hours beforehand. Naturally, some eyes need much more rest than others. The nearer perfect the fit of the glasses, the longer they can be left off at a time. Wrong glasses may help more or less, but they do not entirely relieve the strain of the focusing muscles, so they have to be worn nearly all the time to get all of the little help that comes with such glasses.

Distant vision requires little work of the focusing muscles, and will not cause distress for hours if these muscles are perfectly rested beforehand. If glasses are really needed, reading and near work should hardly ever be undertaken without them, for strain of the focusing muscles from this cause often lasts for hours or even days.

Glasses are very disfiguring to women and girls. Most tolerate them because they are told that wearing them all the time is the only way to keep from having serious eye trouble. If glasses are all right they will seldom or never have to be worn in public.

If the eyes are nearly perfect in size and shape, there will be no need for spectacles, even for reading, until about the fiftieth year. It is surprising how few people have perfect eyes. All adult eyes, to be perfect, must be just exactly of a standard size and shape—as much so as minted dollars. Children's eyes are too small at first, but in time grow. If an eyeball is too small, too large, or not perfectly round, spectacles will have to be used as soon as the focusing mechanism—the ciliary muscle and the crystalline lens—fails to make the sight what it should be.

The easiest way to tell whether glasses are needed, or to find out if they are anything like right, is to hold the finest print about sixteen inches off and right in front of the eyes, with a good light falling on the print from behind. Keep both eyes open during the test, and cover first one eye and then the other with a card to see if the print looks exactly alike to each eye. If it does, and if print like this in the *New York Medical Journal* can be read for six or eight hours a day steadily, there is as yet nothing wrong enough to pay any attention to. After the fiftieth year this test will show the slightest imperfections. If one under thirty finds the print unlike, or is unable to read with comfort, something is badly wrong. The complicated tests all have their places, but this test is given to the general practitioner, and is about all that he needs to find out just what is wrong. A man may see the print alike with bad eyes or wrong glasses; he may read with comfort with bad eyes or wrong glasses; but he can not see the print alike and read with comfort unless the eyes are about right, or made so by glasses. The cheap glasses in the stores suit about half of the people. They do no harm, and can not be improved upon if the above test shows nothing wrong.

The methods of testing for glasses that are in general use must change, for they yield good results only in the simple cases. About half of the people have eye imperfections that are hard to find, and still harder to correctly estimate, and the present methods are powerless to give the needed relief. Many with complicated imperfections have their eyes tested every few months, and get no two pairs of glasses alike and no one pair right. Estimating an imperfection and fitting an eye is purely mechanical and mathematical, and there is just one glass that is a perfect fit, and this once obtained is good for life, as the changes necessary with advancing age are then easily made.

Most think testing the eyes is a simple matter. This is because so many have neither astigmatism nor unlike eyes, and are able to pick out good spectacles for themselves or be fitted by peddlers. Many are badly hurt by wrong glasses. For instance, in lots of cases people think they are seeing all right when they have been fitted, so they use only one eye and unconsciously suppress the retinal image of the other, which becomes ambylopic from lack of proper use. In others the glasses suit some older person, are too strong, and, all unknown, the eyes have been made five or ten years older than they really ought to be.

About one old person in four uses but one eye in reading. This is because of wrong glasses. The best oculists often spend hours in testing the eyes of the young, and then fail to get the right glasses. As for the eyes of the aged, they are usually gone over in a perfunctory and stereotyped way, and given a pair of magnifiers, and these suit only about half of them. The other half have astigmatism, together with unlike eyes. While eye imperfections may not cause as much pain to the aged as to the young, they interfere far more with the proper use of the eyes after middle age than before. The eyes of the young are hard enough to fit, but the eyes of the aged are even harder if there is the least astigmatism or difference in the size of the two eyes. Reading is the chief and about the only comfort that most old people get out of life, and no doubt early dotage often comes from not being able to keep the mind active by reading. The routine way of testing the eyes of the aged is a great evil, for most of them can read or see about as well as ever if they only get the right glasses. Many do this with peddlers' glasses.

In farsightedness the eyeball is too small or too short; in nearsightedness, too long or too large; and in astigmatism it is imperfectly rounded. Astigmatism or warped sight is hard to explain and seldom understood. The tough, transparent skin, the cornea, fits in the front of the eyeball like a round, saucer-shaped pane in a window or like a bulging crystal on a watch. If the cornea is perfect, it is shaped something like the big end of an egg. If it is imperfect, it is shaped more like the side of an egg or a warped saucer. This bad shape is astigmatism. About half of the people have enough astigmatism in one or both eyes to give trouble at some time of life.

Astigmatism causes more eye trouble and interferes more with reading than all other troubles put together. People who have every kind of mysterious eye trouble, when properly examined, are usually found to have astigmatism. It causes blurring of the print, pain in the head and eyes, nervousness, fretfulness, etc., and is most apt to give trouble when the focusing muscle gets weak from sickness, overwork, etc., or when the crystalline lens gets hard from age. Astigmatism is such a difficult imperfection to properly estimate that glasses have not as yet benefited astigmatic eyes anything like as much as they should have.

Imperfections, especially nearsightedness and astigmatism, are apt to be more pronounced in one eye than in the other, and, worse still, are usually so badly mixed up that a glass which fits one eye would injure the other, the eyes being so unlike. Many with unlike eyes, united with astigmatism, require a pair of spectacles that would fit nobody else.

A few have eyeballs so imperfect that they are deformed and the focusing mechanism is powerless to make the sight good even for distance. Such eyes require the thickest and heaviest glasses, and these have to be worn nearly all the time.

The medical profession, for the most part, has considered testing the eyes for glasses beneath its dignity, consequently this branch has always been largely in the hands of mediocres and quacks and the people have been the victims. Restoring and preserving the sight with glasses is one of the greatest and broadest as well as one of the most difficult branches of medicine. The glass is one of the greatest powers in the science of medicine, for is it not like a splint to a broken leg, like a bed for a tired back, like opium for pain, like an artificial limb to the maimed, or a crutch to the crippled? It acts like both sleep and exercise. It is a return of youth to aged eyes. It is often perfection and success in life instead of imperfection and failure. It may mean all that blindness or sight, all that the eye itself means. It is an "open sesame" to the mind, one which is too often never spoken. The fate of many, whether in youth to become a success or a dullard or in age a philosopher or a dotard, depends simply upon a pair of good glasses. Science by glasses has perpetuated the life of the mind a quarter of a century if not longer. If science and wisdom could do as much for the other fading powers of life as spectacles can for the eyes, there might be many frisky centenarians. Spectacles are often the means of a ripened wisdom, and should be its badge and symbol.

It is a pity that the vanity of dramatic display has led the great oculists to the supposed great generalships and responsibilities of operations on the eye, to the benefit of the few, instead of bestowing their ability on the useful, though humble and too unknown branch of fitting the eyes with spectacles, for all science is defied to show such painless perfections and marvelous benefits as come from this lowly art. As for operations on the eye, this science shows the work of great minds, for it has become almost a handicraft, so easily acquired that it no longer brings special eminence or distinction or exclusive fees.

Perfectly fitting glasses take every bit of the strain off the focusing muscles and balance and ease and give the eyes their proper exercise, even in moderate reading. On the surface this looks as if good glasses ought to be worn all the time, but this is far from right, for such glasses do so much of the work of the focusing muscles that these would become weak from not having proper work. An imperfect eye can not see well at any distance—especially for reading—without effort of the focusing muscle. Until late in life the focusing mechanism is so powerful that it can make the sight of a very imperfect eye, or from a badly fitting glass, about perfect. This is owing to the soft crystalline lens. Late in life the lens hardens, when even slight imperfections give trouble in reading; then perfectly fitting glasses are all the more necessary, else too strong glasses have to be used and the print magnified so much that only one eye is used, for the more print is magnified the closer and closer it must be held to the eyes. The aged can not hold print close like children and still read with both eyes at the same time. Old people who hold print close read with only one eye.

Out of two dozen pairs of twenty-five-cent spectacles kept in the stores about one half of the people can be suited if they only select the right pair. To fit the others, the complicated cases, some millions or billions of pairs of spectacles—no two alike—are necessary, so the number of different pairs of spectacles that they can wear with more or less help, but without complete relief, is very large, as glasses that come anything like fitting are some help; and, as there are so many pairs to select from, there are, of course, many and many that are makeshifts. People will wear and even praise glasses that by no means fit their eyes or enable them to read longer than an hour or so at a time.

A glass that magnifies a little bit, or a weak astigmatism glass, will give more or less relief to more than half who need spectacles. These glasses will by rights fit but few—in fact, their true use is very limited, for they suit only the simplest imperfections of the eyes—yet about half who wear glasses all the time have just some such compromise. Neither knowledge nor skill is required to prescribe such. Just such glasses and such fits as these have made, and for a long time will make, fat sinecures for traveling spectacle experts and quack opticians.

The old rule, "Wear glasses all the time," should be changed to "Wear glasses just as little as possible." Some wear spectacles for years, and then by lucky chance lose them, only to find that they get along better without. After wearing glasses only a few days many find the print looks worse to the naked eyes than before. This is a sure way to tell that glasses are wrong. Most people with troublesome imperfections of the eyes can not leave their glasses off even for an hour or so without discomfort. This is because they have wrong glasses. The right glasses can be put on and taken off at any time with ease and no more discomfort following than putting on and taking off a hat.

NEURASTHENIA AND SYPHILIS.

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WHILE neurasthenia is the subject of extended discussion, there has been comparatively little analysis of the conditions which result from its complication by other states. Very frequently an alternation occurs in neurasthenia between emotional exaltation and depression which produces in many a predisposition to complication by infectious disorders. Often a neurasthenic believes himself to be a victim of impotence, or possibly at the suggestion of friends that his condition is one of sexual starvation, and in consequence he indulges in sexual excess. As a result thereof, a venereal disease either is, or is believed to have been, contracted. This belief commonly results from the frequency with which herpes preputialis appears on the penis after illicit coitus by a morbidly conscientious neurasthenic and arises from the resemblance which that condition bears to the primary lesion of syphilis. The mental state, resulting from either the true infection or its mimic, is essentially a condition of syphilophobia. Syphilophobia is an exceedingly unpleasant symptom when it occurs alone, and doubly so when it occurs in a neurasthenic Many syphilographers are of opinion that this state is easily induced in patients who have, or believe they have, syphilis. For this reason they advise simple local treatment of the primary lesion, constitutional treatment not being employed until secondary symptoms occur. These secondary symptoms are absolutely necessary for a positive diagnosis of syphilis. In some instances syphilophobia has led to suicide as a consequence of hasty diagnosis of primary syphilis which the after-history of the case disproved.

From a psychical point of view this position of the syphilographers is well based. It is, however, but a negative method of psychotherapy. There is an introspective tendency engendered, whether the patient has been previously neurasthenic or not. This tendency is exaggerated if the patient has previously been neurasthenic. The problem involves the question how to apply medicinal agents without unduly giving the patient a therapeutic basis for his introspective syphilophobia. The ordinary alteratives will not answer, since one is required which will produce an emotional exaltation sufficient to offset the suspicional depression produced by the syphilophobia.

Gold was early regarded as an alterative having tendencies to overcome depression. "Most men," remarks Burton,[*] "say as much of gold. . . . Erastus still maintains the opposite part. (*Disput. in Paracelsum*, cap. 4, fol. 196.) He confesseth of gold 'that it makes the heart merry, but in no other sense but as it is in a miser's chest': *at mihi plaudo simul ac nummos contemplor in arca,* as he said in the Poet, it so revives the spirits, and is an excellent receipt against melancholy.

> "'For Gold in Physick is a cordiall,
> Therefore he loved Gold in speciall.'

"*Aurum potabile,* he discommends and inveighs against it, by reason of the corrosive waters which are used in it: Which argument our Dr. Guin urgeth against D. Antonius. Erastus concludes their Philosophicall stones and potable gold, &c., 'to be no better than poyson,' a meere imposture, a *non ens,* dig'd out of that broody hill belike this golden stone is, *ubi nascetur ridiculus mus.* Paracelsus and his Chymisticall followers, as so many Promethei, will fetch fire from heaven, will cure all manner of diseases with Minerals, accounting them the only Physick on the other side. Paracelsus calls Galen, Hippocrates, and all their adherents infants, idiots, sophisters, &c., *Apagesis istos qui vulcanias istas Metamorphoses sugillant, inscitæ soboles, supinæ pertinaciæ alumnos,* &c., not worthy the name of Physicians, for want of these remedies; and brags that by them he can make a man live 160 years or to the world's end with their *Alexipharmacums, Panaceas, Mummias, unguentum Armarium,* and such Magneticall cures, *Lampas vitæ et mortis, Balneum Dianæ, Balsamum, Electrum Magico-physicum, Amuleta Martialia,* &c. What will not he and his followers effect? He braggs moreover that he was *primus medicorum,* and did more famous cures thean all the Physicians in Europe besides, 'a drop of his preparations should go farther than a dram or ounce of theirs, those loathsome and fulsome filthy potions, Heterocliticall pills (so he calls them) horse medicines *ad quorum aspectum Cyclops Polyphemus exhorresceret.* And though some condemn their skill, and Magneticall cures as tending to Magicall superstition, witchery, charmes, &c., yet they admire, stiffly vindicate neverthelesse, and infinitely prefer them. But these are both in extreams, the middle sort approve of Minerals, though not in so high a degree, Lemnius, lib. 3, cap. 6, de occult. nat. mir., commends Gold inwardly and outwardly used, as in Rings, excellent good in medicines; & such mixtures as are made for melancholy men, saith Wecker, *antid. spec. lib.* 1, to whom Renodeus subscribes, *lib. 2, cap. 2, Ficinus, lib.* 2, cap. 19; Fernel, *meth. med., lib. 5, cap. 21, de Cardiacis;* Daniel Sennertus, *lib. 1, part 2, cap. 9;* Audernacus, Libavius, Quercetanus, Oswaldus Crollius, Euvonymus, Reubeus, and Matthiolus in the fourth book of his *Epistles,* Andreas à Blawen epist. ad Matthiolum, as commended, and formerly used by Avicenna, Arnoldus, and many others. Matthiolus in the same place approues of potable gold, *Mercury,* with many such Chymicall confections, and goes so far in approbation of them that he holds no man can be an excellent Physitian that hath not some skill in Chymisticall distillations; & that Chronick diseases can hardly be cured without mineral medicines: Look for Antimony among Purgers."

Under the influence of the alchemical notions gold enjoyed as high a reputation in the treatment of disease as any remedy would have when boomed by popular belief in mystic procedures. It finally fell into disrepute because of the "fake" gold cures sold under the name of "*aurum potabile*" by swindling alchemists. Gold, however, retained its place in legitimate therapy; but it was regarded as an alterative of less value than mercury and arsenic. Late in the seventies its use as a nerve stain in histological study attracted attention to its possible therapeutic action in neuroses. Since that time it has occupied a definite place in neurological therapeusis. Its combination with arsenic and the bromides has produced a composition which, with decided alterative and quieting effects, has a decidedly stimulating mental result. This composition (arsenauro) has a decidedly quick beneficial reaction when given to neurasthenics who have acquired syphilis or who (from the presence of *herpes preputialis*) believe they have acquired it. It is a potent agent in combating syphilophobia because of the emotional exaltation it produces. It should be given in five-minim doses, greatly diluted in water, thrice daily, the dose being gradually increased until slight sialorrhœa is produced. The fact that it does not contain mercury and does contain gold (which is popularly regarded as a nerve tonic) directs the patient's attention away from his annoying fear of the physician's diagnosis of syphilis.

Change of Address.—Dr. G. Betton Massey, to the Professional Building, No. 1831 Chestnut Street, Philadelphia.

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[*] *Anatomy of Melancholy*, part ii, sect. 4, memb. 1, subsect. 4.

TYPHOID FEVER IN AN INFANT EIGHTEEN MONTHS OLD;

RECOVERY.

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Typhoid fever in infants under two years of age is of comparatively rare occurrence, Holt having never seen a case. Northrup did not meet with a single case in two thousand autopsies at the New York Foundling Asylum. In epidemics, cases in infants under two years old have been observed. In the epidemic which occurred in Montclair, New Jersey, in 1894, of 115 cases, three were in children under two years; in Stamford, Connecticut, in 1895, of 406 cases, four were in children under two years.

Its atypical course and the absence of the common symptoms, together with continued fever of unknown origin, render the diagnosis difficult, but with the laboratory means now at hand, few cases if any should pass unrecognized. Unboiled drinking water given to sucklings is no doubt the direct carrier of the infection.

The mildness of the fever, the absence of the common fatal complications—perforation and hæmorrhage—and the low mortality render it a less dreaded disease than typhoid fever in adults. The case I herewith report is of more than usual interest for these reasons: 1. The age of the patient. 2. The duration and severity of the fever, which ranged between 103° and 105° F., and lasted twenty days. 3. The entire absence of the common symptoms of typhoid fever. 4. The extreme anæmia and aphasia as complications.

Unfortunately, I did not see the case until the tenth day, and no satisfactory history of the rash could be obtained.

M. M., a girl, aged eighteen months, of German parentage. She had been nursed by her mother until the illness began. Small quantities of unboiled water were given between the nursing periods.

Physical Examination.—Infant well nourished and developed; pale and anæmic; countenance dull; does not cry when approached; skin hot and dry; no eruption; slight retraction of the head; tongue coated; ten teeth; fauces clear; breath heavy and odorous; appetite poor; bowels constipated; temperature in the rectum, 103° F.; pulse, 150; respirations, 45; lungs clear; breathing quick; no râles; heart's action quick and weak; sounds clear; liver normal; spleen enlarged; abdomen tympanitic; no appreciable tenderness; carphology and subsultus tendinum in a modified form was present.

Blood Examination.—Red corpuscles, 1,500,000; white, 35,000; hæmoglobin, 30. Widal's reaction; no plasmodia malariæ.

Urine: quantity passed in twenty-four hours, ninety cubic centimetres; highly colored; of a strong odor; diazo reaction neutral; specific gravity, 1.032; a trace of albumin; no casts; uric acid and triple phosphates. Cultures from fæces showed Eberth's bacillus.

The treatment consisted in the use of the cold pack, and it was used whenever the temperature reached 102.5° F. or over; nursing was discontinued and Eskay's albuminized food substituted. The infant did not object to the bottle, I suppose on account of the extreme prostration. Cold lemonade made with sterilized water was given in the intervals between bottles. It was readily taken, and the refrigerant properties were of value in reducing the fever and relieving thirst; ninety cubic centimetres would reduce the temperature from half a degree to a degree. Olive-oil enemata were given for the constipation, which lasted throughout the disease; no antipyretics were given. The temperature, after lasting for twenty days, as before stated, dropped by crisis; the evening before it had been 103.5° F.

Convalescence was rapid and uninterrupted. Before the child's illness monosyllabic words had been uttered. During the last week of her illness and for three weeks after it none whatever were uttered. Hearing and sight were good, and walking was fairly well established.

At the present time, ten weeks after her recovery, the aphasia has entirely disappeared.

References.

Holt. *Diseases of Infancy and Childhood.*

Osler. *Principles and Practice of Medicine.*

Morse. *Boston Medical and Surgical Journal*, January 27, 1896.

1216 North Avenue, W.

Therapeutical Notes.

For Hæmorrhoids. — Dr. Boas (*Centralblatt für Therapie*, December, 1899; *Gazette hebdomadaire de médecine et de chirurgie*, March 11th) recommends for local use against pain and excoriation the following suppository:

℞	Chrysarobin	$1\frac{1}{5}$ grain;
	Iodoform	$\frac{30}{100}$ of a grain;
	Extract of belladonna ...	$\frac{15}{100}$ “ “
	Cacao butter	30 grains.

M.

For one suppository. Two or three may be used daily.

Or as an ointment the following:

℞	Chrysarobin	$1\frac{1}{5}$ grain;
	Iodoform	$\frac{45}{100}$ of a grain;
	Extract of belladonna ...	$\frac{15}{100}$ “ “
	Vaseline	225 grains.

M.

For Vomiting after Chloroform.—*Clinica moderna* for May 23d gives the following:

℞	Oxalate of cerium	$1\frac{4}{5}$ grain;
	Sulphate of codeine	$\frac{3}{20}$ of a grain;
	Calomel	$\frac{9}{10}$ “ “

M. To make one powder. Three or four powders to be given with intervals of half an hour between each.

For Ulcers.—The *Indépendance médicale* for June 27th gives the following:

℞	Bromol	15 grains;
	Vaseline	450 “

M.

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A NOTABLE OPERATION FOR THE SEPARATION OF CONJOINED TWINS.

A Brazilian surgeon, Dr. Chapot Prevost, performed some weeks ago an operation that is probably without a parallel in all history. It is described in a letter from Brazil published in the *Medical Record* for July 21st. The children, both girls, were eight years old, named respectively Maria and Rosalina. A photograph of them is reproduced by our contemporary, and it shows them to be well developed and apparently bright and happy. Xiphopagi are defined as twins joined together anteriorly from the navel to the xiphoid cartilage, and the photograph fully accords with this definition. Nearly a year before Dr. Prevost's operation another surgeon had essayed to separate these twins, but had desisted when he found that the livers of the two were continuous. In October of last year the children were admitted into St. Sebastian's Hospital in Rio de Janeiro, and from that time until the final operation they were the subjects of careful study by Dr. Prevost. By means of Röntgen pictures he satisfied himself that the two livers were united through almost their whole extent. Nothing daunted, he set to work to ascertain by experiments on dogs how the liver would bear extensive cutting and to settle upon the best means of controlling traumatic hæmorrhage from that organ. As a result he became confident of the practicability of the operation of separating little Maria and Rosalina.

The operation was performed on May 30th. Knowing that until the separation was complete the two children would have to lie on the same operating table, facing each other, the one on her right and the other on her left side, but that as soon as the separation was completed it would be almost a necessity to have them lying each on her own table, he had had an ingenious table constructed which consisted of two tables so joined together as to admit of instantaneous detachment. Not only the livers, but also the pleuræ, the pericardial sacs, and the mesenteries of the two children were found to be continuous. To cut through these several important structures, at the same time guarding against tremendous hæmorrhage and against the tendency of the intestines of the one child to slip into the peritoneal cavity of the other—this was the task upon which Dr. Prevost found that he had entered, and in the boldest and at the same time the most careful and conservative manner did he meet the exigencies that kept arising in this gigantic operation, one that, including the anæsthetization, lasted from 9.15 to 11.45 A. M.

Rosalina made an uninterrupted recovery; at least, she had no drawback up to June 7th, the date of the letter. Little Maria, however, died on the sixth day, of pleurisy and pericarditis. At the post-mortem examination, made by the police physicians at Dr. Prevost's request, the liver and the external wound were found completely healed. Such a finding shows that the fatal result was not such as must of necessity have occurred in any similar case, and the survival of the other child confirms this view. The operation will undoubtedly serve as an encouraging precedent, but its like should not be attempted by any but the most resourceful of surgeons.

PSYCHIC INSULT.

The relation of psychical to physical processes is a subject that has always been a source of interest, though, until recent years, comparatively little one of scientific experiment or even observation. The general belief in the effect of mind upon matter, even to the extent of causing death, has found expression in many widely repeated "authentic cases." There is the story of a naval officer who had made up his mind that he would be killed in his first engagement. His messmates, who derided his "premonition," vainly tried to chaff him out of his morbid belief. In the course of his first action one of them clapped him on the back, when he suddenly cried, "My God, I'm shot!" and fell dead. There is another well-known story of a criminal condemned to death by venesection upon whom the experiment was made, with a fatal result, of scratching his wrist while he was blindfolded and allowing warm water to fall upon the supposed wound and drip into a vessel below. Such instances might be multiplied many times, and the fact is that, while the multitude have placed implicit credence in them, the learned have smiled the pitying skeptical smile of superior knowledge. Indeed, the opposite point of view has been largely taken by the philosophers, while, of late, James and Lange and Sergi have promulgated doctrines differing but slightly and having this common factor, that the psychological processes of the emotions—*e. g.*, fear, love, hate, etc.—are the result and not the cause of those bodily changes which are commonly supposed to be only their expression. In relation to this view the recent Experiments on the Value of Vascular and Visceral Factors for the Genesis of Emotion, presented by Dr. C. S. Sherrington, F. R. S., to the Royal Society, are of importance, since by implication they support the views of those who, under the term "psychic insult," are directing attention anew, but from the scientific side, to the "power of mind over body," a power the belief in which, uncontrolled by such limitations as would be imposed by more accurate knowledge, is at the bottom of the ever-recurring theories of faith-healing and so forth. Dr. Sherrington has shown that, notwithstanding division of the spinal cord in dogs, sundering all connection of the thoracic, abdominal, and pelvic viscera, the skin, and motor organs with the brain, and of all blood-vessels with the bulbar vasomotor centre, save for certain comparatively scanty communications, the dogs still betrayed all their customary emotional conditions as unmistakably after as before the section of the cord.

Dr. Jay G. Roberts (*Western Medical Review*, July 16th), on the other hand, after referring to Pagenstecher's case of fatal psychic insult, reported in the *Philadelphia Medical Journal* for April 14th, and abstracted in this *Journal* for April 21st, insists strongly upon the great importance of the mental element in shock, and asserts that it has been too long considered an almost entirely physical phenomenon, dependent upon and proportional to the severity and extent of physical injury. The proportionately great frequency with which post-operative insanity has followed operations upon the genitalia of women, he says, suggests a close analogy between that condition and puerperal insanity. He considers that there is a vast number of cases of puerperal insanity in which sepsis may be ruled out entirely, as may also shock from hæmorrhage, extreme suffering, or albuminuria, and he supports himself with the dictum of Hirst, who says: "In my experience insanity in the childbearing woman has almost always resulted from some profound emotion." Now, it can not be denied that a large proportion of childbirths present one of many possible causes for such profound emotion, such, for instance, as the fear of suffering or death, or of danger to the child, shame and remorse in illegitimate pregnancy, grief over desertion, or the death of the infant, etc. Hysteria, too, is a condition in which psychic insult, or emotional shock, may well play a very prominent part. Traumatic neuroses, in which the ascertainable lesion seems an altogether inadequate cause for the effect produced, are explicable on this view, and are often, doubtless, cases in which a previously latent neurotic predisposition has been called into activity by psychic insult, as it probably would have been from any purely emotional disturbance of sufficient magnitude.

A rational consideration of this subject may enable us to learn a lesson even from the faith-healer. Dr. Roberts points out how few cases there are in which any effort is made to reassure the patient and overcome erroneous mental impressions. Too many who come to the physician in a state of extreme mental agitation and distress are laughed at, given a prescription, and sent away none the less fearful and with the impression that not enough attention has been given to their cases to enable the physician to know whether they were serious or not.

COCAINIZATION OF THE SPINAL CORD IN OBSTETRICS.

It may probably be said that anæsthetization of the lower parts of the body by means of cocaine injections into the lumbar portion of the vertebral canal has passed the strictly experimental stage; nevertheless, its precise advantages and disadvantages have yet to be established. It is true that Tuffier (*Semaine médicale*, May 10th) has reported more than sixty cases of its employment in various operations on the lower limbs, the rectum, the perinæum, and the genito-urinary organs, but, although his results have been satisfactory and although he thinks the after-effects in the form of headache, nausea, vertigo, etc., are not serious objections to its use, it seems to us that far greater experience is necessary before we can recognize the practice as one to be regularly resorted to.

Perhaps it is in obstetrical work that it promises to be most frequently of distinct advantage by enabling the physician to dispense with an assistant. This is a circumstance worthy of serious consideration, especially in view of the frequent impossibility of obtaining promptly an assistant who is competent to take charge of general anæsthetization. In the *Centralblatt für Gynäkologie* for July 14th Dr. Oskar Kreis reports upon its use in six cases of labor, in two of which the forceps was employed. In all these cases there was complete analgesia of the parts below the ribs, lasting for a sufficient length of time to admit of the painless performance of any obstetrical operation or, ordinarily, the completion of spontaneous delivery. But it must be borne in mind that it is analgesia only, not true anæsthesia, that is produced by this method of employing cocaine; the analgetic parts retain their sense of touch and the patient still has control of all her muscles. Feeling no pain from the pressure and distention caused by the advancing fœtal head, the patient does not "bear down"; hence whatever aid may be rendered by voluntary muscular action is lost. That, however, is the case when any ordinary anæsthetic is employed, so that medullary cocainization is on a par with other pain-saving procedures so far as "bearing down" is concerned, and really it is commonly held, we think, that voluntary muscular action on the part of the patient counts for very little in the process of parturition.

Kreis points out that with excitable women, those who, although feeling no pain, can not restrain their outcries or lie still, but give way to apprehension at each movement of the hand or the forceps, a general anæsthetic is to be preferred. It is quite probable, we think, that the only great advantage of cocaine analgesia in obstetrics will be found to consist in its enabling the physician to dispense with an anæsthetist.

A FOOLISH CRITICISM.

The *New York Times* for July 22d contains a paragraph headed British Surgeons Criticised, in which an "American scout" who has served with the British army in South Africa expresses himself as "disgusted with the medical treatment in South Africa." The burden of his complaint seems to be that he was passed on from hospital to hospital. Such a process is inevitable at the front, where the primary duty of the medical staff is to contribute to the military exigencies of the campaign by unburdening the general officer commanding of all cases that would tend to interfere with the mobility and efficiency of his forces, and the interests of the individual patient are always secondary to that consideration. It is the failure to grasp this all-important point of military medical duty which makes excellent civilian practitioners usually failures as military medical officers. The points of view of the two classes are necessarily diametrically opposite. Of course it is conceivable that even in the performance of their secondary duties the British medical officers may have fallen short; but the general tenor of the complaints as a whole does not give us much confidence in the critic's discrimination, for he says that "the surgeons down there range from eighteen to twenty-one years of age." Now, since no English medical man can legally obtain a diploma until he is twenty-one years of age, and since after he has obtained his diploma he must, in order to enter the army medical service by competitive examination, pass further examinations for which he usually has to read up; and, further, since he has, after passing into the service, to go through a special six months' course at the Military Medical School at Netley before being appointed to duty, it is impossible that any British surgeon under twenty-one should have been in South Africa, and it is highly improbable that any one there could be under at least twenty-three years of age. This evidence of inaccuracy, together with the fact that he compares the conditions of a movable field hospital at the front with those of stationary hospitals in England, discounts altogether any importance that might otherwise be attached to his views of the actual treatment he received.

THE PROPER CHARACTER OF A UNIVERSITY TRAINING.

Much mystery appears to attach in the minds of many on this side of the Atlantic to the diversity of titles which, in the British Isles, indicate that right to practise medicine represented universally in the United States by the one qualification of doctor of medicine. The English contention is that a doctorate is a degree that can properly be conferred only by a university and not by any technical college. Those holding licenses or other qualifications to practise medicine granted by various colleges of physicians and surgeons who rebel against the superior status claimed for the university degree of M. D. do so on the ground that in most universities no greater technical acquirements are needed to obtain that degree than in most of the technical colleges; while the highest of such college diplomas, it is asserted, are often indicative of far deeper technical knowledge than many university degrees. Professor Clifford Allbutt, of Cambridge University, England, as we learn from the *British Medical Journal* for June 30th, has recently pointed out that students of medicine of that university are prone to leave it too soon in order to go to medical centres affording a larger field for clinical instruction. While conceding that it is well that they should complete their studies where wider fields of clinical instruction are open to them, he points out that a university degree should evidence something more than practical skill; it should also signify the grasp of principles. Without special reference to the conditions as existing in England, it certainly does seem to us that a university degree in any faculty should imply a more liberal education, whether in the *literæ humaniores* or, as Professor Allbutt suggests for a medical degree, "in the principles of the departments of science ancillary to the art of medicine," than is necessarily implied in a thorough but merely technical training of an applied character. The depth of knowledge acquired in a technical college may be admirable, but it is the special function of a true university rather to impart breadth, to the possessors of which depth will inevitably come with experience. Concerning the thesis as an essential part of the requirements for a doctorate, so belittled by many as being only a mediæval survival, Professor Allbutt contends that, while it can not be expected that the theses of many candidates will leave marks on the history of medicine or of the associated sciences, every candidate ought to be expected to give something personal and independent—something of his own. We fully indorse this view.

KALAGUA IN THE TREATMENT OF TUBERCULOUS DISEASE.

In the *New York Herald* for July 19th there appeared a dispatch from Paris in which Dr. J. Edward Stubbert, the physician in charge of the Loomis Sanitarium, in Liberty, New York, was credited with stating that he had seen a number of apparently hopeless cases of tuberculosis cured by the use of kalagua. Dr. Stubbert writes to us that this statement is untrue. "On the contrary," he adds, "before the Medical Society of the County of New York, some months ago, I distinctly stated that kalagua was not a specific, but could be ranked simply as an antiseptic in the same class with creosote and ichthyol." In our opinion, it is little short of criminal to raise false hopes in advanced consumptives by publishing such erroneous statements.

THE AMERICAN SOCIETY FOR THE PREVENTION OF PREMATURE BURIAL.

There are a few people who are distressed lest burial alive may be their fate. Those of them who live in this part of the world will perhaps be thankful that an organization bearing the name that forms the heading of this paragraph has been formed, but it remains to be seen whether or not people in general will approve of the legislation which the society is said to be promoting, making it incumbent on physicians to apply certain specified tests of death in all instances before giving a certificate.

THE LOUISIANA QUARANTINE AGAINST COSTA RICA.

The action of the Louisiana sanitary authorities in declaring a quarantine of ships arriving from Costa Rica because of the alleged occurrence of yellow fever at Port Limon seems to have been a little hasty. According to a dispatch to the *Sun*, the Alabama officials have not accepted the diagnosis, and Alabama is getting the benefit of trade that, if undisturbed, would be going to Louisiana.

A NEW SURGICAL JOURNAL.

We have received the first number, dated July, 1900, of the *Journal of Surgical Technology*, to be published monthly. It is a large octavo of fifty-two pages of reading matter. The first issue is largely devoted to new instruments.

ITEMS.

Infectious Diseases in New York.—We are indebted to the Sanitary Bureau of the Health Department for the following statement of cases and deaths reported for the two weeks ending July 21, 1900:

DISEASES.	Week ending July 14.		Week ending July 21.	
	Cases.	Deaths.	Cases.	Deaths.
Typhoid fever	32	9	26	11
Scarlet fever	74	9	60	5
Cerebro-spinal meningitis	0	10	0	9
Measles	188	18	120	23
Diphtheria	214	33	154	29
Laryngeal diphtheria (croup)	1	2	3	2
Tuberculosis	214	137	236	181
Chicken-pox	4	0	5	0
Small-pox	0	0	0	0

Notice to Former Medical Officers of the Confederate Army and Navy.—All surgeons, assistant surgeons, acting assistant surgeons, or contract surgeons, and hospital stewards who served in the army or navy of the late Confederate States will please send their post-office address to Deering J. Roberts, M. D., secretary of the Surgeons' Association, C. S. A., Nashville, Tennessee.

Marine-Hospital Service Health Reports.—The following cases of small-pox, yellow fever, cholera, and plague were reported to the surgeon-general during the week ending July 20, 1900:

Small-pox—United States.

Chicago, Ill.	July 7–14	2 cases.	
Wichita, Kan	July 7–14	2 "	
New Orleans, La.	July 7–14	11 "	5 deaths.
Shreveport, La.	July 7–14	3 "	
Baltimore, Md.	July 7–14	1 case.	
Fall River, Mass.	July 7–14	1 "	
Omaha, Neb.	July 7–14	2 cases.	
Manchester, N. H.	July 7–14	1 case.	
Cleveland, Ohio	July 7–14	29 cases.	
Philadelphia, Pa.	June 8–16	1 case.	
Greenville, S. C	July 7–14	1 "	
Salt Lake City, Utah	July 7–14	2 cases.	
Tacoma, Wash	July 1–7	1 case.	

Small-pox—Foreign.

Bahia, Brazil	June 2–9	2 cases.	
Liverpool, England	June 23–30	5 "	
London, England	June 23–30	16 "	
Lyons, France	June 16–23		1 death.
Paris, France	June 23–30		4 deaths.
Roubaix, France	May 1–31		1 death.
Athens, Greece	June 23–30	4 "	2 deaths.
Bombay, India	June 5–12		12 "
Genoa, Italy	June 8–16	3 "	
Vera Cruz, Mexico	July 1–7		9 "
Glasgow, Scotland	June 22-July 6	170 "	3 "
Geneva, Switzerland	June 8–16	1 case.	

Yellow Fever—Foreign.

Gorec Dakar, Africa	May 30–June 16	3 cases,	2 deaths.
Barranquilla, Colombia	June 23–30	9 "	6 "
Cartagena, Colombia	June 22–29	11 "	9 "
Havana, Cuba	June 27–July 4		5 "
Santa Clara, Cuba	June 26–July 7	7 "	
Cordoba, Mexico	July 1–8	Reported.	
Progreso, Mexico	June 23–July 8	3 cases,	2 "

Cholera.

Bombay, India	June 5–12		72 deaths.

Plague—Foreign.

Aden, Arabia	June 8–16	3 cases,	3 deaths.
Sydney, Australia	June 2–16	14 "	6 "
Bombay, India	June 5–12		117 "
Osaka, Japan	June 15–19	1 case.	
Shidzuoka, Japan	June 15–19	1 "	

The Truth about the "Plague of Women" in South Africa and Elsewhere.—Mr. Treves raised such a storm of protest about his ears for speaking at a certain public banquet of "the two plagues in South Africa, the plague of flies and the plague of women," that the following extract from an army nurse's letter from South Africa, published in the *Indian Lancet* for June 16th, may be of service in putting Mr. Treves's remarks in their proper light:

"The 'lady amateur' crops up everywhere when military excitement is going on. Lord Kitchener himself took most stringent measures to keep her out of the Soudan; but she has succeeded beyond all precedent in this South African campaign. The 'society ladies' who shipped as nurses—many of them thus escaped paying their own passages—all wear silk gowns and the flimsiest caps and aprons, and looked like the 'nurses' of fancy fairs. If amateurs came as 'additional' nurses they could play around brow-smoothing, and not do much harm; but in many instances the war office authorizes only a certain number of nurses in hospitals and on transports. When society women, with no technical training, take these posts they fill posts which ought to be filled by certificated nurses. Real nurses, as a consequence, are too few in number, and terribly overworked by doing their own and the amateurs' duties. No end of trouble has been caused by these masquerade nurses to doctors, nurses, and poor, sick, wounded Tommies. They get in everybody's way, and have no intention of working. Their idea is to take posts of authority and 'boss' the trained nurses who have borne the heat and burden of many years in hospital. We don't grudge them going round the wards in fancy dress, distributing flowers, and petting Tommy Atkins. They can do this picturesquely enough. But interference with the nursing of the sick soldier is too serious a matter. Many of these amateurs were actually sent to the front. 'Somebody' in authority had the courage to send several of them back to the headquarters responsible for their appointment. Social influence had no right to count when it comes to war nursing. It would astonish English people did they know how many of these 'nurses' without one day's hospital training in their lives, are trying their 'prentice hands on Tommy sick. And if ever patients called for good nursing it is these poor fellows from the front—with terribly shattered wounds, enteric, and dysentery. I notice that amateur surgeons and physicians have not been appointed. It would never occur to the authorities to select a surgical staff from untrained society men. A thrill of indignation would go through Great Britain were it announced that the Earl of —— had been put in charge of the operating theatre of a base hospital. I can not see why equal indignation should not be aroused by the fact of putting absolutely ignorant, untrained society folk in charge of typhoids and gunshot wounds. Sensible, practical colonials think the one step just about as bad as the other. Meanwhile hundreds of South African highly trained nurses are out of employment owing to the war. Nurses from Kimberley and Johannesburg and Capetown sit with idle hands, many almost destitute, while the amateur nurses take salaried positions. Some of them give their services; others have government posts and receive government pay. Very often they spend it in eau de cologne and cushions for the patients; but that does not make it easier for the trained certificated colonial nurse, who has 'got no work to do.' There are many ways in which the leisure society woman may help the sick soldier; but the sooner she realizes that her province does not lie in the wards of a military hospital the better."

Albuminuria and Pregnancy.—M. Fabre (*Lyon médical,* June 26th and July 1st) thus sums his conclusions with reference to the relation between albuminuria in the pregnant woman and death of the fœtus: 1. There are cases of habitual death of the fœtus due to a disease of the ovum accompanied by albuminuria, the maternal renal parenchyma remaining intact. 2. The habitual treatment of albuminuria does not prevent the death of the child whose nutrition is modified by primary placental lesions. 3. Artificial premature delivery is indicated when albuminuria appears as soon as the child is viable.

Army Intelligence.—*Official List of Changes in the Stations and Duties of Officers serving in the Medical Department, United States Army, from July 14 to July 21, 1900:*

APPLE, W. EDSON, Acting Assistant Surgeon, United States Army, will proceed to West Point, New York, to accompany Company E, Battalion of Engineers, to San Francisco, and then return to his proper station.

DARNALL, CARL R., First Lieutenant and Assistant Surgeon, United States Army, will report to the commanding officers of the hospital ship *Relief* for duty.

KNEEDLER, WILLIAM L., Captain and Assistant Surgeon, United States Army, will report to the chief surgeon of the Division for duty as attending surgeon to the board of commissioners to the Philippine Islands, and such other professional duty as may be required of him.

POTTER, SAMUEL O. L., Major and Surgeon, United States Volunteers, will proceed to the Presidio of San Francisco for temporary duty.

BORDEN, WILLIAM C., Captain and Assistant Surgeon, United States Army, is granted leave of absence for one month, to take effect about July 25, 1900.

Naval Intelligence.—*Official List of Changes in the Medical Corps of the United States Navy for the Week ending July 21, 1900:*

BABIN, H. J., Medical Director. Detached from duty as president of the medical board of examiners, Naval Laboratory, Brooklyn, and ordered home to await orders.

FISKE, C. N., Assistant Surgeon. Detached from the Navy Yard, Boston, and ordered to duty with marines at San Francisco, and then to duty at the Naval Hospital, Mare Island, California.

FITZSIMONS, P., Medical Director. Detached from the naval examining board, Annapolis, Maryland, and ordered to duty in charge of the Naval Hospital, Newport, Rhode Island.

HENEBERGER, L. G., Surgeon. Detached from the Naval Hospital, Newport, Rhode Island, and ordered to duty as a member of the board of medical examiners, Naval Laboratory, Brooklyn.

MCCORMICK, A. M. D., Passed Assistant Surgeon. Detached from the *Chicago* and ordered to the *Montgomery.*

PAYNE, J. H., Assistant Surgeon. Detached from the Naval Hospital, Mare Island, California, and ordered to the Asiatic Station with the Fifth Battalion of Marines.

WHITING, J. R., Assistant Surgeon. Detached from the *Montgomery* and ordered to the *Chicago.*

Births, Marriages, and Deaths.

Married.

RICH—CHASE.—In Dedham, Massachusetts, on Thursday, July 12th, Dr. Edwin W. Rich, of Cambridge, Massachusetts, and Miss Ellen A. Chase.

Died.

DRAPER.—In Wolcott, New York, on Sunday, July 15th, Dr. E. H. Draper.

LEWIS.—In Buffalo, on Tuesday, July 24th, Dr. George W. Lewis.

PEABODY.—In Taylorville, Illinois, on Saturday, July 21st, Dr. Elias S. Peabody, in the eighty-seventh year of his age.

SHEA.—In New York, on Tuesday, July 24th, Dr. D. L. Shea, in the thirty-fifth year of his age.

Pith of Current Literature.

The Journal of the American Medical Association, July 21, 1900.

Obstetrics and Gynæcology. Address by Dr. W. E. B. Davis at the Fifty-first Annual Meeting of the American Medical Association.

A System of Personal Biological Examinations the Condition of Adequate Medical and Scientific Conduct of Life. By Dr. George M. Gould.

Laryngology, and its Relations to General Medicine. By Dr. J. Solis-Cohen.

Human Temperature in Disease. By Dr. Norman Bridge.

Surgery of the Tear Passages. By Dr. J. G. Huizinga.

The Differentiation of Chorea and the Disorders Simulating it. By Dr. Augustus A. Eshner.

Recent Progress in the Roentgen-ray Methods of Diagnosis. By Dr. Charles Lester Leonard.—While this new method of physical diagnosis is but one line in which surgical diagnosis is progressing; while physiology, bacteriology, pathology, and chemistry are all aiding; yet it would be hard to overestimate its value. Aside from its importance to the study of anatomy, the diagnosis of fractures, and the correction of deformities due to non-union, and as an aid in orthopædic surgery, it has been found of great service in the demonstration of aneurysms, the localization of renal calculi, and in three cases in the author's experience a hydronephrotic condition was shown. While the fluoroscope is valuable, it has its limitations, and deductions from its use have a purely personal value, as its image can not be recorded. Much is to be hoped for in the future developments and refinements of x-ray diagnosis.

Acute Tonsillar Diseases and their Sequelæ. By Dr. Joseph H. Abraham.—The conclusions to be derived from a study of these affections are: 1. All cases of acute tonsillar disease should be considered more than trivial affections. 2. Acute lacunar amygdalitis is an infectious disease. 3. Isolation should be practised in all cases of acute lacunar amygdalitis. 4. Recurring attacks of acute amygdalitis are an indication for the partial or complete removal of the tonsils. 5. A careful systemic examination and treatment should be applied during and after an attack of acute amygdalitis.

Sarcoma of the Stomach. By Dr. George Dock.

Value of the Angeiotribe in Vaginal Cœliotomy. By Dr. J. H. Carstens.—The author mentions a few cases to lay stress upon the perfect safety of the instrument; but he believes, however, that its greatest use has been in the removal of small ovarian tumors, of diseased ovaries in the *cul-de-sac,* and of pus tubes between the uterus and rectum. As to the instrument, he believes that of Thumin, of Berlin, to be the best, with a lever instead of a wheel.

Medical Record, July 21, 1900.

The Evidences of Prostatic Atrophy after Castration. By Dr. Edward L. Keyes, Jr.—Experiments relating to the normal prostate do not of necessity apply to the enlarged prostate, and are no direct pathological evidence that castration has ever caused atrophy of the hypertrophied prostate, while there *is* direct pathological evidence that in a few cases castration has failed to cause atrophy of the hypertrophied prostate. The author believes that most of the "cured" or "improved" cases have been labeled so soon after operation that many of them are doubtless instances of local depletion, and clinical evidence of this is afforded by lapses occurring months after the operation. Of the permanent cures, some may be instances of permanent advantage derived from reduced congestion. At all events, the clinical evidence as to the actual atrophy of the prostate after castration lacks as yet its scientific confirmation, and has failed thus far to prove its title to the surgeon's credence.

Neglected Clinical Opportunities in American Medical Centres. By Dr. S. A. Knopf.—The point the writer lays stress upon is that in New York we have 1,500 medical students, and of this number only 158 can secure places in general hospitals, although statistics show that the daily average number of beds occupied is 4,173. He would like to see each visiting surgeon, physician, and obstetrician appointed as a clinical teacher independent of college affiliation, and a record of work and attendance kept by this clinical teacher should be transmitted periodically to the college to which the student may belong. These reports should be counted in the annual and final examinations of the student. A suppression of some of the didactic lectures to this end would not be mourned.

Does Cross-eye Affect the General Health? By Dr. Ambrose L. Ranney.

Report of a Case of Porro-Cæsarean Operation. By Dr. William J. Gillette.

The Medical News, July 21, 1900.

Appendicitis and Typhoid Fever. By Dr. H. A. Hare.

The Physiological Effects of Preparations of the Ductless Glands. By Dr. R. H. Cunningham.

Iodide of Iron in the Treatment of Certain Forms of Infective Arthritis. By Dr. J. C. Wilson.—The author gives some cases which he considers not only to illustrate the curative influences of the syrup of iodide of iron, but which also place the results of treatment by this method in striking contrast with the failure of ordinary antirrheumatic remedies, such as the alkalies, salicylates, salophen, and potassium iodide.

Molds in the Stomach. By Dr. J. H. Kellogg.

A Simplified Apparatus without Valves for the Administration of Nitrous Oxide alone or in Combination with Ether. By Dr. S. Ormond Goldan.

The Continued Use of the Antiseptic and Eliminative Treatment of Typhoid Fever without any Deaths. By Dr. T. Virgil Hubbard.

Brief Notes on Rheumatic Joints treated by Hot Air. By Dr. Homer Gibney.

Boston Medical and Surgical Journal, July 19, 1900.

Milk; its Production, its Care, its Use. By Dr. T. M. Rotch.—The important points are that milk should come from healthy cows in the most cleanly and antiseptic ways known; should be cared for in the same manner, and should be delivered quickly. To do this requires expense, and the people should be taught the folly of using milk at four and five cents a quart.

General Remarks on the Pathology and Symptomatology of Acute Pelvic Suppurative Processes in the

Female, and their Treatment by Posterior Colpotomy. By Dr. Charles Greene Cumston.

Parturition complicated with Suppurating Fibroids. By Dr. E. H. Stevens.

The Philadelphia Medical Journal, July 21, 1900.

A Bacteriological Résumé of the San Francisco Plague. By Dr. Ernest S. Pillsbury.

A Case of Primary Adenocarcinoma of the Gall Bladder, with Secondaries in Both Adrenals, Melanosis of the Skin, Vitiligo, and Hypertrophy of the Pancreas. (Concluded.) By Dr. Aldred Scott Warthin.

Three Cases of Tuberculosis of the Skin due to Inoculation with the Bovine Tubercle Bacillus. By Dr. Mazyck P. Ravenel.

A System of Personal Biological Examinations the Condition of Adequate Medical and Scientific Conduct of Life. By Dr. George M. Gould.

Are Consanguineous Marriages Injurious to the Race? By Lawrence Irwell, M. A., B. C. L.

Peritonitis in the Fœtus. By Dr. J. A. Porter.

The Lancet, July 14, 1900.

The Importance of Post-graduate Study. By Dr. W. Osler.—(See abstract of the *British Medical Journal* for July 14, 1900, in this number of the *Journal.*)

The Commoner Neuroses of Childhood, their Pathology and Treatment. By Dr. O. J. Kauffmann.—The second of the Ingleby Lectures on this subject. The writer considers the ætiology and treatment of migraine and epilepsy, and believes that a great proportion of the cases met with are the result of chronic toxæmia arising from the alimentary tract. This same autointoxication is the true factor in several other conditions which are universally recognized as predisposing causes of epilepsy—as, *e. g.*, intestinal worms and rickets.

The gastro-intestinal disorders which lead to toxæmia are excessive amount of food, unsuitable food, catarrhal condition of the stomach or of the small intestine, and constipation. As cathartics in these cases, the saline purgatives are invaluable; every effort must be made to bring about regular and sufficient defæcation. In chorea the best results are obtained by administering Fowler's solution of arsenic in large doses (fifteen grains) three times a day. Attacks of migraine are often aborted by the administration of a smart emetic. In tetany and epilepsy the mixed bromides afford the most service.

The Degeneration of the Neurone. By Dr. F. W. Mott.—The fourth of the Croonian Lectures upon this subject.

On the Confusion of Two Different Diseases under the Name of Rubella (Rose Rash). By Dr. C. Dukes. —The writer holds that besides scarlet fever, measles, and rubella there exists a fourth disease which has hitherto been confounded with rubella. This "fourth disease," as the writer terms it, has the following charactcristics: 1. There are practically no premonitory symptoms. 2. Vomiting occurred in only one case of nineteen observed by the writer. 3. The rash is usually the first symptom to attract the attention of the patient. In nearly every case it is very full and quite characteristic of scarlet fever. 4. The fauces are red and swollen, but only slightly painful. 5. Desquamation may be limited to roughness of the skin, or it may be very extensive. It may last as long as in scarlet fever. 6. The tongue is furred throughout and cleans as all furred tongues do. It never peels on the fourth day as in scarlet fever. 7. The lymphatic glands universally are enlarged, hard, and tender. 8. The average temperature is 101° F. It usually falls to normal by the third or fourth day. 9. The pulse rarely goes above 100. 10. Albuminuria does not occur. 11. The incubation varies from nine to twenty-one days. 12. The duration of infectiveness lasts from ten to fourteen days. 13. Scarlet fever had not previously occurred in any of the nineteen cases. 14. Eight of the nineteen had already suffered from rose rash.

The writer's views are based on the study of three epidemics of this disease in schools. In two of them the "fourth disease" occurred alone, in the third there was a concurrent epidemic of scarlet fever. He holds that this "fourth disease" is a definite and distinct affection for the following reasons: 1. Although its resemblance to scarlet fever is so close, it can not possess any affinity with that disease inasmuch as both diseases occurred concurrently in the same epidemic. 2. Some of the sufferers had both diseases in the same epidemic. 3. One patient had scarlet fever followed by the "fourth disease." 4. Several had the "fourth disease" followed by scarlet fever. 5. Although the "fourth disease" has been confused with rubella, this conclusion is wrong, for nearly one half the cases in one epidemic had had rubella within a year or two.

A Note on the Results Obtained by the Antityphoid Inoculations in the Beleaguered Garrison in Ladysmith. By Dr. A. E. Wright.—Out of 10,529 individuals in Ladysmith who did not receive antityphoid inoculations, 1,489 contracted typhoid fever (1 in 7.07). Of these, 329 died, giving a total death rate of 1 in 32, and a case fatality of 1 in 4.52. Of 1,705 who received the antityphoid inoculations, 35 contracted typhoid fever (1 in 48.7). Of these, 8 died, giving a total death rate of 1 in 213 and a case fatality of 1 in 4.4.

So that the results appear to be distinctly encouraging, inasmuch as they show that the proportion, on the one hand, of attacks, and on the other hand of deaths, from typhoid fever was seven times smaller in the inoculated than in the uninoculated.

Illustrations of Vasectomy or Obliteration of the Seminal Ducts Relative to Hypertrophy of the Prostate and Bladder Atony. By Reginald Harrison. — The writer describes the class of cases upon which he performs vasectomy, gives illustrative cases, and states that he can hardly recall an instance of vasectomy or torsion of the vas for hypertrophy of the prostate, where good has not followed, though it may not at once be appreciated by the patient. As regards castration, it is incontestable that most serious results follow total removal of both testes—reason is endangered if not life.

On Immunity against Proteids. By W. Myers.—This article deals with the results of experiments undertaken with a view to ascertaining what changes, if any, are to be observed in the blood serum when proteids of various classes are introduced into the body in steadily increasing amounts.

Chronic Empyema of the Frontal Sinus with Notes on the Treatment of Fourteen Cases. By Dr. H. Tilley.—The symptoms of chronic frontal sinus empyema are (1) a purulent, non-fœtid nasal discharge; (2) frontal or supraorbital headache; and (3) more or less well-marked nasal obstruction caused by the growth of the polypi or other chronic inflammatory products within the nasal cavity. The condition follows attacks of acute suppuration which are not uncommonly of influenzal origin or due to acute rhinitis. In many cases the highest sinus is affected by septic infection from one of the other accessory cavities, such as the antrum or ethmoidal cells. The treatment resolves itself into one of two measures: (1) intranasal irrigation of the sinus and (2) external radical operation. Intranasal irrigation rarely succeeds in effecting a permanent cure, though improvement is frequent. The external radical operation involves removal of more or less of the anterior bony wall of the sinus, of its diseased contents, and the provision of free drainage into the nose. All the details of the operation are given. The writer reports fourteen cases of this affection, one of which proved fatal. Death was due to imperfect drainage into the nose and tight stitching up of the wound immediately after operation. Of the remaining thirteen cases, nine were cured by operation, and the other four greatly relieved.

The British Medical Journal, July 14, 1900.

The Importance of Post-graduate Study. By Dr. W. Osler.—"There are two great types of practitioners—the routinist and the rationalist. Into the clutches of the demon routine the majority of us ultimately come." The writer goes on to say that courses of post-graduate study furnish the best means of escape from the ruts of routine, and calls attention to the excellent facilities for post-graduate study afforded in New York, Philadelphia, Chicago, and elsewhere in this country. He closes by stating that "the lines of intellectual progress are veering strongly to the West, and I predict that in the twentieth century the young English physicians will find their keenest inspiration in the land of the setting sun."

A Case of Acute and Chronic Torsion of the Ovarian Pedicle in the Same Subject. By A. Doran.—The writer reports the case of a woman, aged sixty, who was operated upon for ovarian cysts. Upon opening the abdomen, two cystic tumors, originating from the right and left ovary respectively, were found. The pedicle of the smaller tumor (that from the left ovary) was twisted two turns and atrophied. The pedicle of the larger tumor (that from the right ovary) had evidently been recently twisted, for there were no adhesions and the cystic tumor was livid. The operation was successful and convalescence uneventful.

Two Cases of Concealed Accidental Hæmorrhage. By Dr. A. E. Larking.—The writer reports two cases of concealed accidental hæmorrhage during pregnancy. In the first case, that of a woman seven months and a half pregnant, the hæmorrhage occurred suddenly when the patient was sitting still in a chair. She fainted, and when seen was in a condition of collapse. The dead child was delivered by forceps, and the placenta came away with ease, two chamberfuls of blood clot following it. The uterus contracted well and the woman made a slow recovery. In the second case, which took place at the end of pregnancy, the delivery of the dead child with forceps was followed by half a chamberful of blood clot. The woman did not rally and death took place during a convulsion some hours later. In neither case was there any hæmorrhage from the vagina before delivery of the child.

Case of Extra-uterine Gestation Ruptured at Mid-term Treated by Abdominal Section. By Dr. J. B. Hellier.—The writer reports a case of extra-uterine pregnancy in a woman aged twenty-two, in which rupture took place at the end of three months. Upon opening the abdomen a dead fœtus, eight inches long, was found free in the abdominal cavity just above the pubes. There was a large blood clot—about a quart—lying in the pelvis and hypogastrium. The placenta and sac were attached to the right side of the uterus by a fairly narrow pedicle. This was ligatured and divided, the blood clot removed, and the abdominal cavity sponged dry. Venous transfusion of four pints of saline solution was performed. The after-course of the case was most satisfactory.

The Nature and Treatment of Puerperal Infection. By T. E. Mitchell.—In a well-marked case of puerperal septicæmia the writer administers a preliminary dose (twelve grains) of quinine sulphate. This is followed by douching of the vagina and digital exploration of the uterus for any retained secundines. The uterus is then washed out with a weak solution of corrosive sublimate, and an Ehrendorfer's pencil of iodoform (larger than the size usually sold) is introduced into the uterus. This is followed up by a mixture containing eight ounces of water, forty grains of quinine sulphate, and ten minims of carbolic acid, with bismuth, bicarbonate of sodium, and carminatives. In cases of prolonged diarrhœa tincture of opium is added. The iodine pencils and vaginal douches may be repeated if necessary. He does not find such large doses of quinine depressing, but endeavors to produce cinchonism.

A Large Multilocular Ovarian Tumor. By F. A. Baldwin.—The writer reports the case of a woman, aged fifty-nine, suffering from an enormous multilocular ovarian tumor. The condition of the patient was so bad that nothing could be done but await the coming of death. After death a hundred and fourteen pints of fluid were withdrawn through an incision in the lower abdominal wall. This fluid was at first clear, but later thick, and contained numerous flocculent masses. A second large cyst occupied the upper abdomen. From it twenty-eight pints and a half of fluid were withdrawn. The weight of the tumor was estimated at a hundred and eighty-five pounds.

A Combined Recto-vaginal Opening in the Human Subject. By Dr. J. G. Modlin.—The writer reports the case of a woman, aged twenty-four, in whom the urethra, vagina, and rectum all opened into one common vulva. The vagina and rectum were, excepting at their orifices, distinct, and the two tubes could be seen upon separating the labia. There was no sphincter. She had had two abortions. The only unpleasant symptom had been obstinate constipation and extremely painful defæcation. An operation was performed by which the rectum was separated from the vagina, a new anus being made, with an inch and a half of perinæum. The constipation is greatly improved and defæcation is easy and painless. The muscular fibres of the rectum have apparently undertaken the functions of the sphincter ani.

A Note on a Series of Cases of Epidemic Cerebro-spinal Meningitis. By Dr. H. Handford.—The writer gives a short account of five cases of the above-mentioned disease, seen by him during the past year. The ages varied from three to twenty-two years. The most prominent symptoms common to all were: 1. Rapid, if not actually sudden, onset, without injury or previous failure of health. 2. Fever—the temperature rose at once to 102° to 104° F., and very slowly subsided. 3. The intensity of the pain in the head and neck, aggravated by the slightest movement. 4. Marked retraction of the head. 5. Muscular hypertonicity, twitching, or rigidity. 6. Extreme and rapid emaciation. 7. Tendency to relapse and to intermissions. One case proved fatal after fourteen weeks' illness. Lumbar puncture was not practised. Morphine was given in full doses to relieve the pain. Potassium iodide did good in three cases and harm in one.

The Dublin Journal of Medical Science, June, 1900.

Toxines and Antitoxines. By Dr. A. C. O'Sullivan. —This article contains nothing new, but is a particularly clear, concise, and explicit statement of what is already known. The author explains the difference between natural and acquired immunity, and shows how the latter may be active or passive, according as the antitoxine-producing cells are stimulated to increased production or as antitoxine is supplied from without. He aptly compares the difference to that between the stimulation of the peptic glands to increased secretion and the ingestion of pepsin. He shows that the antitoxine is not produced by the blood cells, but by those tissue cells specially affected by the toxine. As to the mode of action, he clearly distinguishes between bactericidal and antitoxic properties in the production of immunity, showing the latter to be the essential factor. The two theories of the possible modes of antitoxic action are (1) Büchner's, that the tissue cell is immunized against the effects of the toxine upon it, and (2) Behring's, that the antitoxine neutralizes the toxine in the serum. All later evidence tends to support the latter view. It is shown that—1. The toxine enters into chemical, or molecular, combination with the cell protoplasm, and when in this combination is neutralized—*i. e.*, becomes innocuous for other cells. 2. The toxine enters into chemical combination with the antitoxine, and when in this combination is neutralized. 3. The antitoxine is produced by the cell and is thrown off by the cell into the blood. 4. The cells which produce the antitoxine are the same cells as those which combine with the toxine. From these conclusions we are led to Ehrlich's hypothesis that "that element, or group of atoms, in the cell protoplasm which combines with the toxine when it is thrown off by the cell into the blood is the antioxine." As in most tissue-regeneration processes, when any of these combining groups of the cell molecules are taken up by the toxine, they are replaced by the cell in very much increased numbers. This excess of cells loses its hold on the tissue cell by degrees and is discharged free into the blood current where it is ready to combine with the toxine and prevent its further progress toward those tissue cells to which it is destructive. "There is plenty of evidence to show that the part of the toxine molecule which poisons is not the same as that which first combines with the cell molecule." This combining portion is more stable and more rapid in action than the poisoning portion. Whence we can understand that the incubation period of a disease (which occurs in poisoning by toxines as well as by the living organisms) is the time in which it takes the poisoning group of the toxine to get to work after the toxine has been anchored to the cell molecule by its combining group. And, further, when a cell molecule is attacked by the toxine in quantities too small to destroy it, it is stimulated to reproduce the combining antitoxic bodies to excess, which, subsequently breaking loose and entering the blood stream, combine with and neutralize the toxine before it can get at the tissue cells to which it is destructive. An animal naturally immune to a given toxine is one whose protoplasm molecule contains few or none of the groups capable of combining with the toxine in question. The toxine can not thus get the necessary grip to deliver its blow. Every combining group remaining attached to the cell molecule is a point of attack wherewith such toxine elements as may elude the free combining groups can close to deliver their deadly blow on the cell molecule.

On Commercial Pepsin. By Sir Charles A. Cameron, C. B., M. D., professor of chemistry at the Royal College of Surgeons of Ireland.—The author gives the results of a series of investigations showing that out of twenty-one specimens of glycerin of pepsin tested under a recent order of the local government board, only four were perfectly correct, nine were wholly useless, and eight had lost from twenty-five to more than ninety per cent. of their digestive power.

The Dublin Method of Effecting the Delivery of the Placenta. By Dr. Henry Jellett.—This is an historical paper claiming to prove the following propositions: 1. That the method of effecting the delivery of the placenta by external manipulations, as opposed to its manual removal or its delivery by traction on the funis, was originated in Dublin. 2. That Credé's method, when promulgated *de novo* in Germany, was identical in principle with the Dublin method, and that it rapidly came to assimilate itself to the Dublin method in its most important details. 3. That, consequently, there is no difference between the Dublin method and Credé's method, and that, inasmuch as the method was originated in Dublin many years before the time that Credé discovered it for himself, its name is and ought to be the "Dublin method."

Gazette hebdomadaire de médecine et de chirurgie, July 12, 1900.

Traumatic Paralysis of the Brachial Plexus.—M. Pierre Duval and M. Georges Guillain give three causes of radial paralysis due to injury of the brachial plexus: 1. Compression of the nerve between the first rib and the clavicle in the elevation of the arm. 2. Compression of the nerve between the first rib and the transverse cervical process by the same manœuvre. 3. Hyperextension of the nerve through the shoulder movements.

Revue mensuelle des maladies de l'enfance, July, 1900.

Inflammations of the Kidney in Nurslings. By Dr. Goulkewitch.—The author thinks that nephritis is of more frequent occurrence in nurslings than is generally supposed; that the influence of heredity in its ætiology should be seriously considered; that modern pathology attaches too much importance to pathogenic microbes to the exclusion of those peculiarities of the organism which facilitate its infection; and that practitioners should preserve their case records for the benefit of their successors, in order to facilitate the study of the part played by heredity in the ætiology of different diseases.

Wiener medizinische Blätter, July 5, 1900.

Respiratory Passages in their Relation to Other Diseases.—Dr. Eugen Felix points out a number of clinical data in which the upper respiratory passages first point to constitutional disease. Epistaxis, for instance, may be due to chronic endocarditis or arteriosclerosis. Paralysis of the vocal cords may be caused by an aneurysm. He emphasizes the importance of the observation of all minor symptoms from these organs as furthering diagnosis. (To be continued.)

Treatment of Genuine Epilepsy. (Continued article.)—Dr. L. Hascovec speaks of the substitutes for bromides in epilepsy in this division of his paper.

Pneumonia. (Conclusion.) By Dr. J. Barr.

Wiener klinische Rundschau, July 8, 1900.

Peculiar Hæmoglobin in Paroxysmal Hæmoglobinuria.—Dr. Adolf Jalles reports a case in which the hæmoglobin in the urine, although it showed most of the usual reactions, on the addition of hydrochloric and acetic acids became split up into a soluble peptone and an insoluble ferric and phosphoric body and no longer showed Teichmann's crystals.

Method of Infection.—Dr. E. Aron emphasizes the rôle which the crypts of the tonsils play in the causation of infectious disease. Many persons have many and deep crypts, and these frequently form a nidus for the growth of organisms and their dissemination throughout the body.

Berliner klinische Wochenschrift, July 2, 1900.

Present Status of Bacteriology.—Dr. Baumgarten writes an historical and philosophical essay on the subject. (To be continued.)

Bacteriological Finding in Scarlatina.—Dr. Paul Sommerfeld describes a streptococcus which he has found in the heart blood of forty-two bodies dead of scarlatina. He regards it as of ætiological importance. (To be continued.)

Treatment of Phthisis in Hospitals and Poor Patients.—Dr. Burghart advises rest in bed for the reduction of the fever, aided, if necessary, by small doses of quinine or phenacetine. For the sweating, he recommends small doses of alcohol or rubbings with formalin alcohol at bedtime, ten per cent. of formalin and three or four per cent. of oil of peppermint in alcohol. Diarrhœa must be controlled by suitable diet, by bismuth, opium, tannalbin, and tannigen among the drugs. The pain may be ameliorated by warm compresses or oil inunctions, or a fixation of the chest by means of adhesive plaster, if there is a pleurisy. Other symptoms must be treated as they arise. Fresh air, sunlight, and wholesome diet must be insisted upon. (To be continued.)

Increase of Blood Cells at an Elevation. By Dr. Ad. Gottstein and Dr. G. Schröder.

Composition of Renal Calculi. By Dr. L. Spiegel.

Cerebral Anatomy and Psychology. By Dr. L. Edinger. (Conclusion.)

Centralblatt für innere Medicin, July 7, 1900.

Unfavorable Experiences in the Subcutaneous Employment of Gelatin as a Hæmostatic. By Dr. Max Freudweiler.—The author gives accounts of two cases in which the gelatin treatment, although conducted with every precaution, not only did no good, but actually did harm. One was a case of chronic hæmorrhagic parenchymatous nephritis in a girl fifteen years old, who had never shown a hæmorrhagic tendency. She had a soft systolic murmur at both cardiac orifices. Her lungs were free. Menorrhagia set in and attacks of epistaxis became frequent. Three injections of about four ounces each of a solution consisting of one part of gelatin, two parts of glycerin, and a hundred parts of distilled water were slowly thrown into the subcutaneous tissue of the thigh. They were administered two days apart. About six hours after each injection there was rather severe local pain with infiltration, which subsided in about twelve hours. On the day after the third injection the temperature was over 100° F. There was no diminution of the blood in the urine, which had already assumed a peculiar brownish color. There were numerous red blood corpuscles in the sediment, together with a number of brown flakes. The filtered urine was brownish-red, and methæmoglobin was detected with the spectroscope. The serum of the blood was found to be reddish. On the day after the third injection the amount of albumin in the urine was increased from four per cent. to nine per cent. It was nearly three months before the urine had wholly regained the conditions it had shown before the injections. The other case was one of post-puerperal acute hæmorrhagic nephritis, and the results of the use of gelatin were about the same as in the first one. The author thinks that the gelatins have the same irritant action on the kidneys as the peptones have.

Deutsche Aerzte-Zeitung, June 15, 1900.

Two Mysterious Cases of Fracture. By Dr. Carl Lauenstein.—One of these very remarkable cases was that of a man who had a phlegmonous inflammation of the foot and leg. A free incision was made behind the inner malleolus and extending up the leg. To his surprise, the author found the calcaneum broken into about ten pieces, but no history of any injury sufficient to produce such a result could be obtained from the patient, from his physician, or from any source. In the other case, which was similar in some respects, it was the olecranon that was found the subject of multiple fracture that had occurred without any ascertainable cause. Another remarkable feature was the presence of gonococci in the pus of the elbow joint, although no evidence of gonorrhœa could be elicited.

Events at Parturition in "Nervous" Women. By Dr. Oskar Schaeffer.

Clinical Experiences with Salacetol in Rheumatic Affections. By Dr. A. Lasker.—Salacetol is described as the salicylic-acid ester of acetol. It passes the stomach unchanged, and therefore does not disturb gastric digestion. It splits up in the intestine, where the acetol is changed into acetone and eliminated. The nascent salicylic acid is particularly active and can very soon be detected in the urine. The author has used salacetol in twenty-three cases of the first attack of acute articular rheumatism, in fifteen recurrent cases, in eight of chronic articular rheumatism, in five of gonorrhœal articular rheumatism, in six of muscular rheumatism, and in four of sciatica and other neuralgias. He generally gave it in doses of thirty grains three or four times a day. He found it quite as efficient as salicylic acid or sodium salicylate, but several of the patients, particularly women, complained of the same tinnitus, headache, impairment of hearing, etc., as are caused by the ordinary salicyl drugs.

The Larvæ of Flies as Occasional Parasites on Man. (Continuation.) By Dr. Erich Peiper.

Acetic Acid as a Disinfectant. By Dr. L. Fürst.—In an emergency the author has often used vinegar for disinfecting his hands and the region of some operative procedure, and has found it satisfactory.

Riforma medica, June 27, 1900.

A Case of Gynæcomastia. By Dr. Vincenzo Traina.—The author briefly reviews the history of this affection and reports a case which he has observed in the clinic of Professor Tansini. The patient was a man, aged fifty. About two years before admission he noticed accidentally a swelling on the left breast as large as a hazelnut, and at the same time he began to feel a sensation of fullness in the breast. On examination it was found that he had a tumor of the size of an orange, with a smooth surface, of a fleshy, elastic consistence, movable upon the underlying muscles and merging imperceptibly into the glandular tissue. The skin was movable over it. The axillary glands of the same side and those of the opposite side were normal. On one occasion some whitish serous liquid came from the breast on pressure. The tumor was completely removed and was found to be a hypertrophied mammary gland in which the connective-tissue elements predominated.

Vratch, June 17, 1900, (O. S.), June 29, (N. S).

Concerning the Contagiousness of Tuberculosis. By Dr. Jbankoff.—The tendency of an inexact science like medicine is to go to extremes in every newly discovered path, and to draw conclusions from a newly discovered law that are not warranted by the recorded facts. An example of this kind is the present tendency to inject some sort of serum against everything. Thus, the use of the serum of a calf immunized against small-pox in the treatment of whooping-cough, etc. The present tendency to fear tuberculosis as a contagious disease is very detrimental in many respects to the patients as well as to the general conditions of human society. The tuberculous patient is so unmercifully persecuted nowadays that it would almost be better to follow the example of the Spartans and kill all persons affected with tuberculosis. The author has not seen a single case of infection with tuberculosis during eight years and a half of experience in country districts. Most of the cases of tuberculosis in these villages occurred in men who went to Moscow or St. Petersburg for several years and then returned to their homes. He never saw a case of tuberculosis transmitted by these men to their wives, children, or other relatives, although the crowded condition in which these peasants live is well known. Hueepe said: "The presence of Koch's bacilli is not enough to produce tuberculosis," and Vergely expressed the same idea more tersely: "The soil is everything, the microbe nothing." (To be continued.)

Excision of Portions of the Vasa Deferentia in Senile Hypertrophy of the Prostate and Results of this Operation. By Dr. I. D. Koudintzeff.—Our knowledge concerning the causes of hypertrophy of the prostate are still very incomplete. Probably there is some truth in every theory and these fragments of truth will be united some day by further investigations concerning the physiology and pathology of the gland. The author briefly sketches the literature of division of the vas, castration, and analogous operations for hypertrophy of the prostate, and states that he considers the excision of a portion of the vas the most efficient operation of this class. He usually performs this operation under cocaine. He first palpates the cord and isolates the vas with his fingers. An assistant then holds the latter firmly in two places. An incision is then made, layer by layer, until the vas deferens is exposed; it is then drawn out as far as possible above and below, and tied with ligatures, leaving an interval of 1.5 to 2 centimetres between them; the intervening part is excised and the wound is closed with a double row of sutures. In what way the excision of a portion of the vas deferens produces an improvement in the clinical symptoms of prostatic hypertrophy is not known, but after a certain time the functional disturbances which characterize the disease before the operation begin to disappear. The author reports twenty-five cases that had been operated upon in the manner described above. (To be continued.)

Concerning the Treatment of Purulent General Peritonitis. By Dr. A. P. Ivanoff.—The majority of cases of this affection do not come primarily under the observation of surgeons. Recoveries without operation are almost unknown, and even operations are so rarely successful in general septic peritonitis that physicians do not always recommend operative interference. The author has collected from literature all the cases of this form of peritonitis that have been reported as recoveries after operation, and describes two cases which he operated in 1899. In both the general peritonitis was due to the perforation of a gangrenous appendix. In one of these cases the patient entered the hospital without any symptoms of appendicitis, but with signs of intestinal obstruction. He was operated on the third day of his illness, and it was found that the symptoms were due to effusion and adhesions in the peritoneal cavity. This patient got well. In the second case the operation was also performed after the onset of the general peritonitis, but the septic process was more severe and the patient died. The author believes, however, that this patient did not die from a progressive general peritonitis, because a secondary operation that was performed on the day of his death showed that the peritonæum was almost normal and that there were no adhesions nor any effusion. The only two possible causes of this patient's death were intestinal obstruction, due to the fact that the lateral anastomosis between a portion of the small intestine and the descending colon was insufficient, or that enough toxines had been absorbed from the peritonæum to produce a general septicæmia. In the absence of an autopsy it was impossible to tell which of these two causes produced the fatal result. In conclusion, the writer says that the opening of the peritoneal cavity and the removal of the source of the pus is the only radical treatment of general septic peritonitis and the only method that gives promise of success. The sooner the operation is performed the better the prognosis. He agrees with Zykoff that copious irrigation of the peritonæum with a mild solution is not only harmless but very useful in the treatment of general septic peritonitis.

American Journal of Obstetrics and Diseases of Women and Children, July, 1900.

Syncytioma Malignum and Ectopic Gestation causing Pernicious Nausea. By Dr. Edward P. Davis and Dr. H. F. Harris.

Selected Topics in Connection with the Pathology of Delivery. By Dr. J. Clarence Webster.

The Application of Forceps. By Dr. J. E. Allaben. —Dr. Allaben believes that in the course of a few years the axis-traction forceps will be the instrument commonly employed in private practice. He properly condemns the use of brute force in the use of the forceps. If in any case, he says, undue force is required, it is a sign that the use of the instrument is contraindicated, and to persist in using it is a procedure compared with which symphysiotomy and the Cæsarean section are conservative operations.

The Technique of Version. By Dr. J. F. Percy.

The Management of Impacted Cases. By Dr. Henry F. Lewis.

The Mutilating Operations in Obstetrics. By Dr. C. S. Bacon.

Cæsarean Section and Porro's Operation. By Dr. Charles B. Reed.

Symphysiotomy in Illinois. By Dr. G. N. Kreider.

A Method of Performing Anastomosis of Hollow Viscera by Means of a New Instrument. By Dr. M. O'Hara.

The Brooklyn Medical Journal, June, 1900.

The Varieties of Rheumatism and their Differential Diagnosis from Rheumatoid Affections. By Dr. Glentworth R. Butler.—The author divides the diseases which, with one exception, present articular symptoms into rheumatisms proper and rheumatoid affections. Rheumatisms comprise rheumatic fever (acute or subacute), chronic articular rheumatism, and muscular rheumatism (acute, subacute, or chronic). The rheumatoid affections include: 1. Gout and arthritis deformans. 2. Post-febrile or secondary and septic arthritis, including the pain, swelling, and effusion in joints complicating gonorrhœa, scarlatina, cerebrospinal fever, small-pox, pyæmia, dengue, typhoid fever, dysentery, and glanders. To these are added the acute inflammation of a single large joint occurring in infants, and some cases of acute osteomyelitis. 3. Certain blood diseases, hæmophilia, purpura, and scurvy occasionally manifest joint disturbances. 4. In certain nervous affections joint changes occur—e. g., in chorea, acute myelitis, locomotor ataxia, syringomyelia, and hypertrophic pulmonary osteoarthropathy. After discussing the diagnosis between these conditions, the author concludes that there are precisely three ailments which, acocrding to the latest definitions, can properly be called rheumatism—namely, rheumatic fever, chronic articular rheumatism, and muscular rheumatism; that rheumatic fever is without much doubt an infectious disease; that the other two varieties may also prove to be infectious; and that, while there are many maladies which present arthritic symptoms resembling those of rheumatism, mistakes in diagnosis are not common, but in occasional instances are unavoidable.

The Bacteriology of Acute Rheumatism. By Dr. Ezra H. Wilson.—The author describes Achalme's researches published in the *Annales de l'Institut Pasteur* for November, 1897, describing his discovery in 1891 of an obligate anaerobe bacterium in a state of purity at the autopsy of a man who had died of cerebral rheumatism. The same organism, having the appearance of a large rod resembling *Bacillus anthracis,* staining with the aniline dyes and not decolorizing under Gram, has since been found by other observers nine times—viz., twice at autopsies, four times in blood from the veins of the arms of living patients, and in two cases associated with micrococci. Sodium salicylate added to the medium hinders the development of cultures. The medium in which the bacillus grows tends rapidly to become acid and unable to preserve the vitality of the organisms. Alkalinization of the medium by calcium carbonate prolongs their vitality.

Ætiological Factors in Rheumatism. By Dr. W. N. Belcher.—The author considers the various theories as o the causation of rheumatism—viz.: (1) the lactic acid; (2) the malarial; (3) the endocarditis; (4) the nervous; (5) the uric acid; (6) the bacterial origin—and concludes that "it may be safely assumed that acute rheumatism is properly regarded as an infectious disease, and that it is presumably due to a micro-organism introduced into the body from without. Conclusive results of careful bacteriological investigation are, however, still wanting.

Is there a Surgical Side to Acute Rheumatism? By Dr. A. T. Bristow.—The author calls attention to the remarkable resemblance borne by the disease to other inflammations, notably of serous membranes, which we know to be the result of microbic infection—*e.g.,* "gonorrhœal rheumatism," tuberculous "white swelling," etc. The tendency to regard rheumatism as an infection leads to the question whether it may not have surgical aspects. Other microbic diseases affecting joints may be divided according as they always or occasionally demand opening of the joints and drainage. Suppurating joints in any case belong to the first class. To the second may be relegated tuberculous and gonorrhœal diseases. The element of sepsis does not enter into the second class so uniformly as into the first; consequently other measures for the relief of the endangered structures may occasionally be used to give time for the reparative efforts of Nature. The reasons for surgical intervention in rheumatic disease may be either an obstinate arthritis with effusion not yielding to medical treatment, intoxicating the system, and affording a nidus of incubation for reinfection; or the danger to the joint's usefulness from chronicity of the disease. Possibly also the diminution of the risk of heart lesions by drainage of the joint. The author refers to O'Conor's experience of clinical surgery in acute rheumatism as published in the *Annals of Surgery* for February, 1898, and April, 1899, for which he engages the careful consideration of surgeons.

Thermaerotherapy in Rheumatic Affections. By Dr. G. L. Kessler.—The author argues in favor of hot dry air as a very valuable adjunct in the treatment of rheumatism, and states that its disadvantages, as burns, heat stroke, etc., have been overcome by an apparatus devised by himself. The following points are emphasized:

Constant circulation, dryness, and a gradually increasing temperature of the air in the apparatus from the beginning to the end of a treatment; the head should never be put into the hot-air chamber; the body must be kept from contact with any good heat conducting material of the apparatus; the parts under treatment must be wiped free from accumulated moisture as soon as it collects, and they must not be covered with cloths until the patient is unable to bear the heat without; and when the cloths are applied they should be loose, with as few folds as possible. The temperature must never be over 380° F.

The following effects have been observed: Stimulation of the sweat and sebaceous glands, the perspiration showing the elimination of lactic acid, urea, sodium chloride, and the volatile fatty acids of sebum, with uric acid in lithæmic cases. The growth of epithelial cells around old ulcers. Smoothness and softness of the skin. Strengthened cardiac pulsations. Stimulation of lymphatics and absorption of abnormal deposits. Increase of respirations. Increased excretion of urine. Increased alkalinity of the blood. A rise of body temperature during treatment, which, however, soon falls. Stimulation of the cutaneous and superficial vasomotor nerves. Soothing of the sensorium and a tendency to sleep. Slight loss of weight. There is a temporary increase in the soreness of gouty and rheumatic joints during the softening and absorption of tophi and fibrous adhesions.

Patients are stripped, clad in a flannel bathrobe, and so attired are placed in the moderately heated body apparatus in a reclining position, with a pillow under their heads. By adjusting the canvas curtain at one end of the apparatus, as much of the body and limbs is subjected to the heat as desired. Damp, cool cloths are kept on the forehead or nape of the neck, and are changed as soon as they are heated by a trained nurse, who is in constant attendance. Cool or hot lithia water is given if thirst is complained of or a profuse perspiration is desired. Dry cloths are placed over the parts under treatment, when patients find the heat too intense, and are changed as often as necessary. The patient is allowed to remain in the machine from forty minutes to an hour; he is then placed upon a padded massage table, covered with Turkish towels or a blanket, and allowed to perspire for fifteen minutes. A masseur then rubs the patient dry, thoroughly massages the affected parts, if necessary, and finishes with an alcohol sponge. In from half to three quarters of an hour later the patient is allowed to leave. In the leg and arm apparatus the patient is prepared as for the body machines, but sits in a chair, with the affected limb in the hot-air chamber. Canvas attachments are cut to fit different portions of the body for local treatment.

Miscellaneous.

The Surgery of the Internal Semilunar Fibro-cartilage.—W. Arbuthnot Lane, M. S. (*Clinical Journal,* June 6th), is convinced, contrary to the usual teaching, that tuberculous affection of the knee joint is in adult life almost always consequent upon damage to the internal semilunar fibro-cartilage, and that in young life it frequently results from it either directly or indirectly.

As to the mode of injury, the author thinks it is clear that the cartilage is drawn in between the tibia and femur by atmospheric pressure when these bones are separated forcibly from one another, and that it is caught between them before it has time to escape on their coming suddenly into apposition. The portion of the cartilage which usually sustains injury is the inner part of the crescent just behind its centre. The destruction of this part renders the circumference of the whole cartilage greater, so that it projects outward beyond the margins of the bones, where it can be readily felt when swollen, and extends inward between them to an abnormal extent when they are separated from one another. Consequently each recurring injury to the cartilage renders it more movable, and more liable to injury.

At the same time a cartilage may have been severely nipped on many occasions, and have produced on each a prolonged disability, without its showing between the accidents any very distinct evidence of damage.

After the cartilage has been completely divided the anterior portion is sucked still further in between the bones, and is cut off from its attachment to the capsule. Finally it forms a tag which has only a small attachment to the tibia in front of its spine. This plays freely about in the joint, and may even be felt external to the tendo Achillis. When this stage is reached its connection with the internal fibro-cartilage may be readily missed, since a structure resembling the original fibrous wedge is then generally pretty well developed. It occasionally happens that instead of the progressive destruction of the cartilage it may, in the first instance, have been sucked in so completely that pressure is brought to bear directly upon its connection with the capsule in the anterior two thirds of its extent. In such cases its continuity may be intact, while its anterior two thirds may be displaced outward into the interval between the condyles, it only retaining in front its connection with the spine of the tibia.

The separation of the surfaces of the tibia and femur from one another so as to allow of the fibro-cartilage being forced in between them, is always produced in the same manner, though not necessarily in the same position. If you stand with the knee flexed, and the tibia and fibula rotated outward around the vertical axis, and exert pressure downward through the head of the femur, you can readily feel that the anterior two thirds of the inner margin of the internal condyle of the femur are separated from the corresponding margin of the tibia to an extent which varies directly with the amount of force used, and inversely with the security of the knee joint. This separation of surfaces takes place in all knee joints to a greater or less extent, and results from the leverage action exerted by the long bones of the leg upon the knee joint, force being applied vertically outside and behind the articulation of the external condyle with the tibia, which acts as a fulcrum, the internal condyle of the femur and tibia being forcibly separated. In no other position of the knee joint can force be exerted so as to separate these surfaces, and careful inquiry into the modes in which this cartilage has been injured will show that the mechanics of the production of the injury are as stated.

From a recognition of the causation of this injury our treatment must be based on certain definite principles.

First, the patient should be kept at rest after the injury with the knee joint in a position of complete extension, in order to allow the bruised and inflamed cartilage to recover, and that its outline may be retained as intact as possible. When all tenderness to pressure on the cartilage and pain and effusion have quite disappeared, the muscles that control the movements of the knee joint should be developed in order to render it secure, and its fit, as a most important bearing, accurate and reliable.

The position in which the injury to the fibro-cartilage was effected—namely, that of flexion of the knee and outward rotation of the tibia and fibula—should be avoided, and the assumption of this attitude may with advantage be controlled or opposed for a time by a suitable apparatus. If recurrence takes place, or if in spite of prolonged rest the cartilage still remains swollen and tender on pressure, it should be removed.

In the large majority of cases the author excises only the anterior two thirds or three fourths of the fibro-cartilage, since the remainder causes no trouble whatever subsequently. At the same time the remainder of the cartilage can be extracted by forcibly flexing the knee, rotating the leg outward, and separating the internal condyle from the tibia. He believes that the complete absence of any accident in the operations performed for the removal of this cartilage can be guaranteed by the surgeon never touching the wound with his hand, and not passing through his fingers the pieces of silk left in as sutures connecting the margins of the capsule. Although he has removed a great many fibro-cartilages, he does not remember any case that caused anxiety, or in which free movement was not obtained subsequently.

Among the changes that may ensue in the knee joint because of a direct injury, a severe contusion of the articular cartilage covering the opposing surfaces of the femur and patella resulting from a blow on the latter bone may produce just such mechanical or traumatic arthritic changes as arise in other joints from the same cause. They vary with the age of the patient, and with the force of the blow. Before middle life the tendency is toward repair of the damaged cartilage, a smooth surface being the result. After middle life the tendency is toward progressive destruction of the articular surfaces, the cartilage being removed in the first instance, and the bone beneath it exposed. The area from which the articular cartilage is removed is increased by frictional changes, and the exposed bone is indurated, polished, and slowly rubbed down. Later the process extends to the margins of the articular surfaces, and lips of bone are formed upon them. The joint becomes insecure and distended with fluid. In the vain attempt to limit its range of movement, bone is deposited freely about the joint. Sometimes it is deposited in masses in the ligaments and synovial membranes. We shall now consider the result of the direct impact of force upon the articular cartilage of the femur. In flexion of the knee beyond a right angle there exist two considerable areas of the articular surfaces of the condyles of the femur below the patella and on either side of the ligament which are covered merely by skin and by the capsule of the joint. In the position of kneeling with the knees separated by a moderate interval, the portion of the under surface of the internal condyle comes into immediate relationship with the ground. When kneeling on one knee, the under surface of the external condyle comes into contact with the ground. In falling on one knee, the same portion of the articular surface of the external condyle sustains much of the impact. If the force of the blow sustained is sufficiently great, a portion of the articular cartilage is fractured and is displaced from its connection with the femur. It moves about in the joint and forms a loose body. If left for some time, the sharp, cut edges, both of the loose piece and the depression eft by its removal, are gradually rubbed down, and the author believes that after a time the loose body may be completely absorbed, and the place from which it esaped may be represented only by a slight concavity in he articular surface. It is in this manner that most oose bodies (not developed as part of a mechanical or raumatic arthritis) are developed.

Gasoline as a Surgical Detergent.—Dr. Bruce L. Riordan (*Canadian Pharmaceutical Journal*, June), in a paper read recently before the International Associaion of Railway Surgeons, uses commercial gasoline, hich is a product of the fractional distillation of rude petroleum, as a surgical detergent for cleansing he field of operation and wounds and for subsequent ressings, employing neither water nor solutions. He as first led to its employment for cleansing the hands f railway employees grimy from "black oil." It is aid not to irritate fresh wounds or granulating suraces. It is best applied by means of an ordinary wipe f cotton batting or sterilized gauze. The gasoline immediately evaporates and leaves the surface dry and erfectly free from grease. If strapping is to be used, his method acts better than any other mode of cleansing. The author's results, so far as healing and absence of infection are concerned, have been most satisfactory. Adherent dressings are easily removed after squeezing on them a few drops of gasoline, as are also sutures imbedded in iodoform and exudates. Experiments have shown that scrapings from the skin cleansed with gasoline gives a relatively small number of micro-organisms as compared with unsterilized skin and skin cleansed with soap and water and 1-to-60 carbolic lotion. Gasoline must not, of course, be used near an open light on account of its extreme inflammability; and if it gets into cavities such as the ears or eyes it is irritating like chloroform and ether. Applied, however, to any surface where it can rapidly evaporate, it gives a cooling, pleasant sensation.

The Treatment of Inoperable Sarcoma with Mixed Toxines. — Dr. William B. Coley (*St. Paul Medical Journal*, June) sees no occasion, from his results during the past year, to change his previously expressed opinions. He still finds the spindle-celled variety most affected, then the round-celled, and, last of all, the melanotic. He has nothing new to add as regards the preparation and the technique of administration. Experience has shown that the toxines may be given for very long periods without injury to the patient. The microparasitic and infectious origin of the disease is the proper explanation of the action of the toxines, and the author even considers that the action of the toxines affords corroborative evidence of the infectious origin of sarcoma and carcinoma. The author reports four additional recent cases and gives the later history of twenty-four previously recorded ones, which certainly tend to support the permanent value of the treatment unless recourse is had to denying the nature of the cases, which in view of the severe standards of diagnosis seems unfair, or to the supposition that the cases were instances of spontaneous disappearance, which in the case of such a number is hardly likely. As to the limitations of the treatment, the author says that he has used the toxines in upward of two hundred cases with but two deaths. In estimating the percentage of cures it is well to remember that the treatment is advised only in cases of sarcoma in which there is no hope of cure from operation; in other words, in entirely hopeless cases. The author believes that the most promising field lies in the use of the toxines in small and safe doses directly after the primary operation, instead of waiting for a recurrence to appear. If the toxines can in a considerable number of cases destroy and permanently cure large inoperable sarcomas, it is reasonable to suppose that their administratioin after operation will destroy the invisible portions left behind, and thus in a much larger number of cases prevent subsequent recurrence.

The preparation which he believes to be the best is the mixed unfiltered toxines of erysipelas and *Bacillus prodigiosus* made from cultures grown together in the same bouillon and sterilized by heating to 58° C. In children and persons much reduced in strength it is safer to use the filtered toxines. The preparation being bacteriologically sterile may be safely used in general hospital wards.

The Disinfection of Wells by Permanganate of Potassium.—M. Delorme (*Gazette hebdomadaire de médecine et de chirurgie*, June 24th), in a communication to the French Academy of Medicine, gives the following directions: By means of a weighted cord the depth of water in the well is ascertained. The diameter of the well being known, the cubic contents of the water contained therein are easily calculable. A one-per-cent. solution of permanganate of potassium is then to be put therein in the proportion of about one quart of solution to every twenty-five gallons of water to be disinfected. With a sterilized rod the water is then well stirred, and when at about the end of half an hour a sample shows that the water has the color of wine lees, powdered charcoal, one part, and fine sand, three parts, sterilized by heating and mixed, are to be thrown into the well. At the end of three or four hours, disinfection being assured, the carbon deposited and the water clarified, the well is to be exhausted to do away with the least traces of antiseptic, and when bacteriological analysis, repeated for a month, shows the presence of only a small quantity of microbes and a total absence of pathogenic germs the water may be declared good for consumption.

Epicarin.—The *Medical News* for June 16th, citing Kaposi in the *Wiener medicinische Wochenschrift* of unspecified date, says that epicarin is a combination product of cresolin and beta-naphthol, easily soluble in alcohol or ether. It is a powder of slightly yellowish color and has been proved free from any poisonous or inflammatory reaction. The action of epicarin externally applied is to produce mortification of the superficial layers of the epidermis and occasionally to produce a slight exudation. The scope of its administration is co-extensive with that heretofore accorded to naphthol, namely, scabies and the dermatosycoses. In scabies the best method of application is a ten-per-cent. ointment. The annoying itching ceases very often after but one application of the ointment. In prurigo the most surprising results have been attained with epicarin. In this affection the entire body of young children was rubbed with the ointment as often as ten times without causing either albuminuria or other disturbances. In herpes tonsurans a ten-per-cent. alcoholic solution may be used as well as the ointment with good results. For scabies, eczema squamosum, etc., the following formulæ are suggested:

1. ℞	Epicarin	10.0
	Simple ointment	100.0

Ft. unguent. For external use.

2. ℞	Epicarin	10.0
	Brandy	100.0
	Spirits of lavender	25.0
	Glycerin	10.0

M. Sig.: As a wash.

Subacute Œdema of the Lung.—Dr. J. Le Sage (*Union médicale du Canada,* June), in a paper on this subject, formulates the following conclusions: 1. Acute œdema of the lung is a grave complication encountered in the course of acute or chronic nephritis with or without cardiac lesions. 2. The attack often supervenes suddenly without any evident precursory signs, the individual apparently enjoying the best of health. 3. This affection is characterized by an excessive embarrassment of respiration, accompanied by cough and expectoration of a rose-colored frothy liquid. 4. The diagnosis is made by means of a well-known syndrome. The presence of albumin in the urine is constant. 5. The prognosis is grave; it frequently depends upon the mode of therapeutic intervention. 6. The treatment consists especially in abundant venesection, cardiac stimulants, alkaline drinks, and an absolute milk diet. 7. Morphine is absolutely contraindicated in subacute œdema of the lung.

A Curious Paralytic Phenomenon in an Hysterical Subject.—Pick (*Gazzetta degli ospedali e delle cliniche,* May 22d) has observed a phenomenon very interesting from the viewpoint of the interpretation of disorders of movement. The case was one of an hysteric affected with left hemianæsthesia, with total loss of the knowledge associated with diminution of movement on that side. The patient could not raise the arm to the level of the shoulder, and, while the dynamometer registered fifty kilogrammes for the right side, it only showed fifteen for the left. With the eyes closed the patient found it absolutely impossible to move the arm. Passive movements of the left arm were not distinctly perceived and could not be imitated with the right. On the other hand, the subject reproduced with the left arm, which he was unable to move spontaneously, the passive motions executed by the right. This phenomenon, which may be termed parallelokinesia, has not, so far as the author knows, been hitherto described. Though Anton, of Gratz, makes mention of it in describing three cases of localized lesion on the motor tract, he expressly adds that he has sought for it vainly in hysteria. This phenomenon stands to motor paralysis in the same relation that transcortical motor aphasia bears to disturbances of speech.

Bladder Symptoms in Appendicular Inflammation.—M. Lefilliatre (*Presse médicale,* June 30th) showed at a recent meeting of the Paris Anatomical Society an inflamed vermiform appendix which at the time of operation measured about six inches and three eighths and was adherent to the bladder. This relation to the bladder doubtless accounted for the retention of urine and vesical symptoms which marked the beginning of the inflammatory access.

Morphine in Puerperal Convulsions.—Dr. David Hogg (*Canadian Practitioner and Review,* July) concludes a paper on this subject as follows: "1. That while in morphine we possess a valuable, perhaps the most valuable, drug for the control of puerperal convulsions, I would not yet be inclined to rely on it in the worst types of the disease with complete suppression of urine and a comatose state between attacks, but would rather have recourse in such cases to every means to promote diaphoresis and the free action of the bowels. 2. That it is much less useful in non-albuminous cases than in those where albumin is present, and may even be harmful in such cases. 3. That it is of comparatively little value before delivery, chloroform being the drug of election at that time. 4. That to be efficient it is necessary to use it in large doses, as much as half a grain being borne at such times without any harm resulting."

The Composition and Action of Brown-Séquard's Fluid.—Dr. W. E. Dixon (*Lancet,* July 7th) recently gave to the Pathological Society of London an abstract of the results of experiments which he had performed by injections of orchitic extract of different animals. The composition of orchitic extract of all animals was practically identical. The active principles consisted chiefly of two bodies: (1) nucleo-albumin, and (2) spermine. The former, he showed, was very toxic, producing great cardiac inhibition reflexly through the cardiac nerve centres. The latter, spermine, which was also present in considerable quantity in semen, produced its effect principally by causing congestion of the abdominal viscera, including both the testes and ovaries.

Book Notices.

Traité de médecine et de thérapeutique. Publié sous la direction de MM. P. Brouardel, Doyen de la Faculté de médecine de Paris, etc., et A. Gilbert, Professeur agrégé à la Faculté de médecine de Paris, etc. Tome septième. Maladies du nez, du larynx, de la trachée, des bronches et des poumons. Par MM. Cartaz, Castex, Barbier, H. Barth, P. Claisse, Mosny, L. Landouzy, H. Triboulet, Grancher, Balzer, Méry et Le Noir. Paris: J.-B. Baillière et fils, 1900. Pp. vii–931.

This volume of a great French systematic treatise deals with the diseases of the respiratory passages, the nose, the larynx, the trachea, the bronchi, and the lungs. The removal of adenoid vegetations in children is emphasized as prophylactic of later diseases of the ear and nose. The surgical treatment of abscess and gangrene of the lungs is advocated; but in the former case the contraindication to operation when the abscess is a sequel to scarlatina or a complication of pyæmia is noted. There is an interesting historical sketch of pulmonary tuberculosis, and the sanitarium treatment of the disease is recommended on physical, as on political, grounds. The monograph on tuberculosis is the most extensive we have seen since the publication of Cornet's book. It embraces every phase and considers every possibility of the disease. The other portions of the volume are up to the usual standard of the work.

Leçons de clinique chirurgicale faites à l'Hôpital de Montpellier. Par le Dr. E. Tédenat, Professeur de clinique chirurgicale à la Faculté de médecine. No. 1. Montpellier: Coulet et fils. Paris: Masson et cie., 1900. Pp. ii–4 to 490.

This volume is a brochure upon surgical topics, representing the work done in the hospital at Montpellier. Some of the subjects embraced are perforating ulcer of the foot, hydatid cyst of the muscles, suppurative myositis, fissure of the anus, fistula in ano, tuberculous cystitis, and prostatic hypertrophy. The essay on each subject is clinical and pathological in character. The volume has a special interest for the surgeon.

Le Rhumatisme articulaire aigu en bactériologie. Par H. Triboulet, Médecin des hôpitaux de Paris, et A. Coyon, Interne des hôpitaux de Paris. Avec 4 figures dans le texte. Paris: J.-B. Baillière et fils, 1900. Pp. 95. [Prix, 1 fr. 50.]

The authors have made a clinical and bacteriological study of acute articular rheumatism in this monograph, and have concluded that at the present time no definite micro-organism can be ætiologically assigned to the disease. They believe that rheumatism is not a single entity, but that cases are seen in which a simple, uncomplicated rheumatism exists without the presence of any known specific germ; there are other cases complicated by an endocarditis with no known specific exciting organism; still others with no endocarditis, but with other complications; and, finally, cases in which a variety of complications exist, in which different kinds of bacteria have been found. They regard the gastro-intestinal tract as the most important focus of secondary infection. The brochure is interesting and shows the results of careful study and research.

Untersuchungen über die Möller-Barlow'sche Krankheit. Von Dr. J. Schoedel, Assistenten, und Prof. C. Nauwerck, Prosector. Jena: Gustav Fischer, 1900. Pp. 159.

The authors have considered carefully the findings in five cases of Barlow's disease, and have reached the conclusion that rhachitis is the fundamental ætiological factor which is responsible for the development of the scurvylike features of the disease. They admit that other congenital osseous lesions may be at fault, but in their cases they were always able to demonstrate rhachitic changes. There is a systematic review of the symptoms of the disease, based upon their own observations, with epicritical remarks upon the literature of the subject. A full bibliography accompanies the text.

Die Untersuchung des Harns und sein Verhalten bei Krankheiten. Von Dr. med. C. Beier, Bauske (Curland). Mit 18 Abbildungen im Texte. Leipzig: C. G. Naumann, 1900. Pp. vii–249.

The author has divided his work into two parts. In the first he has described the simpler tests of uranalysis, including the latest devices, which can be made by the practitioner without great effort or special apparatus. The second portion treats of urinary tests of a more complicated nature and includes the examination of the urine in diseases of the blood and of metabolism, the acute infectious diseases, genito-urinary affections, and cardiac, respiratory, digestive, and nervous affections. The work is well illustrated and is very complete. The author has not only embraced accepted teachings, but has introduced methods which have not yet stood the test of time, not always, however, indorsing them.

Lehrbuch der klinischen Hydrotherapie. Für Studirende und Aerzte. Von Dr. Max Matthes, a. o. Professor und Direktor der medicinischen Poliklinik an der Universität Jena. Mit Beiträgen von Stabsarzt Dr. Paul Cammert, Privatdocent Dr. Ernst Hertel, und Professor Dr. Felix Skutsch. Mit 55 Abbildungen im Text. Jena: Gustav Fischer, 1900. Pp. xii–410.

The author has undertaken not only a complete clinical review of the treatment of disease by baths, but has sought a physiological explanation of its effects. He has been impressed by the fact that many writers have assigned the effects of bathing in disease to the disease itself, without regarding the results of the various balneological procedures upon the normal body. The first portion of his book is devoted to this physiological study. The second portion deals with the technics of hydrotherapeutics, and the third with special hydrotherapy. Hot air and sand baths are included in the descriptions as germane to the principal subject. It is surprising to one who does not closely follow the so-called "natural methods of cure" to see how far the application of water in disease has been carried by its devotees. As our therapeutics becomes simpler, there is no doubt that measures which are easy of application, even though they may require special apparatus, will come more and more into general professional vogue. Although this is the work of an enthusiast, it is full of suggestive and valuable practical hints.

Practical Gynæcology. A Handbook of the Diseases of Women. By HEYWOOD SMITH, M. A., M. D. Oxon. Second Edition, revised and enlarged. London: Henry J. Glaisher, 1900. Pp. xxiv–230.

DR. SMITH'S book can not be regarded as a text-book, and it is almost too simple to be called a quiz-compend. Here we have gynæcological diagnosis and treatment reduced to its most primitive form, for in striving for brevity the author has sacrificed clearness and definition. The utter simplicity of the book may be inferred, for example, from his enumeration of the symptoms of extra-uterine gestation: "Those of pregnancy, with pain on the side to which the ovum is attached." The value to the student of such bald assertions as this can be seen without further remarks.

BOOKS, ETC., RECEIVED.

A Dictionary of Medicine and the Allied Sciences. Comprising the Pronunciation, Derivation, and Full Explanation of Medical, Pharmaceutical, Dental, and Veterinary Terms, together with much Collateral Descriptive Matter, Numerous Tables, etc. By Alexander Duane, M. D., Assistant Surgeon to the New York Ophthalmic and Aural Institute, etc. Third Edition, enlarged and thoroughly revised. With Eight Full-page Colored Plates. Philadelphia and New York: Lea Brothers & Co., 1900. Pp. xi–646.

Short Papers on Nursing Subjects. By L. L. Dock. New York: M. Louise Longeway, 1900. Pp. 57.

Transactions of the American Association of Obstetricians and Gynæcologists. Volume XII. For the Year 1899.

Acetic Acid as a Substitute for Ethyl Alcohol in Extracting the Active Principles of Some Officinal Drugs. By Edward R. Squibb, M. D., of Brooklyn. [Reprinted from the *American Journal of Pharmacy.*]

A Combination Sponge-graft and Artificial Globe Implantation of the Eyeball. By George F. Suker, M. D., of Toledo, Ohio. [Reprinted from the *Ophthalmic Record.*]

Further Remarks on Adeno-myoma of the Round Ligament. By Thomas S. Cullen, M. B. (Tor.), of Baltimore. [Reprinted from the *Johns Hopkins Hospital Bulletin.*]

A Rare Variety of Adeno-carcinoma of the Uterus. By Thomas S. Cullen, M. B. (Tor.). [Reprinted from the *Johns Hopkins Hospital Bulletin.*]

Miscellany.

The Anatomical Proof of Defloration.—Professor Albin Haberda (*Monatschrift für Geburtsh. u. Gynäk.*, Berlin, 1900, Bd. ii; *Edinburgh Medical Journal*, June) in this paper discusses the appearances presented by the hymen in cases of rape or criminal assault, which have come under his notice in his official capacity as medico-legal expert to the courts of Vienna.

The common opinion that the intact hymen is an almost certain sign of virginity, and that therefore an accurate conclusion can be drawn as to the virginity or defloration of a woman from an objective examination of her genital organs, Haberda strongly condemns, and shows, from a large number of instances, how often even after complete penetration in young children, as well as in mature women, no evidence of defloration may be present, the hymen remaining intact and uninjured. Many of the mistakes which are made by medical men, when asked to give an opinion in such cases, arise from ignorance of this fact, and from not being acquainted with the appearance presented by different varieties of hymen met with, and the form of its free border, as well as the normal size of the opening and extensibility of the tissues composing the hymen.

Objective signs of defloration may be absent after connection, from two causes: First, because, as a matter of fact, no lesion has resulted from the act; and, secondly, because (when the examination is delayed for some time) the injuries have become unrecognizable as such. Injury of the hymen may be absent after connection, owing to the peculiar form of the hymen preventing such a result; as, for example, in the (*gelappte*) lobulated (fimbriated) hymen, of which variety several cases came under the author's notice in young children, who had suffered complete penetration without injury. In other instances, it is less the form of the hymen than the original size of the opening, the extensibility of the tissues, and the resulting capacity for dilatation, which render possible the penetration of the penis, even of a full-grown man, without injury or rupture of the free margin of the hymen.

With reference to the distensibility of the hymen, Haberda found it to vary much, and in certain experiments which he performed post mortem he was able to pass glass cylinders of considerable size into the vagina without rupturing or injuring the parts in any way.

Thus, in a girl, aged fifteen years and six months, he passed a cylinder measuring 4.4 centimetres in breadth and 14.8 centimetres in circumference through the ring-shaped hymen without causing any rupture.

In forty cases of rape, in females varying from ten to twenty-eight years of age, in whom complete penetration took place, and, frequently, repeated acts of connection, Haberda found that about fifty per cent. showed no anatomical lesions or signs of defloration. In regard to the appearances which are found in hymens which have been injured during connection, and which may only be seen some time after the rupture has healed, the author warns us against the error of mistaking irregularities or natural fissures in the free margin for evidence of a former rupture. It is often difficult to give a definite opinion in such cases, but Haberda holds that a reliable sign of a healed rupture of the hymen is its complete division at one or more places, the edges of the cleft being distinctly separated, while at the base the vaginal wall is exposed, even though only to the slightest extent.

A Hospital for Tropical Diseases in England.—According to *Science* for July 13th, Mr. Alfred L. Jones, of Liverpool, head of the West African shipping firm of Elder, Dempster, & Co., has subscribed one thousand pounds toward the foundation in Liverpool of a hospital for tropical diseases in Liverpool. Among smaller donations, two sums of five hundred pounds each were made.

A Toe to Replace a Finger.—The *Clinical Review* for June says: "Here *is* something new—or at least novel. A German surgeon (Nicoladoni, of Graz) showed a case before the late German Surgical Congress in which, to restore a portion of finger that had been removed, the patient's large toe was amputated and affixed successfully to the finger stump, thus making a useful member again."

Erratum.—A more than usually flagrant instance of printer's error occurs in our issue for July 21st, page 125, left-hand column, lines 34–36. The passage in inverted commas should read "both in Tung Wah Hospital and Kennedytown Hospital for infectious diseases, wards are set aside where those who elect may receive native treatment."

The New York State Hospital for the Care of Crippled and Deformed Children.—We learn that, in ddition to those already announced, the following ap- ointments have been made to the consulting board: Dr. Samuel B. Ward and Dr. A. Vander Veer, of Al- any; Dr. Jarvis S. Wight and Dr. John A. McCorkle, f Brooklyn; and Dr. Richard B. Coutant, of Tarry- own.

The Mississippi Valley Medical Association.—At the ext annual meeting, to be held in Asheville, North Caro- ina, on Tuesday, Wednesday, and Thursday, October th, 10th, and 11th, under the presidency of Dr. Harold . Moyer, of Chicago, the address in medicine will be elivered by Dr. I. N. Love, of St. Louis, and the ad- ress in surgery by Dr. Charles A. Wheaton, of St. aul. The association will not be divided into sections. he sessions will be held in the Battery Park Hotel.

The New Jersey State License.—The following is a nopsis of the requirements for license to practise edicine and surgery in the State of New Jersey:

1. The applicant's name, address, and place and te of birth, showing that he or she is over twenty-one ars of age.

2. Certificates of moral character from not fewer an two physicians in good standing, one of whom ust be a resident of New Jersey.

3. A certificate of academic education must be pre- nted with each application for examination. (1) raduates in arts, sciences, philosophy, dentistry, phar- acy, or veterinary medicine, from accredited colleges, graduates from a high school or academy, must fur- sh a certificate of graduation from the institution tended; (2) applicants not graduates as above speci- d must furnish a certificate, made upon a blank form ovided by this board, duly attested, showing that eir academic education is substantially the same as course of instruction in the public high and manual ining schools of this State, or what this board may sider as meeting its requirements. (3) Candidates able to furnish an academic certificate may take a cial examination before the State Superintendent of blic Instruction for New Jersey, whose certificate is epted by this board.

4. Candidates must have received a diploma con- ring the degree of doctor of medicine from some ally incorporated medical college (which in the opin- of this board was in good standing at the time of ing said diploma) in the United States, or a diploma license conferring *the full right* to practise all the nches of medicine and surgery in some foreign ntry, and have also studied medicine *four years,* luding *three courses* of lectures in different years in e legally incorporated American or foreign medical college or colleges *prior to* the granting of said diplomas or foreign license; provided, however, that two courses of medical lectures both of which shall be either begun or completed within the same calendar year shall not be considered to satisfy these requirements. Graduates of foreign institutions must file, with their applications, a certified copy, with translation, of their academic and medical diplomas, made by and under the seal of their respective consuls general, showing that they possess the full right to practise medicine in all its branches in the country in which the diploma was issued, and the applicant must make affidavit that he is the person named therein.

Exemption: Evidence of one year's service as a member of the resident medical staff of any legally incorporated, charitable or municipal hospital or asylum, or of five or more years of reputable practice of medicine and surgery, may be accepted as equivalent to one year's study of medicine and surgery. A certificate of exemption, duly attested, must be filed with the application when required.

5. The regular examinations of the board are held in the State House at Trenton, on the third Tuesday and Wednesday in June and September. Application for the proper blank form for the June examination should be made early in May, and for the September examination in the latter part of July.

6. Candidates for examination should apply to the secretary of this board for a blank form of application, which must be filled out in accordance with the printed instructions of the blank, bear the seal of the medical institution from which the applicant was graduated, and be returned to the secretary for approval and filing, with a certificate of academic education and a certified check, signed by or payable to the order of the applicant, or a postal money order, for twenty-five dollars, the regular examination fee, at least ten days before the date of the examination. After the examination, the application forms, with examination questions, papers, averages, and academic certificates, will be filed permanently in the State Library at Trenton. Neither academic nor medical diplomas should be sent to the secretary, unless requested. The fee will be returned to candidates failing to pass the examination.

7. All examinations shall be written in the English language, and the questions shall be, except in materia medica and therapeutics, such as can be answered in common by all schools of practice. If the applicant intends to practise homœopathy or eclecticism, the members of said board of those schools respectively shall examine said applicant in the materia medica and therapeutics of the school in which such applicant intends to practise; the examinations shall be in the following subjects, namely: (Sec. 1) materia medica and therapeutics; (Sec. 2) obstetrics and gynæcology; (Sec. 3) practice of medicine, including diseases of the skin, nose, and throat; (Sec. 4) surgery, including surgical anatomy and diseases of the eye, ear, and genito-urinary organs; (Sec. 5) anatomy; (Sec. 6) physiology; (Sec. 7) chemistry; (Sec. 8) histology, pathology, and bacteriology; (Sec. 9) hygiene and medical jurisprudence. Two hours are given to each section, in which ten questions are submitted. A general average of seventy-five per cent. must be attained.

8. The license of any State board of medical examiners in the United States will be indorsed by this board, in lieu of an examination, *provided:* First, that the candidate for indorsement shall present satisfactory

evidence of having the academic and medical education required by this board; and, second, that the license presented for indorsement shall have been issued after a State examination of the same grade and kind as that required by this board. The indorsement of a college diploma is not accepted in lieu of an examination. Blanks for indorsement must be obtained from the secretary.

9. A temporary license may be granted to a legally qualified physician of another State to take charge of the practice of a legally qualified physician of this State, temporarily, during the latter's absence from this State, upon written request on the blank form of this board and the payment of the regular fee of two dollars. This license covers a period of not less than two weeks nor more than four months. A temporary license will not be granted under any other conditions.

10. All persons commencing the practice of medicine or surgery, in any of their branches, or of midwifery, in New Jersey, must obtain a license from this board, either through examination or indorsement, which license, or a certified copy thereof, must be filed with the clerk of the county in which the applicant intends to practise. Applicants moving from one county to another must file a certified copy of their license with the clerk of the county to which they move; duplicate certified copies may be obtained from the secretary of this board by forwarding the original license with the fee of two dollars.

Applicants, whether for examination or indorsement, must not begin the practice of medicine in this State until they have received a certificate of license from this board and have duly filed a copy of the same.

All communications should be addressed to the secretary, Dr. E. L. B. Godfrey, Camden, New Jersey.

An Old-time View of the Prevention of Small-pox.—*Janus* for July 15th cites the following on the authority of the *Centre médical:* The parish registers of Vic-de-Chassenay contain the following extract about the prophylactic treatment of small-pox. "22 October, 1778: Several doctors have stated that midwives should take the precaution of squeezing the umbilical cord between their fingers before they tie it. This empties it of the blood which would otherwise remain between the ligature and the navel where it would putrefy and then being returned to the blood-vessels carries thither the small-pox germ. They assert that by this means one would always be free from small-pox. I have therefore advised the midwife to adopt this practice and she has promised to do so. Frances Héliot is the first to be submitted to the test, and I have thought it right to note this event in the registers for future reference if it should be necessary. Signed Champagne, Curé."

The Saline as a Cause of Cacoethes Scribendi.—The *Interstate Medical Journal* for June says that in a lecture on the treatment of chronic constipation, in which he advocated the more general and persevering use of simple aperients, more especially those of the saline class, Dr. Cheadle quoted from a tombstone in Cheltenham Parish churchyard the following lines:

"Here lies I and my two daughters,
Killed by drinking Cheltenham waters;
If we had stuck to Epsom salts,
We shouldn't have been lying in these here vaults."

Dr. Cheadle refused to indorse this severe indictment of the Cheltenham waters; but suggested that the last two lines might, with a slight alteration, serve as a suitable epitaph in certain instances. The form he recommended for the cases to which he referred was:

If I had had more Epsom salts,
I shouldn't be lying in these here vaults.

The same doctrine, says the *Journal,* had an unconscious supporter in the little girl who, in repeating some well-known lines from Pope, produced the couplet:

"A little knowledge is a dangerous thing,
Drink deep or taste not the *aperient* spring."

A Remarkable Case of Seeming Maternal Impression.—Dr. P. B. McCutcheon (*Interstate Medical Journal,* June) records the following remarkable case:

A newly married woman, brunette, and her husband, who is also a brunette, went to a museum where they saw a male albino, which interested them both very much; in fact, made an *impression* upon them. They thought a great deal of him and often spoke of him to their friends. About one month later the woman became pregnant (she insists that she was not pregnant when she saw the albino) and in the eighth month of pregnancy she was delivered of a girl with black hair and eyes. It was stillborn, due, as the mother believes, to her carrying a heavy bundle. Nothing remarkable in this, but let us continue to follow up the developments as they occur. Eleven months later a well-developed boy is born whose *hair is white and eyes are pink—a perfect albino* like the man they had seen in the museum. This child lived until he was seventeen months old, when he died from "teething." The third child is another boy, who, like the first one, has black hair, but blue eyes. He lived thirteen months and died from the effects of being scalded with hot milk. The fourth child, a girl, a perfect albino, lived a few minutes; death was due to slow delivery, as she presented by the breech. The fifth child was an anencephalous albino boy, stillborn, breech presentation. The sixth child was also an anencephalous albino girl; she lived a few minutes. The seventh, a boy with black hair and eyes, was well developed and lived two months. Death was due to colic. The eighth, an albino boy, lived a few minutes. The ninth, an albino girl, lived three months. This child also died of colic. The tenth, an albino girl, lived one year. Most probably death was due to congestion of the lungs. The eleventh, an albino girl, was born on March 20, 1900, and is still alive April 21st. Thus it would seem that an impression made upon a *non-pregnant* woman caused defects (bodily) in her eight subsequent, but not successive, pregnancies, for we see that the first, third, and seventh children are without defects, and that there have been born to this couple during the past fifteen years eleven children—five boys and six girls—of whom eight, five girls and three boys, were albinos. Three, two boys and one girl, had black hair and eyes. There were also four anencephalous children. All the children have died except one (now one month old). The longest time that any one lived was seventeen months. The father is now forty-three and the mother thirty-nine years old, so that their child-bearing period is not yet closed, and this same impression may manifest itself upon children still to be born. The author delivered the fifth, sixth, and eleventh children, and can therefore vouch for the accuracy of their condition, and has no reason to doubt the statements made by the parents about the others and the cause which they believe produced them.

THE NEW YORK MEDICAL JOURNAL, August 4, 1900.

Original Communications.

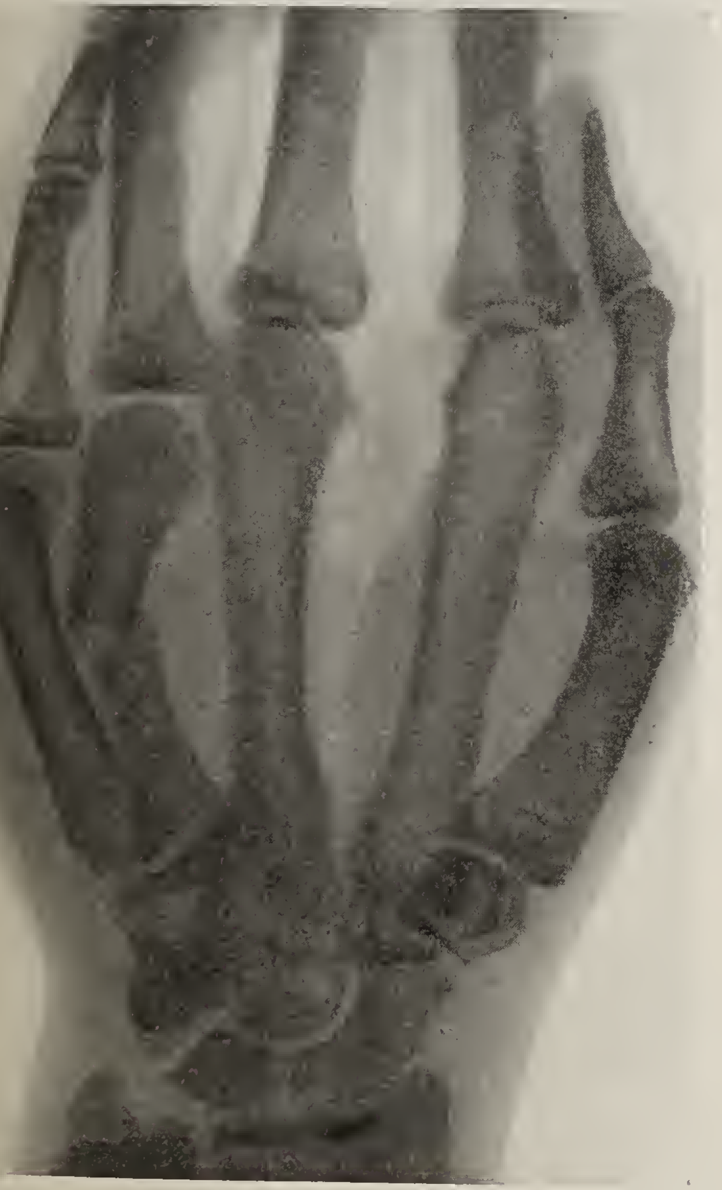
ON THE TREATMENT OF METACARPAL FRACTURE.

By CARL BECK, M. D.,

NEW YORK.

Since the Röntgen rays revealed the true nature of many lesions heretofore unrecognized or misinterpreted, the old dictum of the rarity of fracture of the metacarpal bones has also been shaken. There can now be no more doubt that a large number of alleged dislocations and contusions of the metacarpus were, in fact, either complete fractures in adults or separations of the epiphyses in children.

In most cases, displacement of the fragments being absent, and the other metacarpal bones serving to a certain extent as splints, it is natural that the results in these cases were nearly always good, no matter what treatment was employed; the *post hoc, ergo propter hoc,* being enough for the superficial observer. If, however, he had used the Röntgen rays, he would have een not a little surprised to find, in such a case, the vidence of a fracture; while at the same time he could ongratulate himself that in spite of his treatment for imple contusion the result was so perfect.



IG. 1.—Fracture of the fourth metacarpal bone, showing considerable sideward displacement. Skiagraphed one day after the injury.

In the event of displacement the result would be somewhat different. If the displacement is in the dorsal direction, it is not only easily recognized, but also reduced and kept in place without difficulty by coaptation splints. But if the displacement, as it often occurs, is sideways, the result may be very unsatisfactory, the remaining deformity and disturbance of function being considerable. If a common laborer is concerned, but little inconvenience may be caused by it; but if a person whose hands must do delicate work, like a musician, watchmaker, cabinetmaker, or, last but not least, a physician, for instance, is the victim, badly united metacarpal fragments of the right hand may seriously interfere with his professional work.

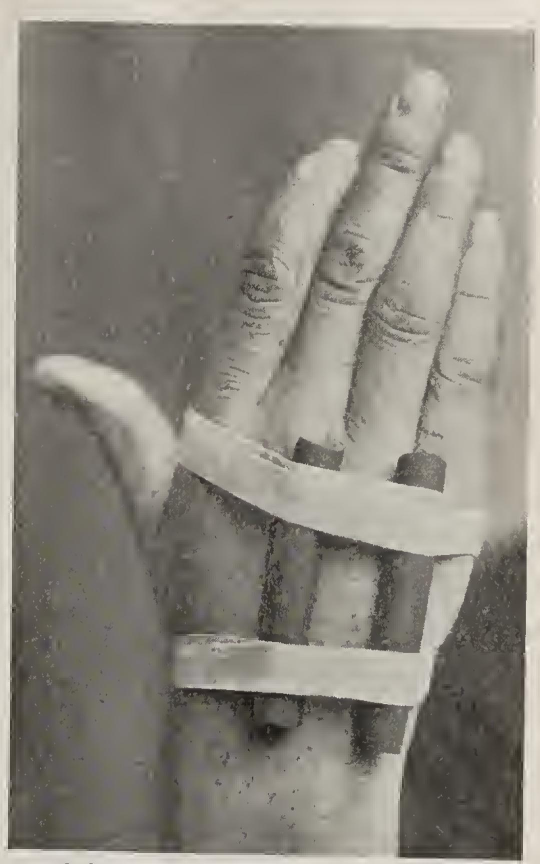


Fig. 2.—Fracture of the fourth metacarpal bone, showing the rubber-tube splints in place.

Reduction of the displaced fragments never offers any insurmountable obstacles; but to hold them in place is a far more complicated task, and the recurrence of the displacement under the usual immobilizing methods shows their insufficiency in the end.

The question now is, What is to be our guide in estimating the value of a given immobilizing method *before* consolidation has taken place? In former years we used to judge the value of one or another method by the final result. But now, just as we estimate the value of a germ-destroying method first of all by bacteriological experiment, so we are able to judge by irradiation at the very beginning. If the immobilizing dressing is perfect, the formerly displaced fragments must be found in exact apposition, when skiagraphed through the dressing. Various experiments showed me that the metacarpal fragments are invariably held in place by elastic pressure. For this purpose two rubber drainage tubes of moderate size are chosen, which are lightly pressed into the adjoining interosseous spaces, so that they fill them up to a certain extent. They are kept *in situ* by adhesive-plaster strips (Fig. 1). Thus the recurrence of the displacement is prohibited. The whole is surrounded then by a moss splint, a material which, after being dipped in cold water, adapts itself to the contours of the hand like a plaster-of-Paris splint, over which it possesses the great advantages of being absorbent and much lighter.

In the case of a young Italian, who sustained fracture of the fourth metacarpal bone in its middle as a result of direct violence (he struck his brother in the face with his fist), considerable lateral displacement was produced (Fig. 2). Reposition was easily accomplished and the fracture area was carefully surrounded by narrow pads which were supported by adhesive plaster. A long palmar extension splint was then applied.

There was no swelling of the fingers nor any sign of discomfort. But when examining the metacarpus two weeks later with a view to leaving the splints off, I found that the fragments had slipped by each other again. I then seriously considered other means of immobilization. After filling up the interosseous grooves between the fourth metacarpal bone and the little finger on one side and the third one on the other with two rubber drainage tubes, I took a skiagraph, which showed the fragments in ideal apposition (Fig. 3). Shortly afterward I removed the rubber tubes, and then the displacement recurred at once (Fig. 4). From this we also learn that it is unwise to rely upon the old dictum that metacarpal fractures show perfect consolidation after three weeks. We should consult the Röntgen rays before satisfying ourselves as to the question of impeccable union.

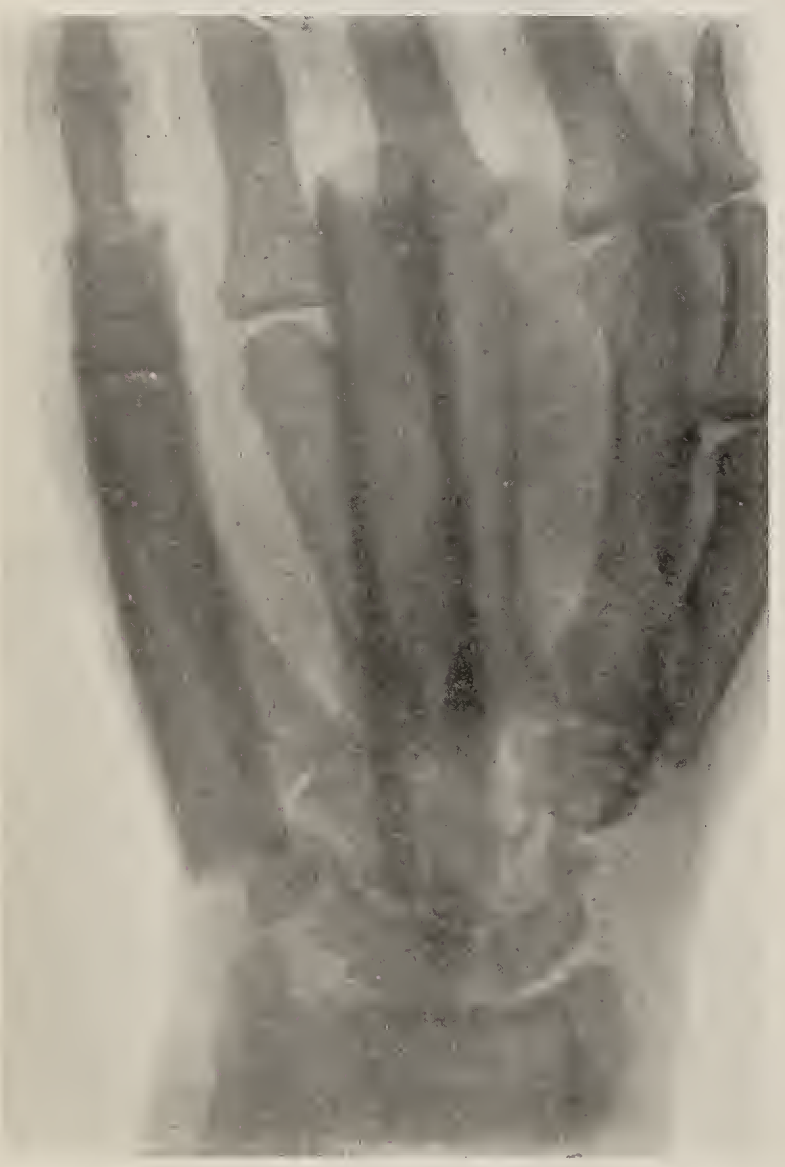


Fig. 3.—Showing exact apposition of fragments of fourth metacarpal bone.

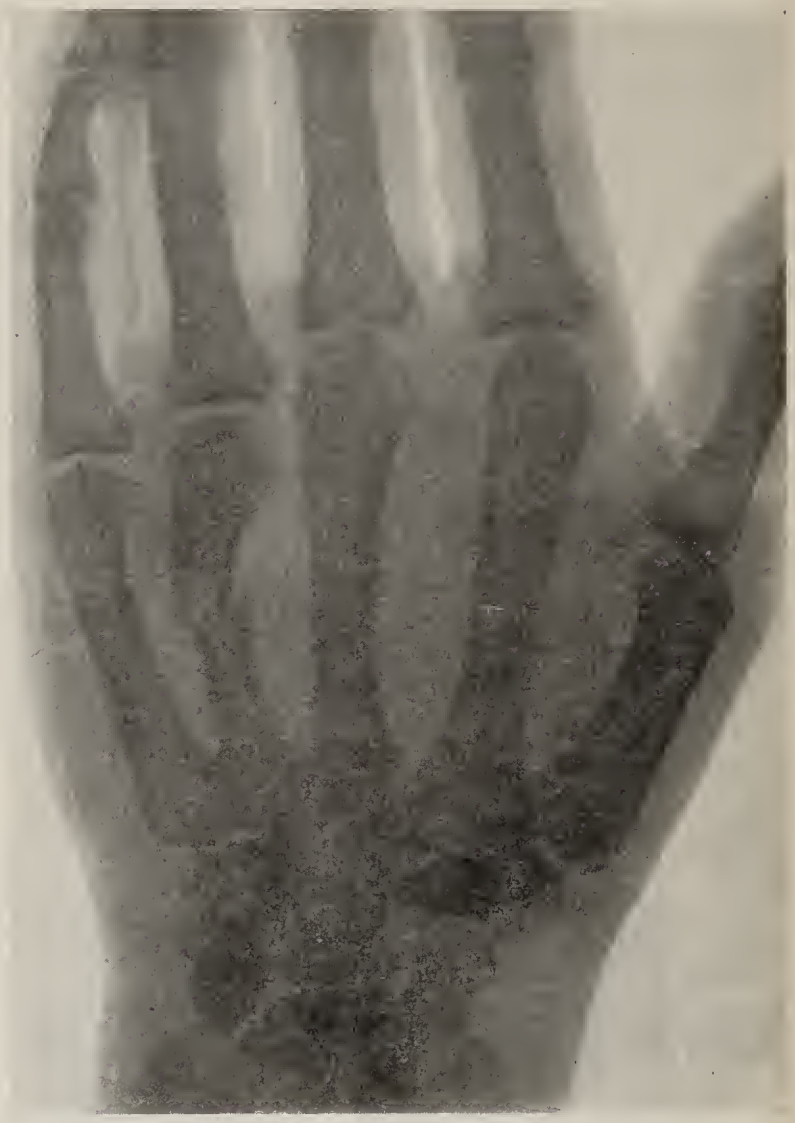


Fig. 4 (taken five minutes after Fig. 3).—The fragments, which show in perfect apposition in Fig. 3, as held in situ by rubber tubes, slipped by each other as soon as the tubes were removed.

THE PRESENT STATE OF THE GALVANO-CAUSTIC OPERATION OF BOTTINI FOR ISCHURIA.

By GRANVILLE MacGOWAN, M. D.,
PROFESSOR OF GENITO-URINARY SURGERY, DERMATOLOGY, AND SYPHILIS IN THE UNIVERSITY OF SOUTHERN CALIFORNIA, LOS ANGELES, CAL.

(*Concluded from page 58.*)

Case III. *October 15, 1899.*—J. B., an ignorant and feeble colored man, aged sixty, laborer. Admitted to Los Angeles County Hospital with retention. He has had some urinary frequency and difficulty in urination, worse at night, for a long time. His urine contains a few blood cells, crystals of triple phosphates, and abundant bacteria, probably from catheter infection, as he had been catheterized for a number of days before coming to the hospital.

Examination made under local anæsthesia with cocaine, two per cent., antipyrine, ten per cent. External genital organs normal. Soft stricture, No. 16 F., in phallic urethra. Right and left lobes of the prostate enlarged into the urethra and into the bladder. No stone.

Rectal examination confirmed that made by stone sound in the bladder, the lateral lobes extending far out along the pelvic bones on each side. The bladder was easily reached in the centre, the middle of the prostate being deeply grooved.

Treatment.—Rest in bed, with use of catheter every six hours. The bladder was washed daily with hot borosalicylic solution, and he was given urotropine internally and the stricture dilated with steel sounds every second day up to 26 F. until October 24th, when he could urinate naturally, but had two ounces of residual urine.

October 31st.—Examination of urine drawn by cathether, after centrifuging: No albumin or sugar. Urea nearly normal. Microscopically, a few blood and pus cells, but no casts or small epithelial cells. Reaction acid. Quantity for twenty-four hours slightly increased.

November 1st, 10.30 A. M.—Cystoscopic examination. Light rays entirely absorbed on the superior right quadrant, and the image very indistinct upon the left. The appearance caused me to remark to the medical class that probably adhesions of the prevesical fold of the peritonæum to the bladder on the right side existed, for I have noticed a number of times, when I have examined the bladder with the cystoscope previous to *sectio alta,* that where there was absorption of the light rays on the superior surface such adhesions were invariably present. Unfortunately, I did not heed the warning when I came to operate. The trigonum and the right and left lower quadrants were markedly trabeculated. The interureteral folds were very marked and very red; the anterior bladder wall was congested. The prostatic image on the floor, on both sides and above, showed marked enlargement of the gland into the bladder. The frequency of the patient had been only every three hours, but the bladder image was one of decided general cystitis.

About 10.45 A. M., under general anæsthesia, which the patient insisted upon, I did a Bottini operation upon him, burning the lower and two lateral grooves of the conventional length. Unluckily, forgetting the cystoscopic image of the roof of the bladder, and influenced by the writings of Meyer, Freudenberg, and Guitéras, I made the superior burn also. I carefully hooked the beak of the instrument, as I supposed, in the superior portion of the vesical neck, turned on fifty ampères, and drew the blade forward slowly for two centimetres. There was a peculiar loud sizzling sound like that made by the frying of fat, or by the hot iron as it is dipped in the smith's tub. This was heard plainly by my assistants and nurses, and I conjectured what had happened. He was given a quart of saline infusion by hypodermoclysis, put to bed, and catheterized every four hours, though he passed some urine voluntarily and without aid.

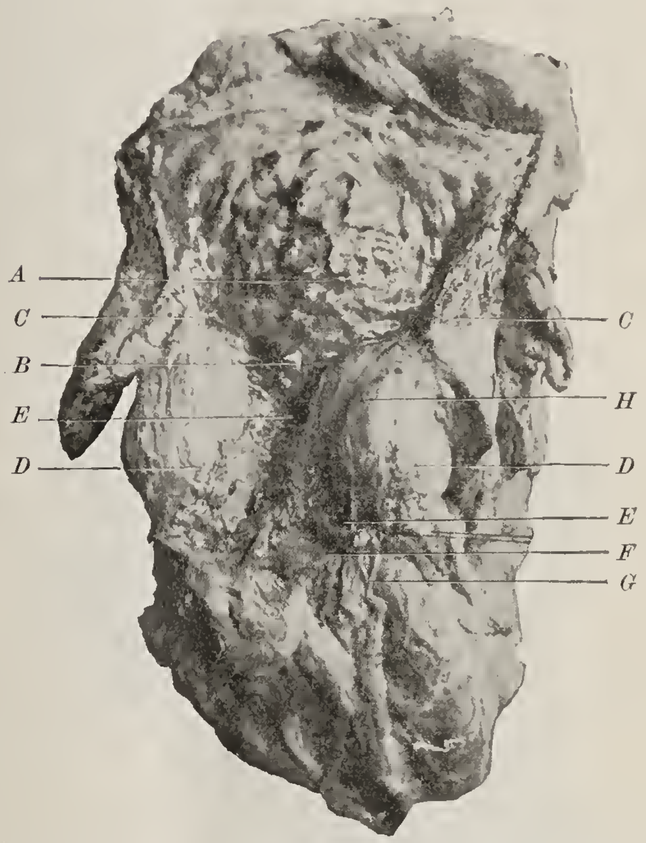
The following day he felt perfectly well, other than that he complained of a burning in the urethra. He had no rise of temperature and no increased frequency of the pulse.

3d.—During the early morning hours he complained bitterly of pain in the lower part of the abdomen; this increased during the day. He became restless and would not remain in bed. He died at 6 A. M., November 4th.

The post-mortem showed adhesions of the intestines upon the right side to the superior surface of the bladder, the appendix being attached to it by firm bands posteriorly down into the *cul-de-sac.* The right side of the bladder was thus rendered immovable. Commencing near the middle of the dome and extending forward to the pubic arch was a hole three centimetres long with perfectly charred edges, from which some *débris,* consisting of burned tissue mixed with pus and urine, had exuded into the surrounding cellular tissue.

Examination of the bladder internally showed intense inflammation of the mucous membrane, particularly in the trigone, about the neck of the bladder, and on the right superior segment. The ureteral mouths were pouting and scarlet. The burn through the middle lobe posteriorly was made a little to the right of the centre; its lowest portion was a centimetre and a half below the former floor of the urethra.

This incision left a deep groove the full three centimetres and a half in length. At the upper extremity the burn extends nearly through the interureteral fold, but the papillæ of the ureteral mouths are still seen a centimetre above the floor of the pocket back of the bar at the outlet of the bladder, of which this fold forms a part. This condition probably explains why the Bottini operation is at times unsuccessful in removing all of the residual urine when the obstruction is median and an apparently full incision has been made, for, while the bottom of the groove in the prostatic urethra is a centimetre and a half below the floor of the urethra, at the obstruction inside of the bladder it is but a centimetre below, and in order to reach the lowest level of the bladder at this point it would be necessary to burn a groove through the interureteral fold and a centimetre deeper.



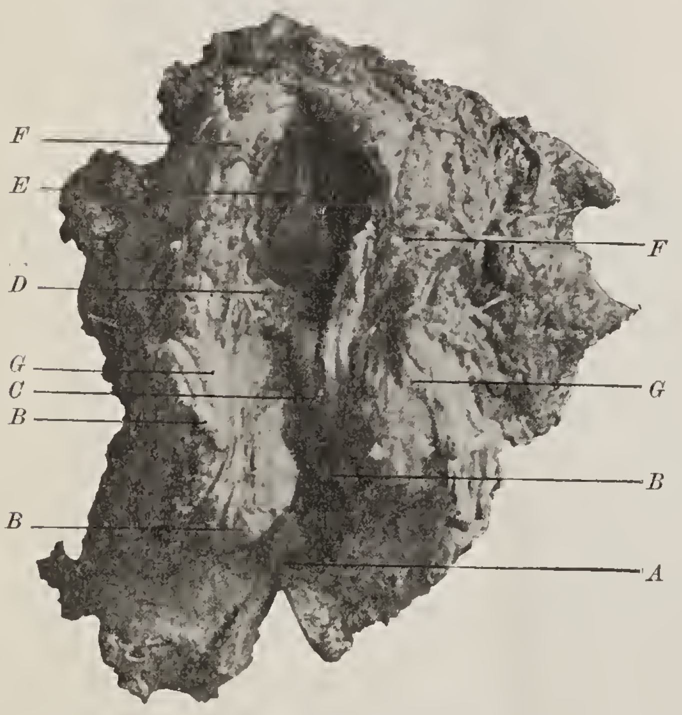
CASE III.—*A.* Cavity of bladder. *B.* Mouth of right ureter. *C.* Burn through superior bladder wall. *D.* Burn through prostate at angle of 90°. *E.* Burn through prostate posteriorly. *F.* End of prostatic urethra. *G.* Rectum with surrounding tissues. *H.* Part of original floor of urethra.

The lateral burns were made at the angle recommended usually—that of forty-five degrees. The results are shown very well in the photograph. I can not see how, in the event of the recovery of this man, they could, in any measure, have contributed to the success of the operation, for they are so much above the level of the floor of the bladder. This specimen illustrates very well that the present battery marketed by the Kny-Scheerer Company will heat the cautery all right when the bladder is filled with water, and that the anxiety of Bransford Lewis upon this point, while very applicable to the old style of storage battery, with which all of Morton's and the first series of Meyer's experiences were conducted, and which I used in my investigations of the operation upon the cadaver, is unnecessary for the present one.

Result of operation, death.

CASE IV. *October 24, 1899.*—Thomas B., laborer, Irish, seventy-six years of age. Prostatic for a number of years. The obstruction has been at times during the past four or five years complete, requiring the use of the catheter. He is now suffering from dysuria. His frequency is fifteen to twenty times during the day, and ten to fifteen times during the night. Urine acid; contains blood, pus, waxy and granular casts, and abundant bacteria. He refuses the aid of vasectomy or castration, or any cutting operation. There is a soft stricture, calibre 20 F., in the bulb. Prostate, by rectal examination, enlarged and very hard. The middle and left lobes seem to be more greatly enlarged than the right lobe.

He consented to the Bottini, which was done on the same day as the preceding case. Cystoscopic examination, which preceded the operation, showed a trabeculated bladder with the right ureteral mouth greatly enlarged. The urethra was rapidly dilated to 29 F. and the Bottini instrument, after a great deal of difficulty, introduced into the bladder. I was gentle about this, but the man was old and the urethral tissues degenerated, and I feared at the time that I had ruptured the urethra, though there was but little hæmorrhage. Two grooves were burned in the prostate—one posteriorly three centimetres long, and one through the right lobe two centimetres and a half long. The battery gave out before the third groove could be burned.



CASE IV. *A.* Dilated membranous urethra. *B.* Cancerous nodules in prostate. *C.* Healed groove from Bottini operation. *D.* Right ureteral mouth. *E.* Cavity of bladder. *F.* Hypertrophied bladder walls. *G.* Lateral and superior parts of prostate.

The patient did very well until November 4th, passing his water at frequent intervals voluntarily. On this date, the chief nurse noticed what he supposed to be a swelling of the left testicle. I was ill at the time and did not see the patient until the afternoon of November 6th, when I found a very large perineal abscess, which I immediately opened.

The drain of this was too much for the old man, and he finally died on the 29th from exhaustion. The perineal wound had almost healed.

Post-mortem.—The bladder was found to be very small, and had very thick walls. The wounds of the Bottini were perfectly cicatrized, and the bottom one had left a marked groove extending inside almost to the bottom of the bladder, commencing about an inch in front of the ureters, as may be seen in the accompanying illustration. The prostate was carcinomatous, and the enlargement was greatest on the right side, was interurethral, and extended forward to the triangular ligament, illustrating most excellently that the knowledge obtained of the character and extent of prostatic enlargement by rectal examination alone is sometimes fallacious. The urethra immediately in front of it was dilated into a large sac, which would hold a small-sized walnut. The kidneys were cirrhotic. Cancer was not found elsewhere in the body.

Result.—Perfect bladder drainage established through a cancerous prostate. Death from perineal abscess.

CASE V. *October 13, 1899.*—Patient of Dr. E. R. Smith, of Los Angeles. P. T., Italian, fifty-five years of age, merchant. Residence, Mexico; married.

History.—Gonorrhœa twenty years ago, and ever since has had increased frequency of urination with occasional tenesmus. There has been urethral discharge with attacks of cystitis at irregular intervals, and they have become more frequent as he has grown older. During these attacks the urine has been extremely purulent. The treatment received in Mexico was without benefit, so he came to California.

May, 1899.—*Sectio alta* by his attending physician under the belief that he had stone. The bladder was explored by the finger and reported smooth; no stone or tumor felt. The condition of the prostate was not specially noted. Drainage suprapubically until the middle of August, when the urine became clear and the pain ceased. The tube was then removed, but the wound never closed perfectly and has leaked. The leakage annoyed the patient and his physician very much. It was thought that he might have some prostatic obstruction which, if removed, would allow the fistulous tract to close, so he was brought to me for examination, and operation if necessary. I found the left side of the prostate moderately enlarged and very hard. The enlargement was chiefly interureteral. The prostatic urethra was lengthened one half. A No. 18 F. soft-rubber catheter could be easily passed to the bladder, but a No. 23 F. steel sound was passed with difficulty through the prostatic urethra, the handle being deflected decidedly to the left. The bladder could be easily cleansed by fluid introduced rapidly by a hand syringe through the catheter.

Diagnosis.—Pyelitis and prostatic obstruction. The persons most interested desired a Bottini and I did the operation October 23d, under general anæsthesia, which was the choice of the patient, the bladder being filled with borosalicylic solution. Two grooves were burned, one posterior and one through the enlargement of the left lobe. A retention catheter was used for the first twenty-four hours, and for several days in the second week he had to use the catheter regularly. There was increased frequency until the separation of the charred tissues was entirely finished, which was about the twenty-fifth day. The fistula then closed, and did not reopen. He returned to Mexico early in December, and was able to attend to business.

Result.—To April, 1900, there had been no return of the fistula.

Case VI.—S. D. C., aged sixty-nine. Patient of Dr. E. C. Buell, of Los Angeles. First suffered from retention four years and a half ago. Has led a catheter life for a little less than four years. During this time has suffered several times from uræmia, and once was confined to his bed for nearly six months. He is anæmic and not very strong.

Examination. — External genital organs normal. Urethra irritable. Stricture No. 22 F. in phallic urethra. No. 16 F. soft-rubber catheter passes to bladder, but has to be coaxed through the bulbar and membranous portions of the urethra on account of severe spasm of perineal muscles. He has to catheterize himself every three or four hours, and says he has the same difficulty in setting the catheter each time. The urine trickles out through the catheter, and the bladder does not possess sufficient expulsive force to project the stream an inch away from the mouth of the tube. In washing the bladder, the organ has to be assisted to empty itself by steady pressure of the hand upon the abdomen. A smaller soft-rubber catheter does not enter more readily, but a silk 16 F. Mercier coudé enters very easily. Bladder capacity, eight ounces. Urine slightly acid, and, after centrifuging the supernatant fluid, showed the presence of a small quantity of albumin. The sediment, examined microscopically, contained pus, blood, micrococci, and epithelial cells.

Examination with the stone searcher showed enlargement of the prostate into the bladder on both sides, with a considerable enlargement of the middle lobe. No stone.

Rectal Examination.—External and internal hæmorrhoids. Prostate greatly enlarged, the centre grooved, but at the upper portion of the groove a hard mass could be felt through the bladder wall. The right and left lobes both enlarged, the right more so. This enlargement is glandular. The rectum and perineal tissues move freely over the tumors, and they could easily be removed by the Nichol or the Alexander method. Both seminal vesicles can be felt and seem to be healthy. He wished a radical operation, and was given his choice of prostatectomy or the Bottini. He had previously considered the mutilating sexual operations and turned them down. He chose the Bottini.

January 4, 1900.—Operation under local anæsthesia, using a solution of three-per-cent. cocaine with ten-per-cent. antipyrine, which was kept in the bladder and urethra for ten minutes. The anæsthesia was perfect. Bladder was filled with eight ounces of borosalicylic solution, and a posterior cut three centimetres and a half made in two minutes and a half. Strength of electric current, fifty ampères. Very slight hæmorrhage, just enough to stain the water used for washing the bladder. He walked from the operating table to his room and remained in bed for three days. There was no rise of temperature. The difficulty in the introduction of the catheter did not lessen until January 9th, when he noticed that the resistance and frequency became less.

On the 19th he slept all night, something he had not done for years, and on the 21st passed two ounces of urine in the morning, and the same quantity in the afternoon and at bedtime.

On the 21st he passed four ounces voluntarily several times during the day.

On the 30th he succeeded in passing voluntarily, at three intervals of twenty minutes each, twelve ounces of urine, and a half hour afterward withdrew four ounces of urine by the catheter.

The urine was at this time full of blood, pus, and charred prostatic tissue, but, so far as I can learn, he did not pass any large slough. The urine was alkaline for a few days.

On February 10, 1900, his condition was much the same; the prostate seemed softer and a little smaller than previous to the operation, but I am not sure but that may be imagination on my part.

April 12th.—When not fatigued, he now passes a fair stream which at times is projected from a foot to eighteen inches from his body. When tired, or suffering from a cold, the expulsive force is much less. The bladder capacity is now about twelve ounces. He still has from two to three ounces of residual urine. Under the continued use of cystogen the urine has become clear and acid.

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APPENDICITIS: WHEN TO OPERATE.

By J. H. CARSTENS, M. D.,

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"OPERATE when the diagnosis is made," say all experienced surgeons, and I could stop right here with my paper and say no more; that covers the ground.

"When the diagnosis is made," I say. "But to make the diagnosis is very difficult," some of my friends reply; and still it seems to me that it is not so very difficult. It is remarkable how physicians are now able to diagnosticate appendicitis, but could not do it a few years ago.

After we have been writing and speaking *ad nauseam* about appendicitis, many who formerly thought it a very rare disease now find that it is quite common. After we have repeatedly called attention to the point that in *every case of abdominal trouble* you should look to the appendix as its possible source, the diagnosis is often made.

It is astonishing how frequently this has been verified, and men who formerly pooh-poohed the idea now admit that there is something in it. The diagnosis is not very difficult, although there are rare and obscure cases.

When a patient has a pain in the right iliac region, do not diagnosticate it as typhoid fever, because the pain in that region does not come on suddenly as in appendicitis, nor is the fever high in typhoid during the first week or during the second. By the time that ulceration of the Peyer's patches has taken place the patient has pain and has been sick for ten days or more, and there is usually a diarrhœa. I have seen many cases of appendicitis diagnosticated as typhoid fever. The onset of appendicitis is sudden, that of typhoid fever gradual.

When a person in good health is suddenly taken with severe pain in the right side of the abdomen, do not consider it to be due to renal calculus if it is accompanied by fever. Kidney stones produce pain, but not fever until possibly later.

If you have a woman suddenly complaining of pain in this region, do not consider it due to disease of the tube or ovary, because the latter does not occur suddenly and is preceded by other symptoms, such as dysmenorrhœa or vaginal discharges, or follows injuries, abortion or labor. The pain in the pelvic organs is deeper seated and lies below the ileo-peritoneal line.

As a result of indiscretion in eating or of poisonous foods you may have a sudden onset of abdominal pain, but the history of the case should clear the diagnosis, and then the symptoms vary. Such cases commonly subside within twenty-four hours.

The sudden acute pain of cholera morbus with intense vomiting and retching can generally be diagnosticated promptly. Certainly all symptoms, as a rule, subside in the course of a day.

Malignant growths of various kinds quite often produce no symptoms at all, although they may have existed for months; they may gradually cause a contraction of the bowels, and then in a few days complete closure takes place, resulting in symptoms of obstruction of the bowels. These are deceptive cases, but as no fever occurs and they are very rare a mistake will not often be made.

Gallstone has been the diagnosis in many cases of appendicitis. But in the former we find no fever as a rule, and they are accompanied by more or less jaundice; moreover, by careful palpation the pain can be localized near the gall bladder or duct and not near the appendix.

Extra-uterine-pregnancy produces symptoms simulating appendicitis, but in the former you have no fever, but a progressively increasing pulse-rate, and a continual faintness which, with the blanching of the skin, is so characteristic of internal hæmorrhage that an error in diagnosis should rarely be made.

Movable kidneys produce pain simulating appendicitis, and here also we have no fever, but by careful palpation the loose kidney can be made out. There is no rigidity of the right rectus muscle nor is the pain so acute, unless twisting of the ureter takes place.

If there is one trouble that is difficult to diagnose, it is hysteria. The protean manifestations of this most peculiar nervous condition are very difficult to unravel. A hysterical female who has heard or read of appendicitis is very liable to deceive; even here the temperature will not help us, and it is by the most careful study alone that we are able to make a correct diagnosis. By diverting the mind, we shall find how the muscular rigidity suddenly stops. The tenderness disappears, and very considerable pressure may be made in the region of the appendix without complaint. We can never do this in the case of the genuine article.

The fever and pulse in appendicitis vary so much that we are often deceived in our prognosis, but the diagnosis we should certainly make. When the infection is limited to the *Bacillus coli communis* the temperature is low. With mixed infection, that is, with staphylococcus, the fever is high and the pulse rapid; add to this streptococci and the onset is most violent, the so-called "fulminating" variety.

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*A paper read before the Michigan State Medical Society, Mackinaw, July 12, 1900.

If we bear in mind that in most cases the patient first complains of pain in the region of the stomach with more or less nausea, and has a high temperature, but notice that, as often happens in such cases, the pain in the region of the stomach and the nausea subside within twenty-four hours, and that the only soreness complained of is in the region of the appendix (always assuming that opium has not been given), then we shall not make a mistake very often in diagnosticating appendicitis.

It is not necessary to mention palpation of the appendix, which can be done in but few acute cases, as the muscular rigidity will prevent it.

Really, gentlemen, the diagnosis is easy if you only try to make it. On making the diagnosis, then, is the time to operate; that is the rule.

Is it always so? I believe that there are rare exceptions; if the environments of the patients are such that neither the operation nor the after treatment can be properly carried out, you had better not operate.

If it is the *first* attack and apparently mild, with a declining pulse rate and temperature, then you might be justified in watching the case for another twelve or twenty-four hours, and if the improvement continues, in letting the case alone, and operating at the next attack.

If, however, the patient has had one or more attacks, no matter how mild, then I insist on an operation, be the symptoms ever so light:

First, because you do not know how severe the case may be in forty-eight hours; and

Secondly, because the patient is sure to have more attacks and will have to undergo operation anyway, so the sooner this is done the better for the patient and the relatives. This is all the more so as the danger of an operation is virtually nothing. If the attack is very mild and the environments are not good, or the patient is away from home, stopping at a hotel, for instance, then also I think you may let the case alone, but should insist on a prompt operation during the interval while the patient can go to a hospital to be operated upon.

In answer to the question when to operate in appendicitis, I would say:

When the diagnosis is made, except

a.—When the environments are bad.

b.—When no experienced operator or proper facilities are at hand; and

c.—In mild, first attacks.

HYSTERIA; ITS NATURE AND ÆTIOLOGY.

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Hysteria is a disease without a definition, commonly classed among the neuroses because there is no other convenient pigeon-hole in which to place it. It is really a psychosis, very possibly a psycho-neurosis, without any known pathological manifestations. Indeed, from its nature, from the sudden correction of symptoms after years of duration, it would seem that pathological changes would never be discovered.

Though hysteria has no pathology, yet to it can be assigned a definite localization. It is commonly agreed that hysteria affects the cerebral cortex alone, as is shown by the origin, course, and symptomatology of the disease; for in its origin it is most closely related to psychic stimuli, as the great group of traumatic neuroses indicates; in its course it is only by psychic influences that it can be affected; and in its symptomatology the psychic centres are alone involved. The occasional symptom of hysterical amblyopia or amaurosis is important as evidence of this cortical localization. By means of proper tests it can be shown that the patient sees with the eye supposedly blind; that is, that the retina, optic tract and secondary visual centres in the thalami and geniculate bodies are intact, but that the sight-perception area in the occipital cortex is insensitive to visual impulses. It is a mental, but not a physical dullness or loss of vision.

The spinal cord is free. At first sight one might think that hysterical paralysis indicated involvement of the cells of the anterior horn; that interruptions in limited territories of the heat and cold sensations might indicate a disturbance similar to that of syringomelia. Observation shows, however, that the individual motor cells are not paralyzed, for there is no resulting atrophy; moreover not muscles, but movement complexes—that is to say, acts—are affected; the pyramidal cells in the motor cortex are at fault, not their servants in the cord; nor are the fibres concerned in the transmission of the sensations of heat and cold involved in any changes, but the cortical receiving centres for these impulses fail rather to be aroused. Similarly when in an hysterical patient a certain portion of the skin drops out of consciousness, it is not the sensory tracts of the cord, or their continuation in the tract of the fillet, or the secondary sensory nuclei of the optic thalamus, or even the coronal fibres sweeping up through the posterior limb of the internal capsule, but instead the receiving cortical centres which are involved. Reflexes remain present, and conduction is good; the skin itself feels and responds, but the cerebral cortex does not *perceive*. The sensory impulse travels toward the cortical centre along normal paths, knocks at the door, but finds the door closed to its reception.

From what has been said it is evident that hysteria in its local manifestations ought, *à priori,* to be limited to psychical processes. If we examine it rigorously we find that it is so limited, though observed cursorily it does not seem to be. Although the disturbed centre is in the cerebral cortex, still the manifestations of hysteria appear in all possible territories of the nervous system, but only in so far as these are dependent upon, or are modified by, psychical processes. Thus vaso-motor disturbances at first sight seem independent of the psychical centres, yet it is known that a central vaso-motor tract is to be found anatomically and clinically in the posterior limb of the internal capsule; and physiologically the effect of psychical emotion upon our vaso-motor nerves is common knowledge.

The cerebral cortex being the seat of the disturbance, what is the nature of the effect upon the cortex? The disturbances resulting, always functional in character as above hinted, belong to one or more of three types: (1) There may be a deadening of the sensory excitability of the cerebral cortex resulting in symptoms of hypæsthesia, anæsthesia, hypalgesia, and analgesia; or a deadening of the cortical motor discharge, resulting in paresis and paralysis. (2) There may be an intensification of the perception of the entering impulse manifested by hyperalgesia and hyperæsthesia; or an intensification of the energy of the motor discharge, resulting in spasms and convulsions, often reflex in character. (3) There may be confusional interpretation of entering impulses, manifested by symptoms of paræsthesia; or confusion in the motor discharge of cortical cells, resulting in hysterical ataxia, and in such contractures as are due to the imperfect distribution of motor impulses to groups of opposing muscles.

The first of these types of functional cortical disturbances, diminished excitability, is often seen in health, for it frequently happens that a mind absorbed in one thing is insensitive to another. This deadening of the cerebral cortex seems to be normal in hibernating animals. Indeed, to me hibernation in the lower vertebrates seems to be the trance-like lethargy of auto-hypnosis—in other words, hysteria—though hysteria with a proper physiological and conservative basis; and this form of hysteria in man, occurring in all degrees from slight hypæsthesia to complete lethargy, may be merely the survival of a condition passed by in our psychical evolution, may from the standpoint of evolution be looked upon as a condition of psychical reversion or atavism.

Not only is there a deadening of the excitability of the sensory cortex, but the motor excitability is also impaired. What it is to think and will to do, is not known; and until it is known, it will be impossible to explain the mechanism of hysterical paralysis. All that can be said is that in cases of complete deadening of the cortex, as in lethargy, the power of the initiative is gone, the cells are incapable of their motor discharges, and muscular movements do not take place at all. In other cases portions only of the motor cortex are involved, so that certain groups only of muscles are paralyzed. It is worth while to note that sensory excitability disappears first in hysteria, and motor excitability last.

Besides the deadening of the excitability of the cerebral cortex, it was said that it might be affected secondly by being made hypersensitive to external impulses. Again, it is impossible to decipher the mechanism of the process. A delicate brush swept over the skin may give exquisite pain, a breath of wind may be agonizing; convulsions, opisthotonos, may be brought on by insignificant causes. It is as idle to class a patient in this condition with malingerers as it is to refuse to believe that a tender girl's will-power alone enables her to restrain the natural cries of pain when a needle is thrust into her analgetic skin. These hyperalgesias, hyperæsthesias, reflex spasms and convulsions, are intensely real, and deserve fully as much credence as the anæsthesias.

The third manner in which the cortex manifests its hysterical affection is in what I have called confusional interpretation. Between our will to act and our muscles to execute the act, there is by the upper and lower motor neurones a very definite relation. Between the skin and its sensory modifications and our cortices, by way of the sensory tracts of the cord, the fillet, optic thalamus, and coronal radiations, there is an equally definite relation. But very commonly in hysteria, so commonly that some writers in their attempted definitions have singled out this form of hysteria alone, these definite relations are thrown out of balance and confusion results. Thus hysteria has been called a faulty or morbid interpretation of afferent sensory impulses, as though this were all. It is because this particular form of involvement of the cerebral cortex is so common in hysteria, embracing, perhaps, the largest percentage of all cases, that these errors of definition occur. According to this type of functional disturbance anything becomes "hysterical" when it is based upon a disturbance of the normal relations between the processes of our consciousness and our physical existence. Thus it happens that hysteria presents a multiplicity of symptoms, for there is little limit to the scope of confusional interpretation. It might be further added that this is practically the only form of hysteria of which the laity and some of the profession are aware. It will be a huge step forward in medicine when the old understanding of the word "hysterics" gives place to an appreciation of the meaning of the larger word hysteria; and incidentally cures will be more frequent.

In the light of the neurone theory the various mechanisms of subexcitability or superexcitability of the cortex, and of confusional interpretation of afferent impulses or confusional distribution of efferent impulses, may subsequently be revealed. Relations between axones and their arborizations, or those of their collaterals on the one hand, and the dendrites or cell-body of another cell on the other hand, may possibly be disturbed. It was once thought that dendrites had the power of elongating and of shortening themselves, thus making and breaking new circuits in comparatively short periods of time; and by this theory of Rabl-Rückhard hysteria was in part explained. But this theory rests upon the frail foundation of amœboid motion in nerve-processes actually observed in but one living invertebrate, and generalizations on such a basis are worthless. In man no such changes in the lengths of dendrites have ever been seen.

so that just at the present time we have no adequate anatomical explanation of the nature of hysteria.

Personally, I am an earnest believer in the neurone theory and its future possibilities. Just as in lower tissues, as in bone for example, cells are arranged in very accurate mutual relations about blood-vessels, and just as in all cases in which thorough study has been made, histological relationships in a given tissue have been found to be infinitely exact in their reduplication in different members of the same species, so also in nervous tissue, the most highly organized and noblest tissue in the human body, it is probable that there is preserved an absolute relationship in numbers, arrangement, and mutual contacts of homologous neurones. External, gross, anatomical features are repeated throughout all the members of a species; why should not the finer relationships of neurones, one to another, be likewise repeated? Is it not probable that just as we have a definite number of neurotomes developing in definite mutual anatomical relations in the embryo, we may also have a definite number of neurones develop in a neurotome? Counting experiments on the cord, the study of cell-columns, the number of cells to be seen in cross-sections of the same portions of the cords of the same species show a remarkable uniformity in results; is this uniformity accidental?

It is universally taught in chemistry that equal volumes of gas, under like conditions of temperature and pressure, contain equal numbers of molecules, the well-known law of Avogadro. There was a time when this fundamental law of chemistry was looked upon as wildly fantastic, and even to-day it seems incredible that, small as molecules are known to be, one litre of oxygen and one litre of hydrogen should contain to a unit the same number of molecules. Is it extravagant to believe that a time will come when it will be admitted that the brain and cord of animals of a given species are made up of approximately equal numbers of neurones definitely arranged, and that each individual cell of the body has definite predetermined connections with definite neurones? Already we are beginning to believe that every individual muscle-fibre has definite connections with definite cord neurones. We even teach that certain cells of the lateral group in the cervical enlargement of the cord supply the flexor muscles of the arm and hand, while the more median cells supply the extensors, and that this cell arrangement holds constant. We teach physiologically that the muscle-nerve preparation is a unit; clinically we infer that it is a unit, cases of progressive muscular atrophy of the dystrophia type, in which in times past the muscle only was supposed to be involved, showing in increasing numbers lesions in the anterior horn-cells; and histologically also, should not the teleneurone and its muscle-fibres be looked upon as a unit? And if there is a definite number of lower neurones controlling a definite number of muscle-fibres, is it not probable that these lower motor neurones are under definite control of, standing in definite relations with, a definite number of the upper neurones? Accident does not prevail in histology.

Is not instinct to be explained wholly by the mutual anatomical relations of neurones in a given animal? A cat is said to wash its face by instinct; why? Because sensory irritation from dirt causes impulses to pass to the cortical centre along definite paths; the receiving cortical cells are in definite relation with definite motor cells; with or without the awakening of consciousness, mechanically or consciously, motor impulse travels back, rousing certain muscles to contract rhythmically in certain ways. This whole process is made possible by the fact that in the development of the kitten the anatomical *relationships* of the various neurones concerned developed normally. Instinct may then be defined as the physiological expression of inherited anatomical mutual relationships among the neurones. If, as happens frequently in those we call neurotics for lack of a better descriptive term, these anatomical relationships are not transmitted in their integrity, if there are deformities among the neurones too fine to detect by present methods, then it is possible for a condition like that of hysteria to arise. That hysteria is congenital, and latent in many in whom it rarely appears, supports this hypothesis. That the hysterical patient may be educated, and by this education new relationships be established among neurones, thus remedying congenital defects, is also in favor of the hypothesis. At present we explain the acquisition of knowledge and education in general as due to the establishment of new relationships among neurones by means of their axones, collaterals and dendrites. If we assume that hysteria has beneath it as an underlying nervous defect a perversion or confusion of the normal relationships, we are able to explain why suggestion and education offer the only rational method for alleviation and cure of the condition. At most, however, the whole mechanism of hysterical manifestations is conjectural, and though conjectures are often valuable in their final results, yet at present the true nature of hysteria remains, unsatisfactorily to all, in deep obscurity.

Diagnosis.—Hysteria cannot be learned, as Leube remarks, from mere printed descriptions of the disease. Of all nervous diseases it is the one which must be seen and studied by the medical student. Every nervous case should be approached with three ideas in mind: that the case may be functional, that it may be organic, that it may be both combined. One's first duty is to look for signs which cannot be functional, which must be organic; and the diagnosis of hysteria should be arrived at always by exclusion. Carefully examine the eyes. If the pupils fail to respond to light or to accommodation, if they are unequal or irregular in contour, if there is true paralysis of the third or sixth nerves (I do not refer to apparent paralyses, which are really spasms or contractures of opposing muscles), beware of making a diagnosis of hysteria. If there is muscular atrophy or loss of electrical excitability, real ataxia in the gait, corresponding to some definite type, not a lawless ataxia belonging to neither the hemiplegic, cerebellar, spastic, nor tabetic type; if the patellar reflexes are absent or unequal on the two sides; if there is speech disturbance of the typical sort, such as we meet in paralysis progressiva or bulbar paralysis; if there is true intentional tremor, lasting bladder and rectal disturbances, do not be in haste to diagnosticate hysteria; for all of these things show organic disease to be present. If any one organic symptom is present the case must be examined most carefully for the organic disease suggested. One should not, however, forget the possibility of a combination of organic disease and hysteria. Over an organic lesion of the nervous system, as shown by a recent case of transverse myelitis in the nervous clinic of the Northwestern University Medical School, a varnish of hysteria may be spread, thus confusing the sharpness of the picture. Often a catarrhal larynx leads to hysterical aphonia, an inflamed joint to hysterical contracture or paralysis. One must not be too sure, therefore, that when hysteria is shown to be present, nothing else is present.

The keynote of hysterical manifestations is their multiplicity and variability. In the consideration of a given case, therefore, it is not possible to take each symptom by itself. Thus a hemianæsthesia of skin and mucous membrane, though common enough in hysteria, occurs also in lesions of the posterior limb of the internal capsule, or in lesions of the optic thalamus, or of the tegmentum and inner third of the crusta in the midbrain. Again, a glove-like anæsthesia in an arm might indicate syringomyelia, rather than hysteria. The diagnosis should be made by massing the sum total of symptoms present, and by their variability and multiplicity, rather than by any one particular symptom.

In *intensity* the cases may be very slight, almost monosymptomatic, when they are exceedingly difficult to diagnosticate with certainty, as the preceding paragraph implies. These cases show psychical excitability, restlessness, anxiety, hypochondriasis, headache, hysterical globus, dyspepsia, palpitation, and fugitive pains of a vague character. These forms are very common in America, and are often confused with neurasthenia. Sometimes the cases are more severe, very commonly caused by psychical or physical trauma, with one or more symptoms of special prominence. These cases are more frankly hysterical, and show sensory disturbances, paralysis, hysterical aphonia, contractures, anorexia, hysterical vomiting, various neuralgias, etc. The third group of cases in order of intensity is more rare in the American-born: in this form there are convulsions with a train of symptoms of more or less gravity.

The *development* of hysteria as a rule is gradual, with subjective complaints by degrees increasing in intensity until the whole mind is concentrated upon self. Another large group of cases, attracting more attention, but numerically much less common, has a sudden onset from psychical or physical trauma, most of these cases going under the name of traumatic neuroses. The *course* of hysteria is rarely acute, yet deaths have resulted from hysterical fright. The cases are almost invariably chronic and incurable. The various symptoms as they appear may yield repeatedly to suggestive treatment, but sooner or later the underlying hysteria will burst out in renewed energy elsewhere. Hysteria with varying intensity has been known to last until the eightieth year.

Ætiology.—The causes of hysteria are (*a*) predisposing and (*b*) exciting. (*a*) Of the predisposing causes (1) heredity plays the most important part. Some, as Charcot, go so far as to say that hysteria is always inherited. By others twenty-five per cent. of cases are said to show a history of neurotic antecedents, but this percentage is undoubtedly too low. Strümpell is of the opinion that hysteria is congenital in a large proportion of all cases, and that it is latent in many who never show hysterical signs, simply because they have never been subjected to an exciting cause. There is nothing against the supposition, however, that predisposition may be acquired as well as inherited. Among ancestors, alcoholism, toxæmias, syphilis, tuberculosis, traumatic neurosis, insanity, chorea, neurasthenia, migraine, neuralgias, head injuries, and hysteria itself, all figure prominently as causes sufficient to explain the poor nervous endowment of their offspring. The path of transmission, as in tuberculosis, is more apt to be through the mother. Frequently parents escape, but grandchildren are affected. Less frequently hysteria is transmitted by the father.

Closely connected with the subject of heredity is that of race. The worst cases are found in Latin races, in the Slavs, and the Jews, especially the Russian Jews. It is said to be frequent in the very suggestible negro race, though in our city clinics most of the cases occur among foreign-born whites. The Russian Jews, by centuries of persecution undergone, and by reason of continuous psychical trauma, are especially predisposed.

(2) Age. Hysteria usually appears about the age of puberty, from twelve to twenty, fifty per cent. of all cases occurring within this time limit. It occurs, however, at all ages, though rarely beginning before twelve or after forty. It may begin at eight or ten, even before the sixth year, even in the third or second year, though very rarely. I have seen hysterical convulsions in a boy of five, and hysterical dysphagia in a girl of ten, who was cured in two days by a stomach-tube, to which she had a great aversion. After hysteria has once appeared, it lasts to the menopause, or even beyond, as above stated. Cases beginning late, as most of the traumatic neuroses, are especially obdurate and persistent.

(3) Sex plays an important part. At one time hysteria was said to occur almost exclusively in the female, but of late years one per cent. of cases has been assumed to occur in men, and ninety-nine per cent. in

women, as the word hysteria, from ὑστέρα (womb) shows. Still later statistics by Briquet, often quoted, give five per cent. of cases in men and ninety-five per cent. in women. Oppenheim puts the ratio at one to ten or one to six. In the last twenty-four cases at the nervous clinic of the Northwestern University Medical School, eight were men, giving a ratio of one to three; thus, though a majority of cases does occur in the female, hysteria is very common in the male also.

(4) Protracted and exhausting constitutional diseases predispose toward hysteria by weakening nervous control, so that a slight exciting cause may suffice for an hysterical outbreak. Thus it is that hysteria often accompanies diabetes, severe anæmia and chlorosis, cachexia, syphilis, tuberculosis, and obesity; or that it is a sequel of typhoid fever or influenza, or any of the acute diseases which exhaust and depress. Is it not possible that in these diseases a few collaterals and dendrites disappear here and there from lack of nutrition, so that normal mutual relationships among neurones are impaired?

(5) Diseases of the sexual organs merit special consideration. These were once said to be a great predisposing and even exciting cause, but they are probably of only slight importance. It used to be said that uterine displacements, menstrual disturbances, leucorrhœa, ulcerations, diseases of the ovary or vagina, irritation of the clitoris, were all great factors; and a good many ovaries have been removed, with consequences anything but gratifying to the patient and physician. Indeed, there seems to be no greater relation between disease of the sexual organs and hysteria than between pulmonary tuberculosis and hysteria. Statistics show that in a great number of hysterical patients the sexual organs are normal. In only two of the sixteen cases in women in our clinic was gynæcological examination thought necessary. One patient showed a negative result, the other submitted to a curettement, with no alleviation of the hysterical symptoms. If it happens that in hysteria a few cases exist in which the sexual organs are not perfectly healthy, what ground is there for alleging such disease as a cause, particularly since in a given number of hysterical females the percentage of disease of the sexual organs is no greater than in the same number of patients affected by some other neural disease? Besides, in the greater number of all cases of hysteria where disease of the sexual organs occurs, examination of the patient will often reveal another more potent causal factor. And if, in spite of all thus far said, it still seems to some that these disturbances, together with pregnancy and confinement, predispose or actually incite hysteria, is not the predisposition or incitement due to their psychical suggestive effect rather than to their effect *per se*?

(6) Faulty education and home-training is a last and very important predisposing cause, and we may perhaps thus explain the preponderance of cases in the female. Hysteria generally appears in cases where self-control has not been taught, that is, in girls from twelve to twenty years of age, to whom an abundance of sympathy for trifling woes is too readily accorded. Bad education, by failing to overthrow the whims of the child, and by failing to develop the will and energy, leads to the outbursts when the exciting cause appears. In boys the home-training or the world-training usually develops strong nervous symptoms.

(B) The *exciting causes* are easily reducible to a few, and these few to one, as will be later shown. Of these exciting causes the most important is (1) *psychical trauma*, by which is meant any violent psychical excitation. Mere mental overwork, a potent factor in the ætiology of neurasthenia, never causes hysteria, but mental jars or disturbances, especially if they are sudden, do. A curious fact is that the hysterical outbreak does not necessarily immediately follow the cause; it may be delayed and the cause remain obscured, even permanently, unless sought for by the physician; such causes are the psychical traumas from great fright, perhaps from a dog-bite, or great anxiety as an escape from drowning, or great excitement as loss of a home by fire. In all of these cases the real effect is upon the mind, and the mind suffers. Symptoms arise, not necessarily connected by the patient with the true cause, until the physician brings the facts to light by cross-examination. Thus a patient showing marked hysterical symptoms did not think to mention the exciting cause, till careful searching brought out the fact that when he was sixteen years of age he was bitten on the hand by a dog. His mother was neurotic, his father unsympathetic; he told no one, and waited patiently for hydrophobia in an agony of fear. He really had a fear of water, lest by drinking it he should go mad; and so for hours he used to go without drinking till his throat was parched. This state of anxiety was endured for several months, and represented a powerful psychical trauma, the real factor in the awakening of latent hysteria, inherited from his mother.

Fear, fright, jealousy, love-affairs, great disappointments, anxiety, care, worry, grief, remorse, receipt of bad news, earthquake-shocks, lightning-strokes, anything causing what we call great mental strain, is competent to produce hysteria. In one of the before-mentioned twenty-four cases, the first outbreak came immediately upon the receipt of news that a husband, after a year of desertion, had run away with another woman. In another case the anxiety and care for a sick mother, after the mother's death, sent the daughter to bed for three years. Often religious excitement awakens hysterical symptoms. Religious epidemics of hysteria have swept over France more times than one, and they occur in our own negroes.

As was before said, a single severe psychical trauma may be immediately followed by the outburst; but lesser psychical injuries, as depressing, irritating, moral, or mental influences, acting over long periods of time, may be equally competent to produce hysteria. Just as in physiology we have the law of summation of stimuli, where one stimulus to a muscle-nerve preparation is incompetent to produce a twitch, but a definite number of gentle stimuli repeated suffice by their summation to do so, so in the case of mild psychical trauma long continued, the outbreak of hysteria ultimately follows. Thus worry and trouble when endured but a short time may have no effect, but long continued, cause hysteria.

(2) *Physical trauma* is the exciting cause in many cases, especially in the great group of the traumatic neuroses, the cases of "traumatic hysteria," so-called, or "railway-spine," "railway-brain," etc. Almost any trauma may suffice, for after all this in itself is not the exciting cause. It is not the physical trauma *per se*, but rather its psychical suggestive effect that brings on hysteria. Since injuries to head and spine cause the greatest psychical impression, this class of injuries is most often followed by hysteria. These injuries are, as a rule, slight, consisting often of a mere shaking-up, but are overestimated by the patient. Usually the localization of the chief hysterical symptoms is determined by the portion of the body to which the patient's mind was turned at the time of or immediately after the accident.

An important point, which often gives diagnosticians their first insight into the hysterical nature of the case, is that the patient is not immediately affected by the injury; usually the effect comes after a certain interval of time. Indeed a law might be formulated, that *cases of traumatic neurosis do not begin acutely*, instantaneously. They develop gradually one symptom at a time, till the cases are full-fledged. In case after case a period of time of longer or shorter duration, from a few hours to days, will be found to elapse, during which time the patient will say the "injury was working" upon him. For example, in a case of a lineman who fell from a telegraph pole and struck on his shoulder, a condition of apparent brachial neuritis (traumatic) developed in about three days' time. At the time of the accident he was taken to the Cook County Hospital, where he was examined and refused admittance, being told that he was merely somewhat bruised. He went to work, and was well two or three days, when his arm and shoulder began to pain him so much that he was forced to quit work. He went to a hospital, where he remained ten days, but with no benefit to himself. At this hospital the examination-sheet showed that nothing could be found to account for the pain. At the clinic the time interval was at once noted as an indication of hysteria, and the sensory stigmata, apparently never before sought for, being new to the patient and unknown to him, were found. After the first application of electricity (reinforced by suggestion, which is all-important), the pains ceased, and three applications cured him.

(3) The third great exciting cause of hysteria is *suggestion*. Almost all of the mild cases owe their existence to it, and since these outnumber the severe ones, it is perhaps the most active cause of all. The suggestions come from the outside, frequently from the physician, or from within, when they are known as auto-suggestions. Of the auto-suggestions, those arising from various ailments are the most frequent; diseases of the sexual organs figure in this category; masturbation, by its effect upon the mind, in the fear which it excites of after-results, is a frequent factor, the fear of the results suggesting them. Sexual excesses and perversions often act as does masturbation.

Diseases of the joints form another large class of causes of hysteria from auto-suggestion. A simple arthritis is capable of causing most pronounced symptoms; a slight joint trauma may, for example, cause a contracture. This class of cases is peculiar in that the localization of the hysterical manifestations is always predetermined at the seat of injury or disease. Sometimes, as was noted in the case of psychical traumatic cases, it is the result of suggestion from a long succession of slight traumas affecting a part, another example of the law of summation of stimuli applied in clinical medicine. These cases begin, as one would suppose, not suddenly, but slowly and imperceptibly.

Suggestions may come from the outside. These cases very unfortunately frequently arise from carelessness on the part of a physician. Repeated medical examinations of a neurotic are very bad; the examination should be made once for all, and thereafter the patient should be left alone. Frequently it happens that upon an actual organic basis a varnish of hysteria is superimposed by the examining physician; symptoms sought for and not found are present upon the next examination, so that the physician may himself build up a set of symptoms by pure suggestions, and blind himself to the underlying organic affection.

Another set of cases from outside suggestion is that group called the "imitation cases." Thus a patient saw an epileptic convulsion, and afterwards she herself had similar convulsions. In children these imitation cases are common, especially a form of imitative hysterical chorea. It will at once be seen that motor symptoms alone are imitated, since these alone are visible. Dr. S. Weir Mitchell has reported a case of apparent cerebrospinal meningitis in a nurse-girl who had but a short time before seen two cases of it.

(4) Various toxæmias are alleged as exciting causes. Hysteria following alcohol, lead-poisoning, poisoning from morphine, cocaine, arsenic, carbon bisulphide, is not uncommon, and has been called *toxæmic hysteria*. In the nervous clinic of the Northwestern University Medical School the most pronounced case of hysteria in two years' time followed lead-poisoning. To my mind the mechanism of causation is not wholly clear; I am inclined to think that these toxæmias act upon the subject in a twofold manner, first by weakening his strength of nervous control, and secondly by suggestion, so that they do not represent true exciting causes in themselves

alone. In a lead-poisoning case, for example, the suggestive effect of a double wrist-drop is very great, especially if the patient is very anæmic, as he almost invariably is, so that nerve-nutrition and control are impaired. It is also possible that these toxic substances, certainly a potent factor in peripheral multiple neuritis, may actually exert a destructive influence upon cerebral cortical axones, dendrites and collaterals, and even upon ganglionic cells themselves, so that the conditions of superexcitability (due to slight effects) or sub-excitability (due to graver disturbances) or confusional control might have almost a quasi-pathological basis.

If we mentally recapitulate the exciting causes, physical trauma, psychical trauma, and toxæmic states, it is evident that they are merely special methods by which the one great exciting cause, that of suggestion, operates. In the case of psychical trauma it is, in the last analysis, the patient's suggestibility which leads to the hysterical outbreak; in physical trauma the element of suggestion is so pronounced as to be self-evident; in toxæmic conditions suggestion has every reason for being aroused. Thus it is that all the exciting causes, reduced to the lowest terms, may be summarized in the one word, suggestion.

Much stress is laid upon the ætiology of hysteria, because of its importance in diagnosis. No case of hysteria will be found which has not had its origin in some physical or psychical trauma, or in some suggestion from without or within; and by careful searching for the cause, a diagnosis may be immensely strengthened.

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VULVOVAGINITIS IN CHILDREN.

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Since the publication of my paper on the Study of Vulvovaginitis in Children* the medical literature on this subject has been enriched by but few contributions. The nature of this dreadful affection is still shrouded in mystery. Innumerable subjects of it still run at random, leaving sources of contagion in public schools and baths without the disease being stayed in its ravages by the health authorities. Many physicians still cling tenaciously to the repeatedly disproved "scrofulous" theory of vulvovaginitis and recommend the expectant or "tonic" treatment of combating this affection. This ignorance is so much more unpardonable and deplorable as we have the means at our command to trace every case to its original ætiological source, and thus to employ rational measures in its prevention and cure. Indeed, the indifference of the profession at large towards this destructive malady transgresses its limit, and I therefore believe that no apology need be offered on my part for attempting to discuss this subject from a practical point of view, based upon an experience of one hundred and seventeen cases that have come under my care.

Vulvovaginitis in children may be classified according to its ætiological factors in the following manner:

A. Catarrhal Vulvovaginitis, which is due to: (1) Want of cleanliness. (2) Chemical irritation.

B. Traumatic Vulvovaginitis, which is due to (1) Masturbation (?) (2) Mechanical injury. (3) Indecent violence.

C. Parasitic Vulvovaginitis, which is due to (1) Oxyurides. (2) Saprophytes. (3) Pathogenic bacteria, especially the gonococcus.

The first variety of vulvovaginitis is usually met with in children of the lowest class among the inhabitants of large cities, who are constantly exposed to the irritating influence of filth and receive a cleansing bath only on very special occasions. These cases begin, as a rule, with vulvitis, the vagina becoming affected secondarily by an extension of the inflammation. This disease is, however, not always limited to the very poor, and the physician should not hesitate to suspect dirt under the most elaborate apparel.

Hyperacidity of the urine serves as another cause of vaginitis, especially in children suffering from enuresis, when the chemical substances of decomposed urine saturate the underwear or bed sheets, enter the vaginal orifice, and set up a catarrhal inflammation.

A case of vulvovaginitis which came under my care was in a girl of nine years of age who was subject to bromidrosis of the genitalia. The child was an excessive bicycle rider, and I was inclined to attribute the trouble to the decomposition of the secretion of the sudoriferous glands and to the friction of the bicycle saddle against the vulva, for with the interruption of bicycle-riding the vaginitis, as well as the bromidrosis, disappeared under a very mild treatment.

The consideration of the second variety of vulvovaginitis does not, strictly speaking, belong to the domain of medicine, except as to the actual treatment. We are dealing here with faulty habits and criminal traits which ought to receive the grave attention of teachers, the clergy, and jurists. It is, however, the physician who is consulted first, and a few points of information may prove useful, inasmuch as he would not then be so apt to express his opinion without a measure of reserve.

Although among the cases under my care nine children were actually caught in the act of masturbation, and many more must have escaped notice, I, nevertheless, hesitate to agree with many writers that masturbation is a direct cause of vulvovaginitis, and believe that entirely too much stress is laid on it as an ætiological factor. It is much more probable that masturbation is a result rather than a cause of the disease, owing to the fact that there undoubtedly exists an irritated state of the erectile tissue, together with inflammation of the other parts of the genitalia, which is very apt to induce that bad habit. On the other hand, we may well assume that masturbation may serve as a predisposing cause, the acute attack being brought about by contamination with dirty fingers or foreign bodies.

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*American Medico-surgical Bulletin, May 28, 1896.

The presence of a foreign body does not necessarily indicate that it had been introduced with lascivious intentions. There are, of course, precocious children whose degradation may know no limit, but such are certainly the exception among very young girls, and I feel certain that in most instances foreign bodies find their way into the vagina accidentally, as occurred in the following case:

L. B., three and a half years of age, after playing with another girl, six years old, came running to her mother, crying that her comrade had "stuck her in the belly" with a pencil. Not finding any external injury, the mother paid no further attention to it until two weeks later, when a vaginal discharge made its appearance. On examination I found the labia and vulva considerably inflamed; the hymen was annular in shape, the discharge was moderately profuse and purulent and contained numerous micro-organisms, but no gonococci. The next day I examined her again, with the finger in the rectum, and felt a hard, thin, long object lying along the posterior vaginal wall. After washing the vagina with hot boric acid solution, I pushed the foreign body towards the vaginal orifice, but owing to the presence of a gelatinous substance surrounding the object it could not pass through the opening of the hymen. Holding the top of the object with a small, slender forceps, I succeeded in gradually scraping off the adhering substance and extricating a piece of slate-pencil an inch in length, one extremity of which was sharply pointed, the other one ragged. I ordered protargol injections, and the child made a rapid recovery.

Occasionally physicians come across cases of vulvovaginitis which result from indecent violence. The purulent discharge may be either non-gonorrhœal or gonorrhœal, the latter only if the criminal attempting rape has at the time been suffering from gonorrhœa. It is perhaps superfluous for me to add that not every case of vaginitis reported as due to rape is really such, and unless there has been actual penetration of the hymen, and concomitant positive signs of inflammation due to violence are present, the physician must be extremely cautious in venturing to express a definite opinion.

It has long been known that pin-worms or threadworms cause vaginitis. Infection may take place either directly, by the worms creeping from the anal to the vaginal canal, or indirectly, by the parasites being carried into the vagina by means of the fingers, napkins, or bed sheets. A large mass of these worms often collects behind the hymen and acts as a mechanical irritant, giving rise to very severe inflammatory symptoms. While it is usual to find the worms swarming between the labia, they are at times very scarce on the external parts of the genitals, and visible only on close examination of the vaginal discharge, a fact well worthy of remembrance before venturing a diagnosis.

Saprophytic micro-organisms are responsible for a great many cases of vulvovaginitis. To them is attributable the vaginitis so often encountered after acute exanthematous disease, as well as that associated with diverse forms of cutaneous eruptions. The same cause accounts also for the vaginitis met with in strumous and debilitated children affected with purulent discharges from the nose, ear, etc. Indeed, the number of cases of saprophytic vaginitis would by far exceed all those arising from all other causes collectively, were it not for the antagonistic action of the bacillus of Doederlein which normally inhabits the vagina. This vagina bacillus, which is anærobic and may be cultivated on ordinary media, produces lactic acid during its growth, a quality to which is due the presence of lactic acid in the healthy vagina. In its presence saprophytes and pathogenic bacteria, such as the streptococcus and staphylococcus, are unable to develop, and within a short time perish. The antagonism between the vagina bacillus and pathogenic micro-organisms is illustrated by the following experiment carried out by Doederlein:*

(A) A pure cultivation of the vagina bacillus on peptone-agar of three days' growth was inoculated with a culture of the staphylococcus pyogenes aureus. The staphylococci were soon destroyed. When, however, the two organisms were inoculated on agar at the same time, the vagina bacillus perished, showing that abundant products of the growth of the latter are required to destroy the staphylococcus.

(B) The vagina of a virgin was inoculated with a bouillon culture of *Staphylococcus pyogenes aureus.* After six hours an abundant cultivation of staphylococci was obtained therefrom. Twenty-four hours later only a few colonies were found. They further diminished on the second and third days, and by the fourth day the staphylococci had been quite destroyed in the vaginal secretion.

Gonococci do not yield so promptly to the destructive effect of the vagina bacillus, but, as Dr. Bumm has demonstrated, the vagina often escapes gonorrhœal infection owing to the resistance offered to the entrance of gonococci by the stratified squamous epithelium, the superficial portion of which is hard and horny. On the other hand, the urethra, being lined with a delicate columnar epithelium, is much more apt to be attacked, the vagina becoming secondarily affected, after the alteration of the vaginal secretion, through the admixture of the purulent discharges, under which circumstances the vagina bacillus succumbs to the virulence of the gonococcus, gonorrhœal vulvovaginitis being the result. I may state here that the designation of this variety of vaginitis as *infectious* vulvovaginitis is utterly inappropriate, as gonorrhœal vulvovaginitis is never contracted through infection, but always through immediate or direct contact with the gonococcus of Neisser. We should therefore apply the designation vulvovaginitis to all varieties in general, and that of gonorrhœal vulvovaginitis to the form due to the action of the gonococcus. At any rate,

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*Quoted by Sutton and Giles, *Diseases of Women*, p. 114.

the term "infectious" vulvovaginitis ought to be discarded.

I mentioned before that gonorrhœal vulvovaginitis might follow criminal assault in case the criminal was the subject of gonorrhœa. Such instances are, of course, very rare indeed. Far more frequently contamination is accidental. Little girls sleeping with their parents or elder brothers suffering from gonorrhœa may contract the disease through coming in contact with the soiled bedclothes, cotton-pads, or rags which are being used for cleansing purposes. Two cases of this kind have come under my care at the Metropolitan Hospital and Dispensary within the last two months.

E. C., two and a half years old, well and strong, was brought to me with an offensive discharge from the vagina. I learned that the father, who is engaged in the theatrical business, returned after a four months' trip through the country and told his wife, the mother of the child, that he had "strained" himself and was therefore obliged to abstain. Two weeks later the little girl was attacked with a vaginal discharge, which was pronounced by a physician to be leucorrhœa, due to debility, and she was directed to use daily douches of boric acid solution and to take a tonic. The vagina and vulva were frightfully inflamed and swollen and bathed in greenish-yellow pus. The child cried frequently, especially on micturi-ion. The urethra was implicated and the inguinal glands were very tender to the touch. The temperature was 101.5° F. The purulent secretion contained gono-occi almost in pure culture. I examined the father two ays later and found that he was suffering from gonor-hœa. He told me that his child was sleeping with him nd frequently made use of the chamber, where he usu-lly dropped pieces of cotton on which he collected the us flowing freely from his urethra. I put the child, as ell as the father, on protargol treatment. The father recovered in nine days and the child in two weeks.

R. R., four years of age, was brought to me by the ather, a widower, who stated that the child had a vaginal ischarge which he thought she had contracted through e lack of care from the woman with whom she was oarding. Upon closer inquiry I learned that the man ad gonorrhœa and that the little girl was sleeping with m. Microscopic examination revealed an abundance of onococci in the purulent vaginal secretion. The father emed to have given little credence to my opinion. He eturned three weeks later, after having visited several spensaries, and informed me that he had used many rugs for irrigation, but that the child had gone from d to worse. The little girl was in a pitiable condition; e pus was literally pouring out of the vagina and the hole vulva was extremely excoriated. She complained pain all over the lower portion of the abdomen. She as kept in bed for four days, and I ordered alkaline diu-tics internally and protargol injections, after the ethod described below. She recovered in three weeks d a half.

Four years ago I had occasion to report an epidemic gonorrheal vulvovaginitis in which sixty-five cases curred at the Hebrew Sheltering and Guardian Society phan Asylum. The starting-point of the epidemic s traced to the admission to the institution of a girl ffering from gonorrhœal vaginitis, and to the further nveyance of the disease through the baths, twenty to thirty of the inmates having been bathed in one large bathtub at a time. After the eradication of the epidemic thirty-two cases more appeared at the asylum, especially in the hospital department, one or two at a time. The origin of most of them could be traced to the common use of small bathtubs, privies, beds, and bed-sheets. All these cases, like the others, showed an abundance of gonococci in the vagina, with greenish-yellow discharge. In order to give an idea of the virulence of the first epidemic, I may add that six cases of purulent ophthalmia, four of local peritonitis, two of proctitis, two of synovitis, and one of endometritis, complicated the sixty-five cases of vulvovaginitis. Furthermore, one case of purulent ophthalmia developed in a boy ten years of age who accidentally made use of a towel belonging to a girl who at the time was suffering from purulent ophthalmia complicating vaginitis. Another case of gonorrhœal urethritis occurred at the same time in a boy, six years old, who most probably contracted the disease through the common use of the chamber.

I must finally add that to the pathogenic variety of vulvovaginitis belong also the cases due to diphtheritic and tuberculous infection; their occurrence is, however, so rare that I shall refrain from giving a detailed description.

The differential diagnosis of vulvovaginitis is of the utmost importance and can be made with comparative ease if the above-mentioned classification is well borne in mind. Meeting with a case of vulvovaginitis, we must first inquire into the full history; secondly, inspect the affected parts for the presence of foreign bodies, worms and injuries, and, thirdly, examine the vaginal discharge under the microscope. No diagnosis of vulvovaginitis should be made without a careful microscopic examination, for it must be remembered that the presence of one variety of vaginitis does not exclude that of the other. Thus, for instance, on finding pin-worms and directing our remedies against them, we might succeed in destroying them, while the vaginitis might still go on, owing to the simultaneous presence of gonorrhœa. Special attention must be paid to the distinction between saprophytic and gonorrhœal micro-organisms, as it is quite common to find both in one and the same vaginal secretion. The following are the chief characteristics of the gonococcus of Neisser: It is a diplococcus. Each of the halves has an outer convex and an inner straight contour; each lies close to the other along the straight contour, so that a thin slit remains between them. Each half of the diplococcus thus resembles a coffee bean. The organisms are never grouped in chains, but are always found in small groups and clumps, and the number of single individuals in each group is usually four. The groups are situated partly in the pus and partly in the epithelial cells. The organism becomes decolorized by Gram's method, a feature which is considered the crucial test for the gonococcus of Neisser.

Upon the detection of gonococci in the vaginal secretion, the physician must impress upon the patient's relatives or attendants that they are dealing here with a highly contagious disease which is apt to prove of great danger, not alone to the child, but to all those coming in contact with it. Strict isolation must therefore be insisted upon and perfect cleanliness insured. The common use of privies, baths, beds, towels, etc., must be forbidden. There are two complications which may prove very disastrous to the child, but are fortunately preventable, to wit: Gonorrhœal ophthalmia and peritonitis. The first complication is contracted either through conveyance of the purulent discharge from the vagina to the eye by means of the fingers or through the entrance into the eye of some particles of pus which are usually found adhering to the bedclothes. To prevent this dreadful complication, I had been in the habit of placing the forearms of the child in a sort of sling which did not permit them to reach down below the fifth rib, and bandaging the children's eyes with a small piece of absorbent cotton and a short but wide bandage, before putting them to bed. As it was quite difficult to carry out these rules with a large number of children, I had to adopt the following: 1. A pad made of an internal thin layer of absorbent cotton and an external layer of oiled silk was applied pretty snugly over the vulva by means of a T-bandage. The pad was changed three times a day. 2. A few drops of a half-per-cent. solution of protargol were instilled into each eye three times a day. These precautions worked exceedingly well, no cases of gonorrhœal ophthalmia having occurred in the last forty-six cases of gonorrhœal vulvovaginitis. I may add that during the first epidemic washing of the eyes with boric-acid solutions utterly failed to prevent this complication.

The second complication results in most instances from the vaginal secretion being forced into the uterus, Falloppian tubes, etc., during douching. This can be avoided: 1. By discarding the douche, adopting the method described below. 2. If douches are being used at all, by not having the douche-bag more than two feet above the level of the child's body.

The active treatment of vulvovaginitis differs somewhat with each variety. Foreign bodies, if found, must be removed. Worms can easily be destroyed by the administration of small doses of calomel and santonin and the injection of a strong decoction of quassia wood. For the arrest of the vaginal discharge I use protargol solutions in every variety of vaginitis, as it is the safest remedy, should we sometimes err in the diagnosis. The strength of the solution must be adapted to each indication, depending not alone upon the variety, but also upon the quantity and quality of the discharge during the course of the disease. In gonorrhœal vulvovaginitis I usually employ a two-per-cent. solution; in all the other forms a solution of half this strength. When the vaginal mucous membrane is very sensitive, a weaker solution may be employed at first, although I have frequently used a five-per-cent. solution without any bad consequences whatever. The child is placed in the dorsal posture, and the legs are spread wide apart. The exuding pus is wiped away with absorbent cotton, and by means of a glass syringe holding half an ounce a five-per-cent. solution of sodium bicarbonate is slowly and repeatedly injected into the vagina until the accumulated pus is evidently completely removed. This is followed by the injection, through a small soft-rubber catheter, of one or two syringefuls (depending upon the age of the child) of the protargol solution referred to before, and this is allowed to remain in the vagina about five minutes by bringing the labia closely together. This process is repeated from three to five times in twenty-four hours. When the urethra is implicated I prescribe the following crayon:

℞	Protargol, } Iodoform, } each	12 grains;
	Peruvian balsam	6 drops;
	Extract of belladonna	1 grain;
	Cacao butter	a sufficiency.

M.

Make twelve crayons two inches in length and one-eighth of an inch in circumference.

Sig. One to be introduced into the urethra once or twice a day.

In gonorrhœal vaginitis I order also the insertion of one of these crayons at bedtime. No irritation follows this method of treatment, and it is usual to find the gonococci, as well as most of the discharge, disappear within ten days. The strength of the protargol solution is then gradually diminished. The advantage of this method of treatment over all others in vogue can be well illustrated by the fact that, of the first sixty-five cases of vulvovaginitis under my care, none had been cured in less than four weeks, most of them running as long as from two to four months, while under the protargol treatment almost all of them ended in recovery within three weeks. Furthermore, the forty-six cases of gonorrhœal vaginitis which were treated with protargol were, with but one exception—inguinal adenitis—entirely free from complications. In painful micturition the administration of alkaline sitz-baths is very beneficial. At times alkaline diuretics prove useful. If there is severe pruritus or if there are marked symptoms of inflammation of the genitalia, the child is put to bed and a powder of zinc oxide and starch is applied, special attention being paid to keeping the surface perfectly dry. It is a good rule to stop the use of the injections gradually and to keep the little patients under observation for at least two weeks after the entire disappearance of the symptoms. It is especially imperative that no case of gonorrhœal vulvovaginitis should be pronounced cured unless three microscopical examinations of the vaginal secretion prove negative.

5 MITCHELL PLACE.

A CASE OF ENLARGEMENT OF THE LIVER AND SPLEEN SUCCEEDING CHRONIC CATARRHAL CHOLANGEITIS.

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The patient is Ella C., a French Canadian girl, aged twenty years, five feet in height. Her ailment began in June, 1899. Its onset occurred in the following way: A pain suddenly developed in the back, the point indicated being the sacrolumbar junction; it passed thence through the belly and toward the stomach. Since the date of its appearance the pain has constantly recurred at intervals of one, two, and three days. The first pain was succeeded by jaundice, but how soon the jaundice developed cannot be ascertained. Till June, 1899, the patient had menstruated regularly; since that date the menses have been absent. During the past seven months she has experienced chilly feelings. She says that during the continuance of pain, which sometimes lasts many hours, she has often been so chilled as to be compelled to cover herself in bed, and that the chills have in some instances been followed by fever, which, when she took hot ginger-tea, always terminated in a sweat.

The patient's skin is jaundiced to a deep, dark, yellowish hue; her sclerotics are greenish-yellow. Her body shows some wasting, especially between the extensor tendons of the hands and feet, and beneath and behind the great trochanters, and her facial expression indicates the effects of long-continued distress.

The mucous membrane of the mouth and lips is pale-yellow in color. The gums are shrunken, and the teeth, standing in clear relief, are covered near their sockets with a crumbly gray tartar.

Physical examination with the patient in the dorsal decubitus shows that the abdomen is symmetrically swollen, rising to a considerable height at the navel, thence smoothly falling away to the iliac and hypogastric regions. From the navel to the xiphoid appendix the descent is not so marked, there being a moderate fulness in the epigastrium.

The percussion note is tympanitic—it is high-pitched over the epigastrium, low over the remaining regions of the belly. The note is not altered in character in any part of the belly when the patient is turned upon either side.

By percussing one flank of the belly, a distinct quick impulse is generated against the fingers held upon the opposite flank. This impulse cannot be so distinctly felt when the edge of an assistant's hand is pressed firmly in the median line between the xiphoid appendix and the symphysis pubis.

By palpation only distended intestines are felt in all regions of the lower belly. In the right hypochondrium the right lobe of the liver is perceptible to a considerable distance below the ribs. Below the right eleventh rib it is felt reaching very nearly to the crest of the ilium; thence the enlargement advances toward the navel, from which it is separated by an interval of not more than an inch and a half, and thence, in an inverted U-shaped line, passes upwards and inwards across the right half of the epigastrium, where it is lost. This enlarged lobe possesses a ridgy feel. It does not alter its position during deep breathing.

At the seventh and eighth left costal cartilages a triangular mass, about two inches wide in its broadest part, is felt projecting downward and inward about two inches toward the navel. The percussion note, elicited first at the eighth left costal cartilage, is a dull, almost flat, sound, and so laterally along the upper border of the eighth rib to the posterior axillary line, from which point it is continued downward and backward over the ninth, tenth, and eleventh ribs in a line with the apex of the left scapula. The continuity of the physical signs relating to this enlargement proclaims it to be the spleen in a state of hypertrophy. The mass does not alter its position during deep breathing. Tenderness to pressure is marked only in the epigastric region, and particularly just below the xiphoid appendix.

Lungs.—Over the anterior regions of the chest the physical signs are normal, except in this, that the line of hepatic flatness exists at the fourth right rib, along the upper border of which it extends from the right margin of the sternum to the right anterior axillary line.

The physical signs in the lateral regions of the chest are normal, except in the right axillary, where the line of hepatic flatness reaches to the sixth rib, and in the left axillary, where the line of splenic flatness reaches to the eighth rib. Posteriorly the physical signs are normal, with these exceptions: Upon the right side the line of hepatic flatness is defined at the seventh rib; upon the left side, just beneath the apex of the scapula, the respiratory murmur is diminished in intensity and exhibits less of the vesicular character than it should. Here the percussion note loses somewhat in resonance.

It may be noted that between the left nipple-line and the left anterior axillary line, about an inch and a half below the level of the left nipple, the percussion note is vesiculotympanitic in character, the tympanitic element being, probably, a contribution from the fundus of the stomach.

Heart.—The heart presents neither enlargement nor shrinking; its sounds are quick and weak. No murmur is evident in the area occupied by the heart and great blood-vessels. Yet it is observed that moderately deep percussion displays a dull note about an inch to the right of the sternum, and extending from the second rib to the fourth rib, where it blends with that of the enlarged liver. But the heart sounds and the heart impulse upon this side of the sternum do not point to cardiac enlargement. The great ease with which the boundary of the right heart is defined can be ascribed to the fact that the enlarged right lobe of the liver has caused some retraction of lung tissue from the cardiac area.

Symptoms.—The patient tells me she is subject to periodical pains that attack her in the epigastric region, over whose whole extent they travel and from which, passing to the left, they encircle the body through the loins and mid-belly. They develop sometimes once a day, sometimes once in two days, and sometimes once in three days. The pains are so severe as to put her in great agony, and they very often end in vomiting. But they do not always stop with the onset of vomiting.

Her stomach retains milk, but solid food, especially toast, is rejected very soon after it has been eaten. The tongue is red; it is sharply pointed at the tip, and over its dorsum lies a thick mass of grayish coating. It is protruded without tremor. The breath is fœtid. The bowels are constipated. The patient is unintelligent, but assures me that the stools have been yellow, except upon two occasions, when they were dark like blood. Pulse 98, small, compressible, regular; temperature 98.5° F.; respiration 20, shallow, regular.

The urine is deep brown in color, and its lower half is dense with urates. It is sharply acid in reaction; its specific gravity is 1.032. The urine becomes reddish-brown and clear when boiled. The addition to it of two drops of strong nitric acid transforms its color to a blackish-brown. Upon gradually pouring the boiled acidified urine from the test-tube, a linear mass of finely granular material is seen pursuing a winding course through a shallow layer of the moving urine. This material may be albumin. There is no reaction to Haines's test for sugar.

TREATMENT.—Ten grains of calomel in one-grain doses every three hours; milk diet.

January 13th.—Last night the characteristic pain developed, and was so long continued that the patient obtained no sleep. The pain was most severe at the umbilicus. In the evening she vomited, and toward morning the pain stopped. The bowels are still constipated. The general physical signs are unchanged. The urine, brought into contact with nitric acid, turns from dark brown to a bluish-green color. Pulse 98, small and compressible; temperature 98.5° F.; respiration 20, regular and shallow. Ordered, two compound cathartic pills; five grains each of potassium bicarbonate and sodium bromide every two hours; milk diet.

15th.—The bowels have moved four times since the 13th, large quantities of loose yellow stools passing away. During the movements abdominal pain developed. The result of the movements has been a lessening of intestinal distention. Now the belly appears less full, and its walls can be easily pressed in. The navel is prominent, and the epigastric region shows a considerable fulness. In the epigastrium the percussion note is now dull—a circumstance to be accounted for by the lessened stretching of the stomach and the presence of the thickened right and left lobes of the liver.

The heart sounds upon the right side are intensified; those upon the left side are neither so intense nor so highly pitched in comparison.

Immediately after the patient had sat up, a water-dropping sound was heard for an instant at the apex-beat.

In the left infrascapular region, within a small area, subcrepitant râles are constant with each respiratory act. Upon the right side, posteriorly, the respiratory murmur is less vesicular than it should be; it is loud and breezy. These characteristics of the respiratory murmur in this part of the chest may be dependent upon the compression of lung tissue made by the enlarged right lobe of the liver. The right hypochondriac region is protuberant. The urine contains an abundance of bilious matter. Microscopically, it exhibits crystals of the urates and large cells. Some of the latter are rounded and others are oval; each possesses a nucleus. Numbers of these cells are colorless or nearly so; others are stained an old-gold color, probably by the bile.

Two drops of blood taken from the thumb were placed upon slides to-day. Each drop was pale and watery-looking, and ran easily upon the slide. The red corpuscles are pale and too few in number. They are, in most instances, so crenated as to look like small stars, and many of them are ovoid, many are pyriform, and many are quadrilateral in shape.

Upon some parts of the slide they have come together in twos in such a way as to resemble dumb-bells.

Those of them possessing a natural shape are of the usual size; but in both drops are observed small round cellular bodies resembling the red corpuscles, except in size. No fibrin fibrils formed upon either of the slides during a period of six hours.

The white corpuscles are relatively too numerous.[*] The patient expresses herself as feeling better and experiences a keen appetite for corn-meal porridge and milk. She has slept well during the past two nights. The upright posture renders her weak and dizzy.

The breath is still foul. Upon some parts of the tongue the coating has thinned, and upon these parts enlarged papillæ are seen. The skin is deeply jaundiced.

Pulse 104, larger in volume, tension increased; temperature 98.5°; respiration 20, shallow.

Ordered: Corn-meal porridge and milk; potassium bicarbonate, five grains every two hours; quinine sulphate morning, noon, and night. The quinine is prescribed for the purpose of lessening the flatus in the stomach and bowels.

17th.—The patient is more jaundiced to-day than upon the 15th. Her urine is stained a deep brown. She has passed an uncomfortable night, a constant pain having played through the small of her back and mid-belly transversely. She is salivated, the mouth being sore in patches, and the breath and saliva are offensive. Pulse 116, running, with increased tension; respiration 30, shallow, regular; temperature 99.4°.

The bowels have moved four times since the 15th, the passages being yellowish in color. The belly is very much distended with gas. The physical signs of the hypochondriac regions are unchanged. The second sound of the heart in the pulmonic area is accentuated; the first sound in the tricuspid area is strong. The sounds of the left heart are weak and at times indistinct.

Beneath the apex of the left scapula a small portion of lung is solidified, the respiratory murmur here being vesiculobronchial, the voice sound exhibiting concentration, and the percussion note being dull. This condition of the lung structure accounts for the accentuated second sound at the pulmonic valves.

Ordered: A sixth of a grain of morphine hydrochloride for the relief of pain; quinine sulphate for the abdominal distention; a compound cathartic pill for more complete emptying of the bowels.

18th.—The patient had two attacks of abdominal pain during the night. The belly is very much distended with gas; still, the abdominal muscles are not resistant to pressure. The physical signs pertaining to the abdomen are unchanged.

The consolidation described as existing yesterday beneath the left scapula has nearly resolved, the respiratory murmur being coarse, vesicular, and interrupted, with subcrepitant râles.

The pulmonic second sound is not now accentuated; the first and second sounds of the left heart have gained in strength. Pulse 104; temperature 98.4°; respiration 15 and 18 alternately, sometimes marked by undue pauses between the third and fourth acts, but generally regular. These modifications of the respiratory rhythm have been induced by the morphine given last evening—a fact attested by the contracted state of the pupils. The patient vomited during the night. Her bowels have moved four times. The stools are diarrhœal in character and possess a natural yellowish color and fæcal odor. The diluted stools, strained through a fine linen cloth, leave yellow fæcal masses of half the size of wheat-grains. These masses are soft and putty-like, and when pressed between two matches reveal a white inside suggestive of milk curd.

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[*] The characteristics of the red blood-cells here described were noted upon slides that had been carried in a "grip" through the frosty air of a seven-mile drive, and upon which an abundant condensation of moisture had occurred.

The rectum is normal in size. Its mucous membrane presents no morbid condition to the sight or touch. The vagina is normal; its membrane is rugous and of pink color. In the fornices a soft fulness is felt encroaching upon the vaginal dimensions. These fulnesses are not doughy; they are of such consistence as demonstrates a down-pressing of intestines distended with gas. The cervix uteri is retroverted; it projects into the vagina anteriorly to the extent of but half an inch, and posteriorly seven-eighths of an inch. From before backwards and from side to side, the cervix appears to be undersized. The fundus cannot be felt, owing to the abdominal tenderness rendering bimanual examination impossible, but it is evident that the uterus as a whole lies lower in the pelvis than it should. The tongue is furred with a milk coating. The breath is very foul.

Ordered: Sodium salicylate, five grains three times daily; milk and corn-meal porridge.

19th.—The patient has suffered from severe abdominal pain during the whole of the past night and the whole of this forenoon. The pain passes from the small of the back through the hypogastrium. It has been accompanied with greatly increased meteorism and some rigidity of the left rectus abdominis muscle. Vomiting occurred twice during the night. She is more jaundiced than ever, her face wears a worried expression, and she cries with the pain.

Her bowels have moved once since yesterday, the stools being more solid than they have been since the 11th. They are yellow in color. The urine is scanty and deeply jaundiced.

All the physical signs are unchanged to-day, except that there exists an accentuated second pulmonic sound standing in relationship with a small patch of solidified lung under the second left rib below the centre of the clavicle.

Pulse 124, tense, but small and running; temperature 102°; respiration 21, with slightly disturbed rhythm.

Ordered: Sodium salicylate, five grains three times a day.

20th.—The patient is free from pain this morning. She lies upon her back with her lower extremities drawn up and flexed. The belly is fully distended with gas, but the muscles of the belly are not rigid, and deep pressure upon them causes no pain.

It is noted that the enlargement at the left eighth costal cartilage has increased in size, being now four fingers wide, and projecting in pyramidal shape toward the navel to the extent of three finger-breadths. The heart sounds possess the same characters as they did yesterday. A streak of lung tissue between the left scapular apex and the posterior axillary line returns a bronchovesicular murmur and subcrepitant râles.

There is still some pulmonary solidification below the left clavicle, but it is inconsiderable in area and its signs manifest rapidly occurring changes toward resolution.

The bowels have not moved in the past twenty-four hours. The skin is deeply jaundiced, and the urine is colored a deep brown from the presence of bile in it.

Pulse 100, small and tensionless; temperature 99.4°; respiration 20, regular and longer-drawn.

The tongue is covered with a ragged milk-and-epithelial coat, and the breath is offensive.

To continue with the sodium salicylate and to take milk-diet.

22d.—All signs and symptoms are unchanged. The patient has had much general abdominal pain during the past night. Her bowels have moved once since yesterday, the stools being solid and of a yellow color.

Pulse 100, small in volume, regular; temperature 99.4°; respiration 19, regular. Treatment unchanged.

24th.—The patient has experienced no pain since the 22d. To-day she expresses herself as feeling quite well and being hungry for corn-meal porridge. Her skin and sclerotics are very slightly less jaundiced than they were forty-eight hours ago. The abdomen is exceedingly tympanitic, but, with the patient in the dorsal posture, it is symmetrical. The percussion note is clear—tympanitic over all regions of the belly, except the right hypochondriac and the epigastric, where it is dull-tympanitic. Upon deep percussion, the epigastric note becomes high-pitched-tympanitic. The clearness of this note, in face of the fact that parts of the enlarged right and left lobes of the liver lie within it, may be attributed to the blending of the gastric and colonic notes.

The right lobe of the liver at the eighth rib extends three finger-breadths toward the navel; at the tenth rib, four finger-breadths toward the crest of the right ilium. The enlarged end of the spleen at the eighth left costal cartilage has neither increased nor diminished in size. The percussion note over the eighth, ninth, tenth, and eleventh left ribs exhibits the same qualities as were apparent upon the 11th inst.

Pulse 88, medium in volume; temperature 98.5°; respiration 18, regular and the breaths more deeply drawn.

The physical signs pertaining to the heart have not changed, except those relating to its sounds, which are natural in character in all areas. Over all regions of the chest the respiratory sounds have resumed their natural pitch, volume, and intensity.

The urine is less bile-tinged, and it is possible to see the bottom of the vessel through it. Its reaction is neutral; its sp. gr. is 1.030. It contains no undissolved urates, no albumin, no sugar. It turns violet in color when brought into contact with nitric acid. Treatment unchanged.

26th.—The patient appears much improved this morning. The skin has very perceptibly paled, and the itching completely subsided. The abdomen is but little distended; its walls are soft and yielding.

The right lobe of the liver reaches but two finger-breadths below the right tenth rib, and but one finger-breadth below the right eighth rib. At the latter point its margin is separated from the navel by an interval of about three inches. The enlarged end of the spleen is now defined as a slender resistant mass detected only upon careful examination at the cartilages of the left seventh and eighth ribs. The heart sounds are normal in pitch and tone. The tongue is much cleaner, its clear red membrane showing in numerous patches among masses of light coating. It is firmly protruded. The bowels have moved once since the 24th. The stools were well-formed and naturally colored. The urine is less deeply reddened and quite transparent. The patient has had no pain since the 24th. She is constantly hungry. Pulse 80, volume and tension increased, regular; temperature 98.5°; respiration 19, regular and long-drawn. Treatment unchanged.

28th.—The patient is still without pain. Her skin is very much less jaundiced; it does not itch. The belly is almost free of distension, and it is not tender to pressure. The right lobe of the liver is not so prominent as it was upon the last examination.

The line of thoracic hepatic dullness exists at the fifth right rib. The enlarged spleen is more easily defined at the eighth left rib than it was upon the 24th inst. The respiratory murmur over the left infraclavicular and mammary regions is much intensified and elevated in pitch—a change probably dependent upon a localized bronchitis whose only other sign is an indistinct sibilation two inches above the left nipple. The bowels have moved once since the 24th, the stools being solid and yellow. The urine is deep-red in color, but transparent. Pulse 70, small and regular; temperature 98.5°; respiration 18, regular. Treatment unchanged.

February 1st.—The patient feels so well that she insists upon being permitted to move about her room. She craves a varied diet. Her skin is whitening, but the sclerotics are yellow. The belly is but moderately distended. The urine appears no more red than it would in the condition of lessened systemic supply of water.

The tongue is completely clean; its papillæ have become reduced in size; its dorsum and tip are deep-red in color.

The breath is not so offensive as it has been. Pulse 76, regular; temperature 98.5°; respiration 18. Treatment unchanged.

3d.—The patient vomited once last night. Before vomiting she experienced stomachal distress. To-day she is tender about the navel. The abdomen is distended. The gastric symptoms have been induced by the patient's eating a large piece of boiled beef and several slices of buttered toast thirty-six hours ago. The tongue is covered with a thick gray fur, and the breath is very foul. The urine is loaded with bile and urates. The skin and sclerotics are not more deeply jaundiced than they were upon the 1st inst. Pulse 88, small and weak; temperature 98.5°; respiration 20. Treatment: Milk-diet; sodium salicylate, five grains three times a day.

4th.—The jaundice has increased. The urine is blackish-brown in color, and contains a deposit of urates. The belly is not quite so much filled with gas as it was yesterday. The patient is very anæmic.

The margin of the liver below the ribs presents no change in size or consistence. In the thorax the line of hepatic dullness is, anteriorly, in the fourth intercostal space; in the anterior axillary line, at the sixth rib; in the axillary region, at the seventh rib; in the infrascapular region, at the eighth rib. At the posterior axillary line, the line of hepatic flatness arches itself into a cone-shaped area about an inch and a half wide and an inch in height. Pulse 76, full and firm; temperature 98.5°; respiration 22. The bowels are constipated. Treatment: Restriction of diet to milk, broth, and cornmeal porridge; sodium salicylate, five grains three times a day.

6th.—The condition of the patient is not changed, except in this: The urine is nearly free of bile. There is a pause of considerable length after the completion of each third respiration; the three respirations following this pause are of unusual depth. This respiratory disturbance is not dependent upon the use of morphine, the patient not having had any of this drug for many days.

Treatment, same, with the addition of a minim of fluid extract of ipecacuanha three times a day.

8th.—The general conditions are unchanged. The belly is not much distended with gas. The right lobe of the liver, in its accessible parts, has shrunken a fingerbreadth. The urine is more deeply bile-tinged than it was on the 7th. Pulse 66; temperature 98.5°; respiration 18. Treatment: Quinine sulphate, a grain three times a day; sodium salicylate, five grains three times a day.

10th.—The general conditions are unchanged. The right lobe of the liver is felt three finger-breadths below the right tenth rib. It is stiff and ridgy to the touch. The urine contains a considerable amount of bile. The tongue is clean and red. Pulse 80, full, firm, and regular; temperature 98.5°; respiration 20. Treatment unchanged.

12th.—The general conditions are unchanged. The posterior limit of splenic dullness extends from the ninth rib at the apex of the left scapula downwards over the tenth and eleventh ribs. Treatment unchanged.

14th.—The patient feels stronger, presents a brighter look, and moves with greater vigor than she has at any time since my attendance upon her began. Yesterday she had a nose-bleed that occurred spontaneously. Pulse 78, regular; temperature 98.5°. Treatment: Quinine sulphate, three grains three times a day; sodium salicylate, five grains three times a day.

18th.—The patient to-day feels strong. She is cheerful, and her facial expression is bright. She has had no pain since the 14th. Her belly is distended with gas. Her tongue is clean, and her appetite is ravenous. Her skin is jaundiced to a less degree than it has yet been. The right lobe of the liver is felt but little more than two finger-breadths below the tenth right rib. The end of the spleen at the eighth left costal cartilage has become narrower and shorter. The splenic flat percussion note still extends to the eighth rib in the left axillary region. Pulse 78, full and firm; temperature 98.5°. Treatment unchanged. The dietary has been extended so as to include boiled fresh fish.

23d.—The patient's skin and sclerotics are paler than they have heretofore been. The tongue is fairly clean. The belly is quite enlarged with gas, but to a lesser extent than it has been upon my former visits.

The heart and lungs are normal. The oral and labial mucous membrane has acquired a faint blush. The bowels move only when acted upon by a purgative. The line of hepatic dullness is now at the fourth rib anteriorly; at the sixth rib laterally; and at the seventh rib posteriorly. The lower margin of the right lobe of the liver is not so easily palpable as it was upon the 18th. The percussion note of the spleen is dull, instead of flat, at the eighth rib in the axillary region. The end of the spleen at the eighth costal cartilage has become much reduced in size.

Treatment: Quinine sulphate, three grains before each meal; ammoniocitrate of iron, liquor arsenicalis, and liquor strychniæ after meals.

March 10th.—From February 23d till last evening, the patient had had a comfortable experience. She had gained strength sufficient to enable her to walk about her room, had possessed an excellent appetite, and was free from pain. Last evening severe pain developed in the epigastrium. It was sharp, continuous, and localized, and was associated with four attacks of vomiting of food, mucus, and bile. To-day tenderness to pressure is present over the whole epigastric region. The abdomen is bloated with wind. The sclerotics are jaundiced, the mucous membrane of the lips is pale, and the skin is pale-yellow. The physical signs pertaining to the liver and spleen are unchanged. The patient has lost flesh. Pulse 163, small and tensionless; temperature 98.5°.

Treatment: Bismuth subnitrate, five grains every two hours; spirit of chloroform and tincture of hyoscyamus for relief of pain; broth diet.

21st.—The signs and symptoms of the case are unimproved. The patient is quite emaciated. Her stomach is rebellious to all food except milk. The belly is stretched with gas.

The liver and spleen occupy the same areas of the chest and belly as they did upon the 10th inst. The percussion note is dull in the flanks, and from either a fluctuation wave can be started by a smart tap upon it with the hand. Menstruation was resumed upon the 18th inst., and is still in progress. Pulse 124, with almost inappreciable volume; temperature 98.5°.

Treatment: Three grains of calomel three times a day.

April 28th.—The patient was visited to-day. She had undergone another attack of acute gastritis, of which the symptoms were gastric pain and tenderness and vomiting. The attack developed spontaneously; at least, no history of indulgence in unusual food can be adduced. The patient is deeply jaundiced; her belly is excessively distended with gas, and this distension is so great that the navel has risen an inch above the wall of the belly, and contains a minute knuckle of intestine. Her lips are pale, and much flesh has fallen away since my last visit.

The lungs are normal. The left side of the heart scarcely gives evidence of its existence: no impulse is felt in the apex region, and in this region the apex beat is but faintly discernible as a tap beneath the bell of the stethoscope. In the centre of a line drawn from the right nipple to the tip of the xiphoid appendix, the first sound of the heart is heard as a high-pitched short stroke that is audible in a line extending upward to a point near the second right rib. At the central point between the right nipple and the extreme end of the xiphoid appendix the palpating finger encounters a weak stroke of the heart. The heart's action is rapid and fully illustrates gallop rhythm. The second sound of the heart is in all the areas so weak as to be represented by the merest tick, a tick that recurs so quickly as to confuse the ear. The margin of the liver extends four finger-breadths below the right eleventh rib, and the liver flatness is marked at the fourth right rib in the nipple line. The spleen flatness exists at the eighth rib in the left axilla and extends from the apex of the left scapula downward to the eleventh rib. The pyramidal enlargement of the spleen in the left hypochondrium is observed to have become more extended from side to side. Pulse 126, small and tensionless; temperature 102°. Treatment: Grain doses of calomel hourly for six hours; milk-diet.

May 5th.—The acute gastric symptoms have subsided. The patient has not vomited during the past nine days, and the epigastrium is less tender to the touch than it was upon the 28th ult. The belly is not so stretched with gas, and its walls can be easily pressed in. With absence of extreme tympanites, the presence of an intra-abdominal effusion is particularly evident. The patient has become considerably emaciated, her face being sunken and her hands claw-like. Her skin is pale-yellow, and this coloration, combined with her sunken eyes and the pallor of her epithelium-ruffled lips, gives her a corpse-like look. The urine is bile-tinged to a dark-brown color. Pulse 90, firm and regular; temperature 98.5°.

The blood is pale and thin. The red corpuscles are extremely small, and are less numerous than they should be. The only deformity they present is crenation, and this characterizes but few of them. No white corpuscles were distinguished upon the slide. The physical signs of the hypochondriac regions are unaltered. Treatment: Two minims of Fowler's solution after food, three times a day.

7th.—No change in symptoms and physical signs is observed to-day. The menses developed upon the 5th inst., and the flow is still going on in moderate amount.

Treatment: Four minims of Fowler's solution after meals, three times a day.

13th.—No change in symptoms and physical signs is observed to-day, except that the tympanites has so much subsided as to render the presence of an intra-abdominal effusion particularly evident. The slightest tap on one side of the belly sets a fluctuation-wave moving to the opposite side, where its impact can be easily felt. A persistent and somewhat profuse flow has been in progress since the 5th inst. The blood is of good color. The menorrhagia may have been established by the arsenic administered.

25th.—Information has been received that the patient died this morning. There had been no change in the symptoms, and death occurred easily, the patient being conscious till the last. A post-mortem examination was not permitted.

Note.—The patient's left eye was strabismic, and in the pupillary centres of both eyes existed the markings of an intra-uterine iritis (syphilitic). Her sister, older than herself, presents the same pupillary markings as the patient, and, in addition, possesses a suspiciously deformed nose. She has been the subject of one miscarriage. Her only child is physically and mentally sound. A brother, aged fourteen years, is a hunchback and much undersized in muscular and osseous development. Although he was "born so," it is impossible for me to say whether the deformities are rachitic or syphilitic; at any rate, the lad shows a fine philosophical mind. He is quite anæmic and thin.

A brother, aged twelve years, is the subject of a chronic suppurative inflammation of the middle ear—a condition that had its origin in the irritating (*infective*) influences of pharyngeal adenoids.

The father, aged seventy years, is a robust, well-formed man, intellectually quick and physically competent. His lower eyelids are everted and granular.

The mother died at the age of sixty years, of an affection lasting some months and termed "jaundice."

It is to be regretted that this case was not observed by one of larger clinical knowledge than mine; its phases are most interesting.

The Treatment of Pneumonia by Iodide of Potassium.—Teske (*Die Aerztl. Praxis,* March 1st; *Revue de Thérapeutique medico-chirurgicale; Revue médicale de Normandie,* April 25th) has records of upwards of 300 cases of pneumonia treated by Priessnitz's compressor envelopments, applied every two hours, and the administration of fifteen drops every three hours of the following mixture:

℞	Iodide of potassium, Essence of bitter almonds,	of each. . . 112½ grains.
	Morphine.	3 grains.

GLANDULAR COMPLICATIONS OF
ACUTE FOLLICULAR AND ACUTE SUPPURATIVE AMYGDALITIS
WHEN ACCOMPANIED WITH GRIPPE.*

BY WENDELL C. PHILLIPS, M. D.,

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DURING the past winter and spring, while the grippe has been so prevalent, follicular and other tonsillar affections have been observed to be of much more frequent occurrence than usual. The same conditions may have been present also in other sections of the country, and if so, it will be interesting to know whether the complications about to be described have been seen with relative frequency. I refer to glandular enlargements, both simple inflammatory and suppurative, which seem to have resulted from absorption of infection from the tonsils. The severity of these inflammations and the fact that the deeper glandular structures have been involved, and also the fact that I do not recall having seen this variety to any extent heretofore, have led me to call the attention of the society to it, hoping that others who have had still larger experience may be able in the discussion to throw further light upon the subject.

Not only have these cases occurred in my own practice, but I have learned of many others from conversations with general practitioners, and all seem to agree that they have been found only in those patients who have suffered from the grippe. It is also believed that nearly all have first had follicular amygdalitis, and a few have suffered from suppurative amygdalitis.

The disease has in some cases involved the superficial cervical glands, and in many the deep cervical glands have been the seat of the inflammatory process. The history of the cases is the usual history of the grippe with follicular amygdalitis, the patient's apparent recovery being followed by pain in the side of the neck, a very extensive swelling, and rise of temperature. In about half the cases observed the swelling has suppurated; in the others it has finally subsided without suppuration.

An operation was necessary in the suppurative cases, and in two it was found necessary to dissect out the entire gland. In only one case have I been able to secure a satisfactory microscopical examination of the pus. In this case streptococci of the long variety were present. In one patient whose tonsils were not previously enlarged in the slightest degree, an attack of grippe was followed by follicular amygdalitis and subsequently by an attack of this form of glandular complication. I have come to regard an attack of inflammation accompanying the grippe as a causative agent in these glandular inflammations.

So far as my observations have gone, these attacks have been no respecters of person, age, or condition; adults, however, have seemed to be the more frequent victims of the disease. It has seemed to me that the symptoms of the cases observed this winter have been of much greater severity than those of the simple superficial secondary glandular inflammations which we often see resulting from attacks of amygdalitis in young children, which usually subside under the use of iodides.

I will give the history of a single case which may be taken as a type of those that I have attempted to describe, and not burden you with the histories of further cases.

Dr. B——, was taken on the 31st of March with a chill, a temperature of 103° F., and severe pain in the back, followed by tenderness in the right side of the throat and a little swelling. He went to bed immediately and took quinine freely, and in three days felt much better. No actual examination of the throat was made at this early stage, but the slight tenderness and soreness would indicate an attack of follicular amygdalitis. He was up and about after this time, and states that a small lump could still be felt at the side of his throat which did not entirely disappear. On the 14th of April the swelling suddenly began to increase, with severe pain and tenderness, and the temperature rose to 104°. At this time the first throat examination was made and revealed nothing except a slight congestion of the entire naso pharynx and a very small amount of prominence of the right tonsil, due no doubt to the pressure of the swollen gland from without. This condition rapidly grew worse until the 19th, when, under general anæsthesia, a deep-seated abscess was opened and the entire diseased gland curetted. About an ounce of pus was obtained, and the microscopical examination of it revealed large numbers of streptococci of the long variety. After this time the patient made a rapid and perfect recovery.

In the city of New York follicular amygdalitis is a comparatively common disease and is seen frequently among all classes, but it has only been during the grippe season just passed that practitioners have observed so many of these peculiar glandular affections, and it is the common belief that all these cases are directly the result of the grippe.

A cursory examination of the recent books upon throat diseases throws no light upon this question, although some mention is made in several of secondary glandular inflammations of the more simple variety.

Bosworth* says, "The disease being of an acute and infectious character, we should naturally expect that the cervical glands would be involved, and, while it does not occur in every case, it is practically the rule that they are abnormally sensitive and in many cases enlarged. Carter has observed a case in which these glands afterward suppurated."

It has not been uncommon to find in the pus of tonsillar suppuration staphylococci and pneumococci. Fraenkel† describes the existence of staphylococci.

It is interesting to speculate upon the method of introduction of the specific poison into the superficial and deep cervical glands. The general consensus of opinion is that the lymphatics are the poison-carriers.

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*Read before the American Laryngological, Rhinological and Otological Society at its sixth annual meeting.

*Bosworth, *Diseases of the Nose and Throat*, p. 167.

†Fraenkel, *loc. cit.*

According to Bosworth,[*] the lymph-vessels form a network which allows of pressure in the submucous tissue and pressure in the deep layers, so there is no communication with the small lymphatic glands. On the right side the lymphatic channels empty into the right ductus lymphaticus and on the left into the receptaculum chyli; and, further,[†] "With reference to the termination of these vessels in the tonsils, Schmidt believes that they open by their deep extremity into the reticulum of the plain follicles; Retterer, however, has shown that the capillary network really occupies the entire follicular mass, forming a system of closed canals which open neither by their extremities nor by stomata. There can, therefore, be but little doubt that the infection reaches these glands through the lymphatics, and we therefore accept this view." It will be interesting to know the experiences of other observers.

Therapeutical Notes.

For Varicose Ulcers.—The *Indépendance Médicale* for June 27th attributes the following to Schwarz:

℞ Powdered iodoform,
Powdered salol,
Subnitrate of bismuth,
Powdered charcoal,
Powdered cinchona,
Powdered benzoin, } equal parts.
M.

To be used as a dusting powder. This powder may be applied to the cervix uteri.

For Gravel.—The *Journal de médicine de Paris* for July 8th gives the following:

℞ Bicarbonate of sodium	90 grains;
Benzoic acid	30 "
Phosphate of sodium	150 "
Boiling water	375 "

Dissolve, filter and add distilled canella water 3,000 grains. Two tablespoonfuls to be taken thrice daily in old standing uric gravel.

For the Chronic Fever of Tuberculosis.—The *Journal des Practiciens* for April 28th gives the following as the alcoholic potion of Jaccoud:

℞ Red wine	1,500 grains;
Cognac	600 "
Syrup of bitter orange peel	450 "
Tincture of canella	120 "
Extract of cinchona	45 "

M.

For Tetanus.—The *Indépendance Médicale* for June 27th ascribes the following to Gazdhar:

℞ Sulphate of eserine	¾ of a grain;
Distilled water	150 grains.

M.

One cubic centimetre (16 minims) for a subcutaneous injection.

For Cancer of the Stomach.—Thornton (*Progressive Medicine*, December, 1899; *Medical Chronicle*, June) recommends the following prescription to relieve pain, control vomiting and prevent putrefaction in cases of gastric cancer:

℞ Bismuth subnitrate	4 drachms;
Carbolic acid	16 minims;
Chloroform water to	3 ounces.

M.

A tablespoonful before food.

Oxalic Acid as an Expectorant in Asthma and Bronchitis.—According to the *Gazette hebdomadaire de médecine et de chirurgie* for June 10th, Dr. V. Poulet prescribes with excellent effect for asthma, capillary bronchitis, and even tuberculous bronchitis the following:

℞ Oxalic acid	30 grains;
Infusion of tea	2,850 "
Syrup of bitter orange peel	1,125 "

M.

A tablespoonful hourly to relieve distress, suffocation and cyanosis.

For Otorrhœa.—The *Gazette hebdomadaire de médecine et de chirurgie* for June 10th ascribes the following to Hinton:

℞ Goulard's extract	20 drops;
Dilute acetic acid	6 "
Wine of opium	20 "
Distilled water	450 grains.

M.

Drop into the ear several times daily ten drops of this mixture, previously warmed.

The Treatment of Herpes Preputialis.—The *Journal de Médecine de Paris* for July 8th recommends lotions of weak lead lotions, vinegar water or aromatic wine. The small ulceration should be powdered with either bismuth, talc or starch. If the ulcerations persist they may be touched either with a weak solution containing from six to eight grains of silver nitrate to 300 minims of water, or with an ointment containing similar proportions of the salt and vaseline. In order to prevent a return, a piece of absorbent cotton, either dry or moistened with tonic and astringent substances, should be applied between the gland and the prepuce. In idiopathic herpes an emetic, or an emetic cathartic, should be administered by way of general treatment. The diet should be non-exciting and alcohol must be prohibited.

For Acute Orchitis.—Dr. Valentine Buchel (*Louisville Monthly Journal of Medicine and Surgery*, July) says that morphine should be administered in sufficient quantity to relieve pain. The following prescription has proved very satisfactory in his hands:

℞ Tincture of aconite	2 drachms;
Guaiacol	1 ounce;
Glycerin	3 ounces.

The scrotum is painted with this solution, and a piece of gauze saturated with it is placed over the affected part. Over this a layer of cotton is applied, and over the cotton a piece of oiled silk, linen, or gutta percha. The testicle is then supported by a suspensory bandage. This application is made morning and night.

As good as the foregoing may be mentioned the old-fashioned tobacco poultice, which can be improved upon by mixing with tobacco or Scotch snuff sufficient glycerin or hot alcohol to make the mass the consistence of batter.

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[*] Bosworth, *Diseases of the Nose and Throat*, p. 8.

[†] Bosworth, *op. cit.*, p. 19.

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LOVE AT FIRST SIGHT IN PATHOLOGY.

IT would be unjust to set down as pathological every instance of love at first sight, even when it gives rise to demonstrations that call for resentment, but it seems to be an occasional outcome of neurasthenia or some other neurotic disorder, as is shown by Dr. Féré, of the Bicêtre, in the July number of the *Revue de médecine.* It is more common in women than in men, he states, and it is very rarely reciprocal, although Shakespeare depicts it as of that character in the case of Romeo and Juliet, and in real life it was exemplified by Garibaldi and his wife. According to M. Féré, Garibaldi thus describes his first encounter with Anita: "We both paused, silent and in ecstasy, looking at each other as if not for the first time and as if seeking to call up a reminiscence. Finally I saluted her, saying: 'You must be mine.' I spoke but little Portuguese, and I pronounced these presumptuous words in Italian. However, I was magnetic in my insolence. I had tied a knot that only death could loose, I had found a forbidden treasure, but a treasure of great price." This description, says M. Féré, is interesting not alone as showing the suddenness and the imperative quality of the attraction, but as establishing the connection between the irresistible impulse and the phenomenon of false memory, the apparent remembering of an occurrence as having taken place before, which happens to many persons now and then, but is frequent with neurasthenics.

Both the conception of love at first sight and the remembrance of the scene, it seems, may constitute the intellectual aura of an epileptic spasm or of an attack of vertigo. M. Féré relates the case of a neurotic young man who fell violently in love with a married woman who was visiting his mother. This young man was frequently the subject of false reminiscence, and as time went on it was oftener and oftener the precursor of vertigo. On the occasion of his somewhat turbulent avowal of love for his mother's guest he declared that he had been notified in a dream that she was coming, and he felt that he could not be put off. In vain did his mother assure him that the lady was married and the mother of a family, that she loved her husband and children, and that she was of nearly twice his own age. He suddenly became pale and fell in a convulsion. He was finally brought to realize that his passion—one of pure love, and not a mere paroxysm of sexual excitement—was morbid, but he still clung to the conviction that he had been warned of the lady's visit in a dream, and he avoided meeting her again for fear that he would be led into some act of extravagance. In another instance a middle-aged man, having fallen into the habit of following strange women in the street, was accidentally intercepted on one occasion by a woman who unexpectedly crossed his path. He immediately conceived a violent passion for this woman and made her an improper proposal. Her reply astonished him and brought him to his senses, but he was at once attacked with vertigo, and the incident was followed by an aggravation of the neurasthenia with which he had suffered.

PUERPERAL FEVER.

A RISE of temperature in a lying-in woman is always a disquieting occurrence. It may denote true puerperal fever due to streptococcous infection of the uterus, it may proceed from infection with less deadly germs, or it may announce a comparatively harmless inflammation. It is imperative that its cause be ascertained with certainty at the earliest possible moment, in order that, in case there is streptococcous infection, measures may be taken at once to meet the situation. At a meeting of the Section in Obstetrics and Gynæcology of the Congress of German Naturalists and Physicians, reported in the *Wiener Klinische Wochenschrift* for July 12th, Dr. Winternitz, of Tübingen, narrated the results of a series of examinations of the lochial secretion, and it appears that such examinations are the only sure means of establishing an early diagnosis of puerperal fever. If the streptococcus is found, the patient may be pronounced as having puerperal fever; if it is not found, the physician's apprehension will be much relieved, for he may with considerable confidence infer that the febrile symptoms are due to some less destructive infection or to an incipient local inflammation. So mild an affection as herpes may occasionally be announced by a slight rise of temperature, and, indeed, there are instances in which the thermometer, which Winternitz calls the most delicate of reagents, gives an alarm the cause of which is never discovered. The uterine secretion itself must be examined, not that which is found in the vagina, and the examination is bacteriological. Hence the multiplication of stations at which trustworthy bacteriological investigations may be made is a matter of the utmost importance.

If the case is found to be one of streptococcous infection, intra-uterine treatment has to be resorted to at once. Dr. Döderlein, also of Tübingen, spoke at the same meeting with regard to the treatment. While he held that we as yet knew of no agent that could be entirely depended upon to check the infection, he stated that he employed irrigation of the uterine cavity with ninety-six-per-cent. alcohol. For the prevention of the disease he advocated the use of rubber gloves by the physician. These gloves, he said, would bear repeated boiling in a solution of soda for ten minutes at a time. Soft rubber, as is well known, is a material that rapidly becomes filthy beyond redemption if it is not properly cared for, and frequent boiling of gloves employed in obstetrical work would be requisite.

THE TENEMENT HOUSE MEDICAL SERVICE IN BROOKLYN.

In its issue for July 25th the *Brooklyn Eagle* again calls attention to the inadequacy of the corps of physicians provided by the board of health for visiting the sick poor in the borough of Brooklyn. It seems that the physicians were assigned to Brooklyn after it had become known that the infant mortality had notably increased in that borough, so notably that the rate exceeded that of Manhattan. According to the *Eagle's* article, twenty-five or thirty would be needed to do the work as efficiently as it is done in Manhattan, where there are forty. It is intimated in the article that the health officials of the city, while they have a general idea that Brooklyn is territorially larger than Manhattan, do not seem to realize that there is a very large tenement house population to the east of the East River.

It is to the interest of the entire municipality that the health of its inhabitants, no matter in what borough they are living, should be looked after most thoroughly. It is not to be disputed that most infants, however sick they may be, can be taken to a dispensary daily without detriment, but to take them there would in most instances involve the loss of half a day's work by the mother if she attended to the matter herself, and she is the fittest person to do it. It is only exceptionally that the poor can bring themselves to bear such a loss until the child's condition has become so manifestly grave that its restoration to health is a task of great difficulty, if not an impossibility. The system of visiting physicians is undoubtedly superior in efficiency to the dispensary plan. Many of the dispensaries, it is true, have visiting physicians on their own staff, but their number is small; the visiting medical corps provided by the board of health, in conjunction with the excursion facilities afforded by St. John's Guild and Mr. Straus's sterilized milk charity, is the greatest agency we have in New York for preserving and restoring the health of the children of the tenement houses, and it is among those children, as everybody knows, that disease is most rife in summer. We quite endorse the *Eagle's* plea for a decided increase of the Brooklyn force.

THE BESIEGED ENVOYS IN PEKING.

It is noteworthy that the first authentic information concerning the condition of the besieged legations in Peking comes from medical sources. According to press despatches Dr. George Ernest Morrison, the correspondent of the *London Times,* and Dr. Robert Coltman, Jr., the staff correspondent of the *Chicago Record,* have succeeded in detailing to their respective papers accounts of the condition of things and the happenings in Peking. According to Dr. Morrison's report under date July 21st the general health of the community was excellent. Dr. Morrison states, according to the *Sun* for August 2d, that the hospital arrangements are admirable, and that one hundred and fifty cases have passed through the hospital, none of them being septic. Among the wounded is Dr. Lippitt, an American surgeon. Dr. Coltman, according to the *New York Times* for August 2d, writing also on the same date of July 21st, says that the losses of the besieged are sixty killed and seventy wounded. Dr. Morrison gives them as fifty-six killed, of whom seven were Americans, and one hundred and thirty-eight wounded. The general confusion, however, renders such discrepancies easily understandable.

THE SENSE OF SMELL AS AN AID TO DIAGNOSIS IN TUBERCULOSIS.

The *Nouveau Montpellier médical* for June 24th says that all clinicians are acquainted with the special odor of a confined space occupied by many subjects of confirmed tuberculosis. Professor Ferran, of Barcelona, in a recent communication to the *Bullétin médical* of unnamed date shows that this odor is produced through the agency of a saprophytic form of Koch's bacillus, and that this characteristic can be made use of to diagnosticate tuberculosis from sputa especially poor in tubercle bacilli. M. Ferran's procedure is as follows: He encourages in the sputum or other products of tuberculous ulcerations the reproduction of this saprophytic bacillus which accompanies the bacillus of Koch and secretes a considerable quantity of spermine. To effect this he takes horse's, mule's, or sheep's serum, preferably the serum of sheep immunized by means of this spermine-producing bacillus. He mixes in a sterilized vessel ten cubic centimetres of serum with three or four cubic millimetres of suspected sputum, and leaves the whole exposed to the air in a surrounding temperature of 98.6° F. At the end of thirty-six hours, and sometimes earlier, on bringing the nostrils near to the surface of the serum, the odor of human semen, due to the spermine produced by the bacillus, is clearly perceptible. According to Ferran, this bacillus is inseparable from the bacillus of Koch. This method is said to give positive results even in cases in which the bacillus of Koch eludes microscopical examination. On the other hand, when the sputum does not come from a tuberculous subject the odor of spermine is not produced. The constancy of Ferran's results calls for a thorough investigation, as, if they can be substantiated, the observation is of great practical value.

THE INTERNATIONAL VALUE OF NATIONAL MEDICAL SERVICES.

The international philanthropy of the medical departments of the various armies and navies of the civilized world is well exemplified in press despatches from Colon, wherefrom we learn that in the recent battle between the government and the revolutionary party in Colombia the British cruiser *Leander* was actively engaged in affording medical aid to the wounded. As the number of killed and wounded is stated to have exceeded five hundred, the assistance from the *Leander* must have been very valuable.

ICE IN ENGLAND.

It is satisfactory to learn from the *Sun* for August 2d, citing the *Boston Herald,* that according to the report of United States Consul Halstead at Birmingham, England, the clamor of Americans for ice is at last having an effect in England in stirring up the English people to an appreciation of its necessity. It can now be found in all first-class hotels, and even the smaller hostelries in minor places acknowledge its importance by apologizing for not having it. The march of events, it is to be hoped, will have the effect of rendering the apologies unnecessary by and by.

A GRUESOME TRUST.

According to a Chicago dispatch printed in the *Evening Sun* for July 31st, there is a cadaver trust in Chicago. The fact came out in the course of a trial turning upon an allegation of fraud practised upon several life insurance companies by representing a corpse obtained from the trust to be the body of a man who was and is still living. The price demanded for the corpse was $50, and the undertaker paid it. So it seems that criminals as well as the rest of mankind must wrestle with the trust question.

DESTITUTION AND DISEASE AT CAPE NOME.

Apparently to disappointment in the matter of making fortunes are to be added destitution and disease as elements in the lot of thousands of people who have flocked to Alaska with eager expectation. Captain Tuttle, of the revenue cutter *Bear,* is reported in the *New York Times* for July 31st as having given in an official report a pitiful account of the ravages of typhoid fever and small-pox. He regards the situation along the whole coast as very serious.

ACTING ASSISTANT SURGEONS FOR THE ORIENTAL SERVICE.

It is stated that a number of acting assistant surgeons are to be appointed on the army medical corps for service in China and the Philippines, and that the limit of age required of applicants is forty years. Our impression is that heretofore the age limit has been lower than this. If that is the case, we must express our hearty approval of the change.

ITEMS.

Infectious Diseases in New York.—We are indebted to the Sanitary Bureau of the Health Department for the following statement of cases and deaths reported for the two weeks ending July 28, 1900:

DISEASES.	Week end'g July 21		Week end'g July 28	
	Cases.	Deaths.	Cases.	Deaths.
Typhoid fever	26	11	25	13
Scarlet fever	60	5	60	3
Cerebro-spinal meningitis	0	9	0	7
Measles	120	23	121	8
Diphtheria	154	29	158	23
Laryngeal diphtheria (croup)	3	2	5	4
Tuberculosis	236	181	225	144
Chicken-pox	5	0	5	0
Small-pox	0	0	0	0

Marine-Hospital Service.—*Official List of Changes of Stations and Duties of Commissioned and Non-Commissioned Officers of the United States Marine-Hospital Service for the Seven Days ending July 26, 1900:*

Magruder, G. M., Surgeon. Granted leave of absence for fourteen days.

Wertenbaker, C. P., Passed Assistant Surgeon. To rejoin station at Wilmington, N. C., and upon being relieved by Surgeon T. P. Perry, to proceed to New Orleans and assume command of the service, relieving Assistant Surgeon J. W. Schereschewsky.

Schereschewsky, J. W., Assistant Surgeon. Relieved from temporary charge of the service at New Orleans, and, upon arrival of Passed Assistant Surgeon C. P. Wertenbaker, directed to report to him for duty.

Bailey, C. W., Acting Assistant Surgeon. Granted leave of absence for three days.

Fisher, A. W., Acting Assistant Surgeon. Granted leave of absence for fifteen days during the month of July.

Stearns, W. L., Hospital Steward. Granted leave of absence for twenty-three days from August 6th.

Holsendorf, B. E., Hospital Steward. Granted leave of absence for thirty days.

Promotion.

Holsendorf, B. E., Junior Hospital Steward. Promoted and appointed senior hospital steward.

Marine-Hospital Service Health Reports.—The following cases of small-pox, yellow fever, cholera, and plague were reported to the surgeon-general during the week ending July 26, 1900:

Small-pox—United States.

Cape Nome, Alaska	June 20—July 10.	5 cases.	On vessel.
Washington, D. C	July 14-21	1 case.	
Michigan City, Ind	July 14-21	1 "	
Wichita, Kan	July 14-21		1 death.
Covington, Ky	July 9-10	3 cases.	
New Orleans, La	July 14-21	8 "	2 deaths.
Fall River, Mass	July 14-21	2 "	
Lowell, Mass	June 30—July 14.	2 "	
Minneapolis, Minn	July 14-21	23 "	
Manchester, N. H	July 14-21	3 "	
Cincinnati, Ohio	July 6-20	7 "	
Cleveland, Ohio	July 14-21	20 "	
Salt Lake City, Utah	July 14-21	4 "	

Small-pox—Foreign.

Prague, Austria	June 23-30	10 "	
Rio de Janeiro, Brazil	May 19—June 22.		10 deaths.
Hongkong, China	June 8-23	1 case.	
Cairo, Egypt	June 3-10		5 "
Liverpool, England	June 30—July 7	4 cases.	2 "
London, England	June 30—July 7	17 "	
Lyons, France	June 23-30		1 death.
Paris, France	June 30—July 7		4 deaths.
Gibraltar	July 1-8		1 death.
Athens, Greece	June 30—July 7	2 "	2 deaths.
Bombay, India	June 12-26		12 "
Karachi, India	June 10-24	8 "	5 "
Vera Cruz, Mexico	July 7-14		4 "
Moscow, Russia	June 16-23	17 "	5 "
Odessa, Russia	June 23-30	5 "	
St. Petersburg, Russia	June 23-30	3 "	6 "
Warsaw, Russia	June 23-30		7 "
Vladivostock, Siberia, Russia	May 1-31	9 "	
Glasgow, Scotland	July 6-13	68 "	2 "
Straits Settlements, Singapore	May 26—June 10.		1 death.

Yellow Fever.

Rio de Janeiro, Brazil	May 16—June 2		34 deaths.
Cartagena, Colombia	June 30—July 7	9 cases.	7 "
Panama, Colombia	July 9-16	3 "	1 death.
Port Limon, Costa Rica	July 17	1 case.	
Cienfuegos, Cuba	July 21	1 "	
Havana, Cuba	July 4-11	21 cases.	5 deaths.
Sagua, Cuba	July 5	2 "	
Vera Cruz, Mexico	July 7-14		4 "

Cholera.

Bombay, India	June 12-26		179 "
Madras, India	June 2-22		2 "
Osaka, Japan	June 23-30	1 case.	

Plague—Foreign and Insular.

Aden, Arabia	June 23-30	1 case.	1 death.
Hongkong, China	June 2-23	207 cases.	185 deaths.
Bombay, India	June 12-26		185 "
Karachi, India	June 10-17	17 "	16 "
Osaka, Japan	June 19-30	3 "	
Sakai, Japan	June 19-30	1 case.	
Shidzuoka, Japan	June 19-30	1 "	
Tamsui, Japan	June 1-14	76 cases.	65 "
Saoul, Korea	June 8-16	Endemic.	
Manila, Philippine Islands	May 26—June 7	4 cases.	

Naval Intelligence.—*Official List of Changes in the Medical Corps of the United States Navy for the Week ending July 28, 1900:*

Gates, M. F., Surgeon. Commissioned surgeon from July 7, 1900.

Grunwell, A. G., Assistant Surgeon. Detached from the *Brooklyn* and ordered to the *Monocacy.*

Kennedy, R. M., Passed Assistant Surgeon. Detached from the *Yorktown* and ordered to the *Newark.*

Elmer, M. K., Assistant Surgeon. Commissioned assistant surgeon from July 18, 1900.

Rothganger, G., Commissioned surgeon from July 7, 1900.

Russell, A. C. H., Surgeon. Detached from the *Newark* and ordered to the Naval Hospital, Yokohama, Japan, for treatment.

Spear, R., Passed Assistant Surgeon. Commissioned passed assistant surgeon from June 22, 1900.

The American Association of Obstetricians and Gynæcologists will hold its thirteenth annual meeting in the assembly room of the Galt House, Louisville, on Tuesday, Wednesday and Thursday, September 18th, 19th and 20th, under the presidency of Dr. Rufus Bartlett Hall, of Cincinnati. Besides the president's address, the following-named papers have been announced: Ovarian Fibroma—Case with Microscopical Report, by Dr. L. H. Laidley, of St. Louis; Cholelithiasis, with Reports of Cases, by Dr. H. E. Hayd, of Buffalo; Appendicitis during Pregnancy, by Dr. Charles G. Cumston, of Boston; The Diagnosis of Ectopic Pregnancy before Rupture, Based on Ten Cases, by Dr. J. F. Baldwin, of Columbus; Three cases of Extra-uterine Pregnancy, with Specimens, by Dr. W. B. Dorsett, of St. Louis; The Private Hospital, by Dr. Joseph Price, of Philadelphia; Extirpation of the Rectum and Sigmoid per Vaginam, by Dr. John B. Murphy, of Chicago; The Hymen—of what Significance is its Presence or Absence in Determining Virginity, by Dr. John Milton Duff, of Pittsburgh; A satisfactory Method for Suspension of the Uterus, by Dr. Robert T. Morris, of New York; Some Points regarding the Surgery of the Gall-bladder, by Dr. A. Vander Veer, of Albany; The Surgery of the Liver and Bile-ducts, by Dr. W. G. Macdonald, of Albany; Observations respecting Malignant Disease of the Pelvic Organs, by Dr. Augustus P. Clarke, of Cambridge; Bilateral Cœliotomy and Shortening of the Round Ligaments for Complicated Retroversion of the Uterus, by Dr. A. Goldspohn, of Chicago; Round-Ligament Ventrosuspension of the Uterus, by Dr. D. Tod Gilliam, of Columbus. Also papers (on subjects not yet announced) by Dr. E. F. Fish, of Milwaukee; Dr. C. C. Frederick, of Buffalo; Dr. J. O. Pantzer, of Indianapolis; Dr. J. H. Carstens, of Detroit; Dr. W. P. Manton, of Detroit; Dr. F. Blume, of Pittsburgh; Dr. H. W. Tougyear, of Detroit; Dr. M. Rosenwasser, of Cleveland; Dr. W. B. Chase, of New York; Dr. Charles A. L. Reed, of Cincinnati, and Dr. L. S. McMurtry, of Louisville.

The Lane Lectures at the Cooper Medical College, San Francisco.—The president of the college, Dr. L. C. Lane, announces that the fifth course, for 1900, will be given by Sir Michael Foster, K. C. B., M. P., professor of physiology, University of Cambridge, England, as follows: *August 20th,* 11 a. m., Vesalius, his Forerunners and Followers: the beginning of Modern Physiology. *August 20th,* 8 p. m., Harvey, and the Circulation of the Blood. The Lacteals and Lymphatics. *August 21st,* 11

A. M., Borelli and the Influence of the new Physics. *August 21st,* 8 P. M., Malpighi and the Physiology of Glands and Tissues. *August 22d,* 11 A. M., Van Helmont and the rise of Chemical Physiology. *August 22d,* 8 P. M., The Physiology of Sylvius and his Pupils. Digestion in the Seventeenth Century. *August 23d,* 11 A. M., The English School. The Physiology of Respiration in the Seventeenth Century. *August 23d,* 8 P. M., Priestly and Lavoisier. The Modern Doctrines of Respiration. *August 24th,* 11 A. M., Réaumur and Spallanzani. The Physiology of Digestion in the Eighteenth Century. *August 24th,* 8 P. M., Haller and the Physiology of the Nervous System. To avoid interruption no one will be admitted after a lecture has begun.

Long Island State Hospital.—According to the *Brooklyn Eagle* for July 28th Dr. John R. Harding, of Carthage, has been appointed from the civil service eligible lists as a junior physician at the Long Island State Hospital.

The Tuberculosis Congress Prize.—According to Press dispatches the prize of four thousand marks offered by the Congress of Tuberculosis has been awarded to Dr. S. Adolph Knopf of New York City for the best essay on How to Fight Tuberculosis as a Disease of the Masses. There were eighty-one competitors.

A Canadian Diploma in Public Health.—According to the *Montreal Medical Journal* for June, the Faculty of the McGill University has made a new departure this year by the establishment of a new post-graduate qualification, entitled a "Diploma in Public Health," fashioned, with modifications, after the similar qualification given by some of the institutions in Great Britain, and very highly valued. Four candidates have taken it.

A Hospital Examination.—The Municipal Civil Service Commission of the City of New York gives notice that a competitive examination for the position of resident physician in the Hospital for Contagious Diseases, North Brothers Island, will be held on the 8th of August. The subjects of the examination will be technical knowledge and experience. For applications apply to Lee Phillips, secretary, No. 346 Broadway.

The Settlement of Dr. Evans's Will.—According to the *New York Times* for July 28th, a settlement having been arrived at in respect of the will of the late Dr. Thomas Wiltberger Evans, the famous American dentist of Paris, the foundation and establishment of Thomas W. Evans Dental Institute and Museum in Philadelphia can now be proceeded with. The construction, equipment and endowment are to cost about three million dollars.

Yellow Fever Among the Troops in Cuba.—According to press dispatches Surgeon Glennon has reported from Havana by cable to Surgeon-General Wyman eleven deaths from yellow fever in Pinar del Rio, and eight cases and eleven suspects under observation, while cases have also been reported from Matanzas. Arrangements have been made for the disinfection of the effects of all regiments ordered home before being placed on the transports.

Suspected Yellow Fever in the Naval Hospital at Havana.—According to the *Sun* for August 2d, Dr. Macour, the surgeon in charge of the naval hospital at Havana, telegraphed the navy department on August 1st that two cases of sickness, suspected of being yellow fever, had appeared at the station, where there are about twenty marines. The department has sent instructions to have all the men who could be spared returned to the United States.

Kipling on Hospitals.—According to press dispatches Rudyard Kipling in his testimony before the South African Hospital Inquiry Commission on August 1st said that little fault could be found generally, but he characterized the Woodstock Hospital at Cape Town as unspeakable in regard to foulness from defective drainage.

Dr. Stephen Lewis Pilcher.—We are informed that the University of Michigan and Dickinson College has conferred the LL. D. degree upon Dr. Lewis Stephen Pilcher, of the Methodist Episcopal Hospital, Brooklyn, editor of the *Annals of Surgery.*

Chirata as a Cure for Drunkenness.—Chirata has been used in India for many years as a cure for drunkenness. The plant is held in high esteem among the natives, and the missionaries employ it extensively for the cure of drunkenness. A correspondent, who was chaplain to an army post and in charge of a mission in India for many years, informs us that he has seen very good results from the use of chirata in habitual drunkenness. He adds that the drug seems to be more intensely bitter than gentian, quassia, etc., and attributes the effect of chirata upon alcoholics to this property. The disgust for drink which it creates is only temporary, however, and the patient must take the drug from time to time when the craving for alcohol returns. The best way to administer it is in the form of an infusion (half an ounce of chirata to a pint of boiling water), the dose of which is from an ounce to two ounces three times daily.

Orange Juice in Scorbutic Joint Symptoms.—Dr. Glentworth R. Butler (*Brooklyn Medical Journal,* June) records a case of scurvy, at first mistaken from its articular manifestations for acute rheumatism, but diagnosticated by an ecchymotic eruption and the failure of salicylates to relieve, in which the administration of orange juice caused an extremely rapid disappearance of the joint symptoms and excessive tendencies.

Births, Marriages, and Deaths.

Married.

BREAUX—DE VERGES.—In New Orleans, on Wednesday, July 11th, Dr. Thomas W. Breaux and Miss Marie Anna De Verges.

WINDELL—PARKERSON.—In Rochester, N. Y., on Wednesday, July 25th, Dr. William A. Windell and Mrs. Julia A. Parkerson.

Died.

BOYLE.—In Houston, Texas, on Sunday, July 22d, Dr. Thomas J. Boyle, in the fifty-first year of his age.

FAUSNER.—In New York, on Sunday, July 29th, Dr. John F. Fausner, in the twenty-fifth year of his age.

KELLEY.—In South Butler, N. Y., on Sunday, July 29th, Dr. Charles H. Kelley, in the seventy-third year of his age.

KENISON.—In Boston, on Thursday, July 19th, Dr. Andrew J. Kenison, in the seventy-second year of his age.

PERRY.—In New York, on Sunday, July 29th, Dr. Bertrand J. Perry.

WOODRUFF.—In Providence, Rhode Island, on Saturday, July 28th, Dr. William J. Woodruff, in the thirty-first year of his age.

Pith of Current Literature.

The Journal of the American Medical Association, July 28, 1900.

Laryngology and Otology. By Dr. Christian R. Holmes.

Neurology and Medical Jurisprudence. By Dr. Hugh T. Patrick.

Post-febrile Insanity and its Treatment. By Dr. Frank Parsons Norbury.

Practical Physiology of the Digestive Organs. By Dr. A. L. Benedict.—While admitting the importance of mastication and insalivation the author is sceptical as to its chemical value, and believes that the principal function of the mouth and salivary glands is a mechanical one. As to the first appearance of a swallowed foreign body at the anus, he lays down the rule that, there being no diarrhœa, the first of the foreign matter will appear in twenty-four hours, the last at the next day's passage. The normal secretion of the stomach is of hydrochloric acid along with pepsin and rennin. Another point the author lays stress upon, and one which apparently the text-books neglect to elucidate, regards the amount of free or combined hydrochloric acid and of the total acidity to be expected under normal conditions. Now, using dimethylamido-azobenzol as an indicator for free hydrochloric acid, alizarine as an intermediate indicator and phenolphthalein for the total acidity, he places the degrees of acidity—meaning the ratio of decinormal solution of monobasic alkali to the quantity of chyme used—about as follows: Total acidity, 50 to 100; combined, 20 to 30; free hydrochloric acid, 20 to 50. Free hydrochloric acid should be about half the total acidity. The statement that lactic acid is pathognomonic of carcinoma, the author regards as a fallacy, and demonstrates that there may be carcinoma without lactic-acid excess, or vice versa. The stomach contents after withdrawal, if cooled immediately to 40° F., will keep for two or three days with very slight changes of any kind. As to the excitability by electricity of gastric peristalsis the writer doubts its value.

Infant Feeding. By Dr. Alexander McAlister.

Exact Infant Feeding: Accidents and Incidents. By Dr. W. P. Northrup.

Credulity of the People as it Pertains to Medicine and Religion. By Dr. T. B. Greenley.

The Mammary and the Parotid Glands. By Dr. John B. Shober.

The Prophylaxis and Management of Interstitial Nephritis. By Chas. W. Purdy.

Hospital and Ward Clinical Laboratories. By Dr. C. N. B. Camac.

Blood Examination. By Dr. M. H. Fussell.

The Philadelphia Medical Journal, July 28, 1900.

A New Method for the Clinical Determination of the Position of the Cardia. By Dr. G. W. McCaskey.—The most conflicting statements are made in current literature regarding the precise location of the cardia, some writers placing it at the eighth and some at the twelfth dorsal vertebra. The accurate determination of its location is of considerable clinical importance, and Dr. McCaskey has devised a method for doing this which involves the use of a simple apparatus devised by him for the purpose. This consists of a soft Goodrich colon tube, in the distal end of which is tightly fitted a piece of metal tubing; over this tubing is adjusted a small bag of very thin rubber, the end of which projects about an inch beyond the tube. The proximal end of the tube being attached to a closed rubber bulb, the tube with the bag collapsed is introduced into the stomach and the bag expanded by compression of the bulb. The tube is then withdrawn until the impact of the rubber balloon is felt against the cardiac orifice. The distance is then read off on a scale marked on the outside of the tube. The article is illustrated.

Cause of the Decussation of Nerve Fibres in the Medulla and Spinal Cord. By Dr. D. T. Smith.

The Surgical Treatment of Congenital and Pathologic Disfigurements of the Face. By Dr. John B. Roberts.

The Early Recognition of Ectopic Pregnancy. By Dr. De Witt G. Wilcox.

A Method for Graphic Study of Gastric Peristalsis. By Dr. Clarence Quinan.

Are Consanguineous Marriages Injurious to the Race? (*Concluded.*) By Lawrence Irwell, M. A., B. C. L.—This article is one of much popular interest, the subject being one upon which the public at large entertain the most fallacious views. The author's attitude is a most sane and moderate one, and as a result of the observations of many authorities under widely varying conditions he concludes that consanguineous marriages are not *per se* injurious, but are only so where there are inherent weaknesses, which are even more apt to be accentuated by in-and-in breeding than are valued qualities, whether physical or mental.

Morbid Conditions Caused by Bacillus Ærogenes Capsulatus. By Dr. Wm. H. Welch.

The True Function of the State Medical Board. By Dr. Allard Memminger.

Recent Progress in Neurology. By Dr. Philip Coombs Knapp.

Medical Record, July 28, 1900.

Chorio-epithelioma Malignum. By Dr. B. S. Talmey.

Hypospadias Operated on by Beck's Method. By Dr. Ferd. C. Valentine.

The Peritoneum—Anatomy, Physiology, and Pathology. By Dr. Byron Robinson.—An admirable article treating in concise form of the subject as given in the title and very well worth reading.

Amenorrhœa. By Dr. L. H. Dunning.—This condition, which may be defined as a permanent or temporary absence of the menses, is caused most frequently by those constitutional diseases which lead to the general impoverishment of the blood and to anæmia. Bright's disease and tuberculosis are causes, and so often is the latter a cause that it is frequently mistaken for a result by the laity. The author gives a typical case in point. An hygienic environment at the time of puberty is an ætiologic factor, and acute attacks of scarlet fever and pneumonia often stand in a causative relation to a subsequent amenorrhœa. There are other more rare causes; a most common cause in young women is imperfect development of the uterus or ovaries, with this latter cause may be found a decided leaning towards the masculine type. Treatment, of course, depends upon the ætiology and the dictates of common sense may be followed here.

Medical News, July 28, 1900.

Aspiration in the Treatment of Acute Traumatic Empyema: with an Illustrative Case. By Dr. Joseph D. Bryant.

Headache from Eye-Strain; its Diagnosis and Treatment. By Dr. Casey A. Wood.

A Contribution to the Management of Face Presentations. By Dr. Malcolm McLean.

Acute Trional Intoxication. By Dr. Warren Coleman.—No account is taken in this report of the use of trional extended over long periods of time. The report is made only to show that trional is free from depressing effects when given in maximal medicinal doses, and that even when enormous doses are taken through accident, they do not necessarily produce a fatal or even an alarming result.

Annals of Surgery, June, 1900.

The Leucocyte Count in Surgery. By Dr. Theodore Dunham.—The author says that in weighing the significance of a leucocyte count, regard must be had to certain influences which cause it to vary. The digestion of proteids, as after a hearty dinner, large hæmorrhages, ether operations of any magnitude, the absorption of iodoform, carcinomata and sarcomata, seem to increase the leucocyte count. The best service which the leucocyte count renders to the surgeon lies in the diagnosis of acute inflammatory conditions. In most cases, other influences being excluded, the leucocyte count is a safe guide to the presence of acute suppuration, though it is not always strikingly high therein. In such cases the author emphasizes the importance of making two or more counts at intervals to determine whether the tendency is upward or not. In the early stage of appendicular inflammation a stationary or downward tendency may point to the advisability of delaying interference to a period of quiescence; while a mounting leucocytosis may be the only, but sufficient, reason for operating. Perplexing instances of severe suppuration without leucocytes arise, however, in patients greatly prostrated. The technique is described. The author insists that although the leucocyte count may be made by some one else, yet its bearing upon the case should be interpreted by the surgeon himself.

Permanent (Congenital) Dislocation of the Patella. By John Shaw McLaren, M. B., F. R. C. S. Ed.—The author reports a case of congenital outward dislocation of the left patella in a girl aged nineteen. Coexistent knock-knee was corrected by osteotomy. Subsequently a U-shaped incision was made over the knee and a flap of skin turned up. The expansion of the quadriceps tendon and the capsule were divided (without opening the joint) on the outer side of the knee. Two holes were bored through the inner edge of the patella, which was stitched to the internal lateral ligament with stout catgut. There was union by first intention, but the ligatures not holding long enough, an operation eight weeks subsequently, silk being used, was successful. Four years later the patella had retained its position and the patient was able to run. The author refers to several collected cases and says that in most recorded cases one or other of the following conditions will be found: 1. dislocation or some accompanying deformity noted at birth; 2. late acquirement of walking or insecurity therein during childhood; 3. rachitis; 4. genu valgum; 5. outward rotation of leg; 6. ill developed patella; 7. abnormity in shape of the external condyle and patellar fossa of the femur. It is possible, he concludes, that the severe procedure of opening the joint and enlarging the groove for the patella might, in some cases, be necessary; while, again, the transplantation of the ligamentum patellæ inward should be reserved for cases where the outward rotation of the leg exists to a high degree.

Interscapulo-theracic Amputation for Osteomyelitis of the Humerus. By Dr. George Ryerson Fowler.—A case is recorded of a man thirty-nine years of age, who fell and struck his left shoulder. Consequent pain was unsuccessfully treated by anti-rheumatic measures and a plaster bandage. An abscess formed. This was opened and curetted. Excision of the head of the humerus was next performed at the surgical neck, the bone and medullary cavity being found extensively diseased. The medullary canal was next curetted, injected with a ten-per-cent. emulsion of iodoform in glycerine, and drained. Marked improvement followed; but, notwithstanding the evacuation of several pus cavities and tri-weekly curettage, amputation at the shoulder joint was found necessary three months later, osteomyelitis of the entire humerus being present. Prompt recovery ensued. Ten weeks later, in consequence of recurrence of infection in the flap covering the glenoid cavity, interscapulo-theracic operation was performed. The entire raw surface of the flaps, as well as the infected area on the chest wall, was then swabbed with two-and-one-half-per-cent. solution of formalin in equal parts of alcohol and water. The cavity was packed with gauze wrung out in the same solution. The patient reacted well from the operation and was thoroughly convalescent in a fortnight.

Thyreoid Medication in the Treatment of Delayed Union of Fractures. By Dr. Francis W. Murray.—The author records a case of double fracture of the left femur in which, after wiring, thyreoid extract was administered in two-, gradually increased to four-, grain doses, thrice daily. The result in this case has not been as yet entirely successful, but there has been great improvement since the beginning of the thyreoid medication, and the author is inclined to give it some credit. The author briefly alludes to other published cases.

Splenectomy for Congestive Hypertrophy. By Dr. J. Wesley Boree.—A successful case of splenectomy in a woman thirty-nine years of age for abdominal tumor of the left side, extending from the diaphragm into the pelvic cavity, is recorded by the author. Examination of the blood for the malarial parasite was negative. Great improvement followed the operation.

Operation for Cure of Large Incarcerated Hernia of Long Standing. By Dr. J. C. Weidman.—This was a case of umbilical hernia. The patient recovered in four weeks.

Radical Treatment for Curvature of the Penis. By Dr. Eugene Fuller.—The patient, a young man, at twelve years of age had contracted gonorrhœa from his nurse. Tight stricture followed, necessitating internal urethrotomy. Much inflammation ensued, and an indurated area caused the urethra to stand out like a bow on erection. The perinæum was laid open from just above the rectum on to the uplifted scrotum. The urethra was then cut across very obliquely in the bulbous region. The penile end, in order to facilitate its retraction, was dissected free from the surrounding tissues for three-quarters of an inch, after which the penis was pulled up and bent back over the pubes, thus inducing a maximum separation of the cut urethral ends. The penis remaining in that position, the penile end of the urethral roof was stitched with fine catgut to its surrounding tissues, while a longitudinal half-inch cut was made along its floor. A perineal vesical drainage tube was inserted, and the author's usual urethral tube adjusted, the perineal incision being sutured. The penis was kept bent back upon the pubes by plaster. The wound healed well and the operation was a distinct success. Two years afterwards the patient had a good free stream on urination and a penis nearly straight on erection, enabling the sexual act to be accomplished.

Report of a Case of Exstrophy of the Bladder, with Remarks upon the Operative Treatment of that Condition. By Dr. Bransford Lewis.—The patient was a man aged twenty-seven. With the aid of a rubber receptacle he had been able to catch and carry the urine as it emerged from the ureters. The author discusses the various operative measures that have been recommended, and thinks that an impartial review of the results of surgical measures undertaken for the relief of vesical exstrophy can hardly fail to convince one that the nearest solution of the problem lies in the ureteral-transplantation and vesical-extirpation methods.

Archives of Pædiatrics, July, 1900.

A Case of Rhachischisis. By Dr. T. M. Rotch.—Spina bifida, says Dr. Rotch, is often associated with rhachischisis, but is distinguished from it anatomically by the fact that the spinal cord has been properly formed, whereas in rhachischisis the cord is rudimentary and split open so that the endothelial lining of the central canal is exposed. He describes an infant which was born with this form of defective development and died when it was seven days old. A longitudinal median section of the child's head and trunk is portrayed, and the article is further illustrated with reproductions of photographs, several of which are those of museum specimens. The author mentions Dr. Augustus Thorndike's essay on the subject, published in the *Transactions of the American Orthopædic Association* for 1899, as leaving little more to be said of the condition.

A Fatal Postotitic Cerebral Abscess, with Amnesic Aphasia. By Dr. J. Henry Fruitnight.

The Treatment of Hydrocephalus by Craniectomy. By Dr. Edward P. Davis.

Intestinal Obstruction Through a Loop Formed by Meckel's Diverticulum with Ligamentous Attachments. By Dr. Irving M. Snow.

Remarks Upon the Diplococci Resembling Gonococci Found in the Normal Vagina of Children. By Dr. Charles A. Rosenwasser.

University Medical Magazine, July, 1900.

Some of the Developments and Demands of Modern Public Hygiene. By Dr. A. C. Abbott.

The Relation of Artificial Feeding to the Gastro-intestinal Diseases of Infants. By Dr. D. H. Bergey.

Coxa Vara. Ankylosis of the Hip. By Dr. De Forest Willard.

Experience an Essential of Satisfactory Radiography. By Dr. Arthur W. Goodspeed.—The author argues forcibly against placing dependence upon Röntgen-ray work done by persons who, however well trained they may be in medicine, have little knowledge of physics and only the most superficial acquaintance with the special apparatus that has to be employed. He would have instruction in X-ray photography made an elective course in the medical schools.

Osteoarthritis of the Spine and Hip Joints; Rhizomelic Spondylosis. By Dr. Charles H. Frazier.

A Study of the Physiological Action of Phenacetine. By Dr. Horatio C. Wood, Jr.—Speaking of the theory that phenacetine is broken up in the system, losing its acetyl radicle and being eliminated as phenetidine, the author remarks that this change must occur after the absorption of the drug, for the gastric and pancreatic secretions do not decompose it. He calls attention to the fact that this decomposition occurs spontaneously when a solution of phenacetine is exposed to the air for several weeks. His general conclusions are as follows: A moderate dose of phenacetine has no distinct action on any vital organ; large doses lessen the reflexes by a direct action on the spinal cord; doses of 0.5 of a gramme to the kilogramme of the subject's weight (a little less than an ounce for a man weighing 150 pounds) kill by arresting respiration, but they have no distinct effect upon the circulation.

Montreal Medical Journal, June, 1900.

Valedictory Address Delivered to the Graduates in Medicine at the Annual Convocation of the Medical Faculty of McGill University, June 15, 1900. By T. J. W. Burgess, M. B., F. R. C. S.

The Duties and Limitations of the Municipal Board of Health. By Alderman H. B. Ames, B. A.—The author, chairman of the Hygiene Committee of Montreal, discusses the working of the board of health under the headings of The Enforcement of Measures Relating to the Cleanliness of the City; Measures for the Prevention of the Spread of Communicable Diseases; Vaccination; Laboratory Work; Statistical Information; Seizures and Confiscation of Deleterious Articles of Food; Inspection of Milk; Supervision of the Drainage, Plumbing and Ventilation of New Buildings; Inspection of Schools, Factories, Workshops, etc.; Privy Pits; and Public Baths.

On a Case of Retroperitoneal Lipoma (Lipoma Myxomatoides), with Accompanying Retroperitoneal Fibroma (Chondro-myxofibroma). By Dr. William Gardner and Dr. J. G. Adami.—The abdomen of a married woman, aged thirty-five, was opened about fourteen months after her last pregnancy for a slow-growing fluctuating abdominal tumor. Two tumors were found, the larger, abdominal in position, giving a sensation as of fluctuation; the smaller, pelvic, much firmer. Both were obviously subperitoneal. These tumors were enucleated through an incision in the peritonæum to the outer and left side. There was but little difficulty or hæmorrhage. Recovery was uneventful. On examination the larger tumor seemed to have originated as a fatty tumor which had assumed a myxomatous or mucinous change, while the other tumor, developed apparently from the same tissue, had remained more fibroid.

Report on the Cases of Typhoid Fever Admitted into the Royal Victoria Hospital During the Year 1899. By Dr. B. D. Gillies.—Ninety-eight cases were treated in the hospital in 1899. Sixty-five patients were males and thirty-three females. Of the ninety-eight, eighty-six were treated to a conclusion. Of the remaining twelve, several were cured and the others convalescent, but they are not included in the report. The mortality was higher than at any time since the opening of the hospital, there being seven deaths or 8.16 per cent. Death resulted in three cases from hæmorrhage, in one case from hæmorrhage and perforation, in one from perforation, and in two from profound intoxication. The average age was twenty-three years. The largest number of cases was admitted in August, the smallest in December. The average number of days in hospital was 39.5. Infection in one case was traced to milk, five from one family to defective sewage, in four two or more members of the same family were also ill with it. The onset was gradual in 95.4 per cent. of cases, Diarrhœa at onset in 20.9 per cent., Epistaxis in 18.6 per cent., Vomiting in 34 per cent., Delirium in 18.6. The eruption was present in seventy-two per cent., the earliest appearance being on the fourth and the last on the fortieth day of the disease. The shortest duration of rash was three, the longest twenty-seven, and the mean eleven days. The spleen was palpable in 67.4 per cent. Relapse occurred in 12.7 per cent. The highest temperature record was 106.4° F., the average maximum being 103.4° F. Among complications the following were noted—Double parotiditis, one case; cholecystitis, three; suppurative cholecystitis with gangrenous ulceration of the gall bladder and cholelithiasis, one; meteorism, twenty-five per cent. of cases; perforation, two cases, on tenth and thirteenth day respectively; intestinal hæmorrhage in nine cases, recovery occurring in five; systolic murmurs developed in five cases; femoral phlebitis occurred in two cases, and brachial in one case; acute bronchitis at onset in 14.9 per cent.; broncho-pneumonia developed in one case; pulmonary œdema in one; pleurisy with effusion in two; tuberculosis was present in one; periosteitis in two; abscesses in one; myositis of triceps and deltoid in one; suppurative otitis media in three; staphylococci in pus in one; acute nephritis during the active stage of the disease in four cases. The Widal test was employed in all cases and in only four was the reaction negative throughout the course of the disease. Of these, three were regarded as "abortive." The temperature remained elevated in the most prolonged case for ten days. No rose spots were present. The reaction appeared in one case as early as the fourth day of the disease. In one case it was not positive till the eighteenth day. It was present on the average on the eighth day. It was tried in six cases at the date of discharge and in each case the result was positive. This point is receiving further investigation.

The Lancet, July 21, 1900.

Malaria and the Malarial Parasite. By Dr. P. Manson.—In this, the second and concluding lecture, the writer discusses the morbid anatomy and treatment of malaria. The morbid anatomy consists of enlargement of the spleen, congestion of the liver and portal circulation, and pigmentation of the viscera. This pigmentation arises from the pigment contained in the living parasites and from the same pigment included in leucocytes and other body cells. Anæmia is produced with a rapidity hardly equaled in any other disease. So far as known the lower animals are absolutely immune as regards the human forms of malarial disease. The various clinical forms of malaria are described, especially the pernicious varieties so common in hot countries. It is not yet definitely determined that "blackwater fever" is a malarial disease. There are three pathognomonic tests for malaria which are infallible: (1) Tertian or quartan periodicity; (2) the therapeutic test by quinine; (3) microscopical examination of the blood.

Treatment resolves itself into the use of quinine. While the use of quinine is followed occasionally by hæmoglobinuria ("blackwater"), yet the withholding of quinine from a patient in whom the parasite is circulating is more apt to be followed by blackwater symptoms than if the drug is given.

Modern Methods of Amputating at the Hip Joint. By T. F. Chavasse, F. R. C. S., Ed.—The writer reports fifteen cases of hip-joint amputation; of these eleven recovered and four died, showing a mortality of 26.6 per cent. In six instances the operation was performed for sarcomatous growths; of these one died of shock. Two methods of operating were practiced. In three cases anterior and posterior skin-flaps were shaped from without inwards. In the remaining twelve cases the well-known external racket operation was used. Hæmorrhage was prevented by three methods: (a) Wyeth's pins in eight cases; (b) direct compression of the abdominal aorta by a pad, in four cases; and (c) digital compression in three cases.

On Rupture of the Apparently Healthy Oesophagus. By Dr. E. J. McWeene.—The writer reports the case of a man aged forty, addicted to the use of alcohol, in whom rupture of the oesophagus took place during an attack of "morning vomiting." Death occurred in forty hours, when post-mortem examination showed a slit-like tear in the anterior surface of the oesophagus 1.5 centimetres long. Microscopical examination showed signs of softening of the oesophageal wall in the vicinity of the rupture. The writer gives a table of seventeen cases of rupture of the apparently healthy oesophagus which he collected from the literature. Of these sixteen were in men in the prime of life; in eight cases there was a history of alcoholism; vomiting had occurred in eight cases; agonizing pain and dyspnœa were present in all; emphysema was a constant symptom, occurring in twelve cases; death took place in less than twenty-four hours in sixteen cases. The writer concludes that such ruptures are due to: (a) softening of the coats and (b) increase of pressure from within. The softening is due to circulatory disturbance and "prolonged sojourn of peptic matters in the gullet from prolonged retching."

A Case of Pernicious Anæmia Following on Traumatic Stricture of the Small Intestine. By A. E. Barker.—The writer reports a case of pernicious anæmia in a man aged twenty-eight who seven years previously had been run over by a loaded wagon. Since then he had had periodical attacks of pain and vomiting, the pain beginning two inches to the right and below the umbilicus, and also progressive anæmia. A diagnosis of stricture of the mall bowel was made, and an operation undertaken. A tricture of the first part of the small intestine was found, nd the distended loop above the stricture was anastomosed with the empty loop below. The patient did not o well after the operation and died two days later.

The pathological report confirmed the diagnosis of pernicious anæmia: The examination of the blood preented a typical picture of that disease. The patient had lways had bad teeth, with alternate alveolar and ethmoidal suppuration, and chronic gastric catarrh, thus bearing ut Hunter's idea as to pernicious anæmia being due to elf-intoxication from the intestinal tract.

A Case of Ulcerative Endocarditis, with Recovery nder the Use of Anti-streptococcic Serum. By Dr. J. I. Clarke.—The writer reports a case of ulcerative endoarditis in a woman aged twenty-two, which was treated with injections of anti-streptococcic serum. 210 cubic entimetres of serum were given in all, at different interals, the dose varying from ten to twenty cubic centimeres. During the last twelve days fifteen cubic centimeres were given every other day. The patient improved teadily and when last seen was fat and rosy, but having of course a valvular cardiac lesion.

The Varieties of Acute Pneumonia. By Dr. H. Handford.—The writer holds that pneumonia is a specific *general* disease, and may be due to a variety of causes such as the pneumococcus, influenza, plague, yphoid fever, insufflation of food, etc. He also calls atention to the frequent wide variation of physical signs and symptoms.

Rodent Cancer of the Cornea; Operation; Recovery with Retention of Good Sight. By S. Stephenson.—The writer reports a case of the above affection in a woman aged sixty. The ulcer was thoroughly burnt out with the galvano-cautery under cocaine anæsthesia. When seen two years later the ulcer had completely healed and the powers of vision were good.

Four Cases of Puerperal Eclampsia. By T. B. Broadway.—In one of the four cases reported by the writer, the patient's temperature reached 106.2° F. and remained elevated for several days. The other cases presented no points of special interest.

The Edinburgh Medical Journal, June, 1900.

Has Antitoxine Reduced the Death Rate from Diphtheria in Our Large Towns? By Louis Cobbett, M. D.—The author makes a comparison of the annual death rate from diphtheria and membranous croup, the prevalence of the disease as shown by notification and the case mortality, or number of deaths to cases, for eleven cities, viz.: London, Paris, Berlin, Edinburgh, Glasgow, Liverpool, Manchester, Birmingham, Leeds, Bristol, Newcastle, for two periods, a pre-antitoxine period prior to 1895 and an antitoxine period from then on. From these data he shows that while the prevalence of the epidemic diphtheria has continued, and in some cities has even increased, in most of the cities mentioned a remarkable fall, both in the diphtheria death rate and case mortality, has occurred since 1894. While several causes have probably contributed to this change, the author thinks that no one who has duly considered the magnitude of the changes which have taken place, the remarkable way their commencement coincides with the introduction of the new remedy and the sharpness of that commencement in those towns which we know were most ready to adopt the new remedy, will hesitate to ascribe these changes to diphtheria antitoxine. The following statement will be of special interest to American physicians:

"Some time ago Dr. Nuttall called my attention to the American habit of chewing gum, and told me that children in the States would often exchange the pieces of gum which had been for some hours in their mouths. Could any custom be more calculated to spread diphtheria, if it is true that the infection lurks in the mouths of those apparently well? The amount of diphtheria in the cities of the United States ought to be out of all proportion to that of European countries where the custom does not exist. I did not know at the time whether there was more or less diphtheria in the States than in Europe, but this led me to consult Dr. Jordan's paper, with the result that I found that the death rate from diphtheria in the best of the American cities mentioned by this writer was immensely greater than that of the worst of our own. In the pre-antitoxine days no less than 147 persons, mostly children, used to die every year out of every 100,000 persons living in Brooklyn. The disease in 1898 still claimed one victim each year out of every thousand persons living in Philadelphia, Brooklyn and Boston, and if one takes the proportion of children of the age chiefly affected by diphtheria to adults as roughly about one to three, one child in every 330 dies each year from this disease alone. It is appalling! I do not know to what extent the habit of chewing gum exists in the different cities of the United States, but it certainly looks as if the disease was spread by the habit, and the facts just mentioned seem to me to support the theory of mouth-to-mouth infection, and show the direction our preventive measures should take."

The author urges on municipal authorities the following preventive measures:

1. Medical practitioners should be urged to have all persons with suspicious sore throats, and all those who have come into intimate contact with the sick from this disease, examined by the bacterial test. And all those persons in whom the diphtheria bacillus is found should be isolated until the absence of this micro-organism has been ascertained. 2. All persons recovering from diphtheria, however mild the attack has been, should be isolated until the specific micro-organism has disappeared from their throats. If this is impracticable, adult convalescents should be warned that they are liable to communicate the disease to children, and children should on no account be allowed to go to school until a satisfactory negative test has been obtained. 3. Whenever diphtheria has broken out in a school or other institution, all the inmates should be submitted to the bacterial test, and those in whom the bacillus is found should be isolated until it has disappeared. 4. Every effort should be made in schools to prevent mouth-to-mouth infection. 5. A competent bacteriologist should be appointed in every large town to make the necessary examinations. The people must be educated to require these measures from their civic rulers.

The Theory and Practice of the Treatment of Ringworm of the Scalp. By Dr. W. Allan Jamieson.—The author says that in the deeper part of the hair follicle where the hair takes origin, its bulb fits closely to the follicular walls, being separated from these only by the root sheaths, themselves active. But precisely where the sebaceous gland pours in its secretion, then fluid, a constriction arises. Here the hair imbibes the lubricating material destined to keep it pliant. Above this the neck widens like a funnel, but the space is filled with epithelial *débris,* and any overplus of sebum, even in health.

When the scalp is attacked by the trichophyton, the mycelium creeps down into this, and there further stimulates unnatural epidermic proliferation. Hence the upper part of the follicle becomes choked with dry particles, at once caused by the parasite, and also furnishing the best and most congenial soil for its further development. This places an additional obstacle in the way of remedies intended to penetrate within the follicle.

Since "idiopathic cure," when it occurs, is the result of the falling out of the hair, before ringworm can be cured, all the diseased hairs must be got out of the follicles. The various methods of epilation, the establishment of an artificial kerion by croton oil, the solution of the fat from the follicles by turpentine, the setting up of dermatitis by acetic acid, carbolic acid, and particularly chrysarobin and the use of the X-rays, are discussed, the author considering them all unsatisfactory and unreliable. He recommends (1) that the affected scalp must be kept bare of hair until the microscope shows freedom from the trichophyton; (2), that it should be washed twice daily with fluid superfatted potash soap and warm water, the soap being poured on a piece of wet flannel and moderate friction employed; (3), the use of the following modification of an old formula of Sir William Jenner: ℞ Precipitated sulphur, 1 drachm; salicylic acid, beta-naphthol, ammoniated mercury, of each 10 grains; lanoline, or vasogen, 1 ounce. This must be rubbed in for ten minutes slowly and carefully twice a day. The steady saturation of the permeable epidermis with substances hostile to the fungus is the point aimed at.

"Cross Infection," So-called, in Fever Hospitals. By Dr. Claude B. Ker.—By "cross infection" is usually understood the contraction by the patient of some infection other than that for which he was originally admitted into hospital. And it is always presumed that the second infection is derived, directly or indirectly, from patients who are being treated for that infection in some other part of the hospital. The author, who is superintendent of the City Fever Hospital, Edinburgh, investigates the cases of "cross infection" occurring in that institution during the year 1899. These were as follows: Of 1,034 cases of scarlatina 38, or 3.67 per cent., contracted measles, and 4, or .38 per cent., varicella; of 331 cases of measles 8, or 2.4 per cent., took scarlatina; while of 147 cases of diphtheria 4, or 2.7 per cent., caught scarlatina. The author considers the customary explanations of this phenomenon, viz.: (1) contraction from other patients in other wards: (2) air infection; (3) conveyance by officials from one ward to another; (4) transference through nurses mingling at meals; (5) inadequate disinfection of wards before a different disease case is nursed in them. The author negatives all these views, considering the infection comes from outside either by (1) a wrong diagnosis made outside; (2) the admission of a patient with two diseases, only one of which has been diagnosticated, and (3) the admission of patients suffering from one disease and incubating another.

On Some Medical Superstitions. By J. L. Bunch, D. Sc., M. D.—An interesting historical article.

Points of Practical Interest in Surgical Gynæcology —II. Some Pitfalls in Gynæcological Diagnosis. By Dr. H. Macnaughton Jones.—The author calls attention to the following groups of cases: When the physical signs indicative of an abnormal state of the pelvic viscera are slight, inappreciable or altogether absent, with the presence of other visceral neuroses or reflected morbid phenomena, occurring in such organs as the brain, eye, ear, throat, etc., or the cranial nerves, may lead us to conclude that the origin of the mischief is not seated in the sexual organs. Pain is often misleading. Severe pain may occur without tangible physical signs, leading to the idea of hysteria or neurosis; yet there may be follicular degeneration with thickening of the albuginea and recurrent localized peritonitis, etc. On the other hand, a case is recorded of the removal of pus tubes and sacs from a woman apparently robust, whose only troublesome symptom was incontinence of urine, "without any pain whatever to speak of," while on examination an enlarged uterus was pushed out of the pelvis, which was filled by a mass so hard and unyielding as to lead at first to the suspicion of a fibroma. On operation "the uterus and ovaries were found imbedded in the old exudation, a mass of adhesions binding everywhere together the uterus, tubes and ovaries." The habit of concentrating attention on subjective and reflected phenomena arising out of disease of the degenerative organs often leads to inadequate examination of other organs upon which symptoms such as ocular troubles, cranial neuralgias, migraine, etc., may depend. A floating kidney is a frequent source of reflex phenomena. Renal, hepatic and other tumors are liable to be mistaken for floating kidney; the complication of abdominal tumor by ascites or pregnancy. The error of mistaking the earlier symptoms of appendicular inflammation for inflammation of the adnexa and pelvic peritonitis may in fulminating cases lead to a fatal result through the delay. Many other points are referred to.

Revue de médecine, July, 1900.

Tuberculosis: the Normandy Public Care Experiment. By Dr. Raoul Brunon.—This article deals with the open-air and rest treatment of consumptives in Normandy, whether in cities or in the country, since 1892. Out of fifty individuals treated, fourteen have either been cured or received such amelioration as amounts to a cure, for they are able to work. The best results were attained with those who were kept in the plain country in the summer and in the mountains or at the seaside in winter. Even the gravest manifestations, including the laryngeal, says the author, are curable in the climate of Normandy, if the treatment is begun early enough and followed systematically.

The Gastro-intestinal Troubles of Nervousness. By Dr. Dubois.

The Thunderbolt Symptom. By Dr. C. Féré. [The leading feature of this article is made the subject of editorial comment in this issue of the *Journal,* under the title of Love at First Sight in Pathology.]

The Nasal Tabetic Crisis. By Dr. Henri Jullian.

La Presse Médicale, July 7, 1900.

Pyrexias of the Tropics and their Reaction to Quinine.—M. E. Legrain says that a point of diagnosis between malarial fever and other febrile diseases of the tropics, lies in the fact that the former always yields, even at a selected time, to a single dose of quinine properly administered, while the latter do not react in this way.

Individual Tongue Depressors.—M. Georges Baudouin urges the employment of suitable wooden spatulas as tongue depressors, to be thrown away after a single use as a prophylactic measure against syphilis.

Alcohol as a Disinfectant. By M. G. Fischer.

July 11, 1900.

Cicatricial Stricture of the Oesophagus and Intra-ediastinal Abscess.—M. J. Potarca reports such a case hich he operated upon by entering the mediastinum om the right side, a procedure which he first carried out a cadaver. He found the operation easy and urges its nployment since it is the only means of treatment.

Suture of Wounds of the Liver.—M. Canac-Marquis scribes a method of securing hæmostasis in wounds of c liver.

July 14, 1900.

Achondroplasia.—M. Pierre Marie describes in detail is condition, a form of fœtal rachitis with disturbance cartilaginous ossification in which the patients may row to adult life. The study is illustrated by many pho-graphs.

azette hebdomadaire de médecine et de chirurgie, July 8, 1900.

Tertiary Syphilitic Diarrhœas.—M. A. Fournier and . L. Lereboullet, narrating a number of cases of suba-ute and chronic diarrhœa in luetic subjects, affirm the pecific nature of the ailment and emphasize it by the pecific action of iodide of potassium which effected a ure.

Blenorrhagic Phlebitis, Partial Gangrene of the lans Penis, Corpora Cavernosa and Urethra.—By M. atut. (See *New York Medical Journal,* June 16, 900).

July 15, 1900.

Kernig's Sign in Meningitis.—M. P. Roglet finds n explanation of Kernig's sign. In a healthy subject laced in a sitting posture, when the leg is fixed on the high, the muscular fibres are stretched to their extreme imit and their elasticity undergoes but slight exhaustion. f there is an irritation of the cord, however, by an in-ammatory exudate or a purulent secretion, there is an ncrease of the muscular tonicity which diminishes the lasticity and the length of these muscle fibres, and com-lete extension then becomes impossible because of their hortening.

Lyon Médical, July 8, 1900.

Congenitally Open Intra-ventricular Septum with-ut Cyanosis.—M. C. Vinay narrates two cases of this ongenital anomaly and enters exhaustively into the ymptomatology and pathogenesis of the condition.

Coagulation of the Blood under Pressure. —M. M. hanoz and M. M. Doyou, judging from experimental vidence, conclude that the coagulation of the blood under ressure, brought about by the lab-ferment, is unaccom-anied by electric phenomena.

July 15, 1900.

Removal of the Hypertrophied Prostate by a Median rans-ano-rectal Incision. By M. Jaboulay.

Two Cases of Pernicious Anæmia. By M. Tolot.—hese cases present no points of special interest.

Cacodylate of Sodium. By M. A. Latarjet.—The vriter reports the results of the use of cacodylate of odium in various diseases. The drug was administered n three ways: (1) by mouth in the form of pills contain-ng .025 milligramme of the active principle; (2) by ectum, as a daily injection, in increasing doses from .01 entigramme to .05 centigramme; and (3) hypodermati-ally in progressive doses from .02 centigramme to .05 centigramme. The last method was found to be the best. It was given to three cases of pulmonary tuberculosis, three cases of acute rheumatism and one case each of joint tuberculosis, grave anæmia and diabetes. In all the medicament was well tolerated, the appetite stimulated and the body-weight increased. The cases of rheumatism were benefited, but in the other cases no sensible effects were noted. The blood count in the case of anæmia did not rise, and the temperature remained elevated in the cases of pulmonary tuberculosis. In only one case was the use of the medicine followed by the appearance of albumin in the urine. So that cacodylate of sodium is recommended as an adjuvant in general hygienic treatment.

Wiener medizinische Blätter, July 12, 1900.

Relation of Respiratory Diseases to Other Diseases.—Dr. Eugen Felix continues his observations, pointing out the ulceration of the vocal cords that may accompany leukæmia and the pharyngeal paræsthesias and pareses that may be associated with anæmia. Laryngospasm is not uncommon in rachitis, and pharyngitis may be an early sign of diabetes and may be present in gout. The author goes into detail in the various relations which exist between the diseases of the upper respiratory passages and constitutional diseases. (*To be continued.*)

Therapeutic Value of Urotropin.—Dr. Emil Suppan says that although urotropin is not infallible, it has a bactericidal and pus-controlling influence of marked value. It is of special value as an adjuvant in cases of cystitis requiring irrigation, and particularly so in cases of enlarged prostate with more or less urinary retention.

Therapeutics of Genuine Epilepsy.—By Dr. Ladislaus Has Kovec. (Conclusion.)

Wiener klinische Wochenschrift, July 12, 1900.

Ætiology of Basedow's Disease and Thyreoidism. By Dr. Robert Breuer (*To be continued*).

Recurrent Tetany in Pregnant Women. By Dr. C. Hödlmoser.

Centralblatt für Gynäkologie, July 7, 1900.

On von Bruns's Paste as a Dressing for Wounds. By Dr. A. Döderlein.

Artificial Abortion; Its Indications and Its Absolutely Sure and Safe Performance. By Dr. Oehlschläger.—There is nothing new in what the author lays down as the indications for terminating gestation artificially, but he lays stress upon inducing abortion very early, within a few days or weeks after menstruation has failed to take place. He introduces a curved metallic catheter to the very fundus of the uterus, and through it he injects from forty-five to sixty minims of tincture of iodine. Withdrawing the catheter, he then lays a tampon against the os uteri to absorb any of the iodine that may trickle into the vagina. This procedure, he says, is so simple and so utterly devoid of danger that the patient may be allowed to go to her home immediately after its performance and need not even be instructed to go to bed. Usually on the third day a discharge of blood makes its appearance, and the expulsive action of the uterus comes into play. If these things do not occur the procedure is to be repeated. Oehlschläger declares that he has followed this practice for a number of years and has never observed any untoward results from it.

July 14, 1900.

The Cure of Rectal Prolapse by Restoration of the Pelvic Floor. By Dr. Ott.

On Medullary Narcosis in Parturition. By Dr. Oskar Kreis. (See the *New York Medical Journal* for July 28th, page 159.)

Archiv für pathologische Anatomie und Physiologie und für klinische Medicin, June, 1900.

Percussion of the Heart. By Dr. R. Oestreich.

Yellow Fever in Central America. By Dr. Prowe.—The author gives an account of experiences in the epidemic which prevailed from 1893 to 1899 in Central America, especially in Salvador. He pithily summarizes the clinical picture in this sentence: Whoever has seen severe poisoning with phosphorus, arsenic, potassium chlorate, and the like, or with toxines, knows yellow fever. When he comes to speak of the ætiology, he deals somewhat severely with Sanarelli, calling him the typical bacteriologist with blinders (*der typische Schenklappen-Bakteriologe*). He seems to approve of the quarantine maintained in the southern portions of the United States.

Fragmentation of Elastic Fibres. By Dr. Carl Davidsohn.

Malignant Adenoma. By Dr. F. Selberg.

On Nucleus Arrosion and Nucleus Fenestration Under the Influence of the Cell Sphere. By Dr. E. Ballowitz.

On Local Tumor-like Amyloid of the Larynx, Trachea and Bronchi, with Consequent Laryngotracheal Stenosis. By Dr. Adolf Glockner.

Deutsche Medizinal-Zeitung, July 9, 1900.

Results and Technics of Vaccination.—Dr. Paul Schenk advises a small scarification and the introduction of as little vaccine as necessary. Large incisions and repeated inunctions of the virus increase the inflammatory reaction and the danger of infection. Secondary infection must be carefully guarded against until the wound is completely healed.

Carbonic Acid Inhalations in Influenza. — Dr. Wiederhold reports encouraging results from this form of treatment in respiratory influenza.

July 12, 1900.

Limitations to be Applied to Chronic Rheumatism.—Dr. Edward Weisz points out the manifold characteristics and complications of chronic rheumatism.

Riforma Medica, July 10, 11, and 12, 1900.

A Contribution to the Treatment of Movable Kidney. By Dr. D. Biondi.—The writer has operated in three cases according to the Lloyd-Tuffier method, in two cases according to Guyon's method, and in one case by a combination of these two procedures. He found that the results were unsatisfactory in many respects. The sutures may give rise to hæmorrhages, to infiltrations of urine, or to intrarenal suppuration, especially if they pass through renal tissue to the skin, as Johannesco recommends. In Guyon's operation the small and friable portion of the parenchyma that is included in the sutures easily gives way to the pressure of vomiting after ether, etc., and even during the operation one can see that the sutures partially tear the parenchyma at every respiratory movement. In all the operations the kidney is fixed too deep, in contact with the margins of the lumbar incision, so that the flow of urine may be impeded. Senn removes the adipose capsule throughout the whole extent of the wound, scarifies the fibrous capsule, surrounds the lower pole of the kidney by a loop of gauze, tampons the whole wound, and ties the gauze over the tampons. This he leaves in place for from six to eight days in order to let adhesions form and to fix the kidney to the parietes. In his last eleven cases the writer used no sutures. He removed the adipose and fibrous capsules of the kidney, and fixed the organ in its proper place by means of tampons of gauze, with which he filled the entire lower part of the wound. In from six to eight days the kidney was found firmly fixed in its place. This method has one disadvantage, namely, that the tampons prevent the wound from healing by primary union, but this is also the case with other methods, in which the oozing of urine will prevent primary union. The connective tissue that is formed around the kidney after this operation does not compress the organ and has no effect on its functions. All his patients were permanently cured.

On the Clinical Value of the Iodophilous Cells in the Blood. By Dr. S. La Franca.—The writer reviews the literature of the iodine blood-reaction which has been described by Ehrlich, and gives the results of blood examinations in chlorosis, chloro-anæmia, pernicious anæmia, and diseases of the heart and liver. He found iodophilous cells in chloro-anæmia, in both mild and severe secondary anæmia, in leucæmia, and in one case of suppurating echinococcus cysts of the liver. The examination of the leucocytes and the study of the different varieties of white cells present did not give any exact means for determining in what conditions the iodophilous cells appeared. The writer does not believe that a relation can be established between the gravity of the disease and the number of these cells in the blood. He finds that these cells exist in the blood, not only in suppurative processes and in pneumonia, as many writers have asserted, but also in diseases of the blood that are not accompanied by suppuration. He also finds that their presence is not necessarily accompanied by leucocytosis, as Livierato has stated, for he has obtained the iodine reaction in the blood of patients with hypo-leucocytosis.

Gazzetta degli ospedali e delle cliniche, July 8, 1900.

The Treatment of Surgical Tuberculosis with Iodine. By Dr. Giuseppe Mortari.—The writer quotes Bassini's statement that surgical tuberculosis, being a local manifestation of a general infection, cannot be cured by operative measures. The conservative treatment of surgical tuberculosis is now favored more and more by rational surgeons, in spite of the great advances in operative technique. The author describes the method proposed by Durante, which he has used on a large scale with satisfactory results. This consists of injections of iodine and potassium iodide solutions under the skin, into the muscles, and into the cavities and sinuses. The action of iodoform emulsion, which has so long been used for this purpose, is due to the liberation of iodine. But this takes place very slowly in the tissues at the normal temperature. The iodine-potassium-iodide solution, however, is much more prompt and efficient. He employs the following formula:

℞	Iodine.	4½ grains;
	Potassium iodide.	45 grains;
	Glycerin.	each, 750 grains.
	Distilled water.	
M.		

A report of eleven cases of tuberculous osteitis, osteomyelitis, synovitis, etc., is appended. The author concludes that iodine is the sovereign remedy in these surgical affections.

Journal of Obstetrics and Diseases of Women (St. Petersburg), May, 1900.

Concerning the Origin of Climacteric Disturbances. By Professor Fedoroff.—The writer maintains that the nervous and vasomotor phenomena that accompany the menopause and that are observed in women after oophorectomy are due to the absorption by the blood of a substance formed in the mammary glands owing to the absence, atrophy, or atony of the ovaries. He bases this assertion on a number of clinical and physiological facts that prove the connection between the mammary gland and the uterus. Injections of Poehl's glycerin extract of the mammary glands of pigs into female rabbits produced a lowering of the blood pressure. In fibroid tumors, in hæmorrhagic metritis, and in mastodynia the administration of Poehl's extract by the mouth caused diminution in the size of the fibroids, decrease of the hæmorrhages, and disappearance of the pain in the breast. The question as to the connection of breast and uterus can be solved experimentally, *e. g.*, by transplantation of the breasts of a woman upon a man, followed by castration of the latter, or by observations on castrated false hermaphrodites of the type of androgynous gynæcomasts. These subjects present the best material for the study of the rôle of the breast, because of the coexistence of testicles and breasts, that precludes the possibility of a connection between the nerve centres and the ovaries that is regarded by some authors as the origin of the menstrual molimina in women whose ovaries have been removed. The author cites a number of cases from literature in which the subjects undoubtedly had testicles and mammary glands and exhibited the vasomotor and nervous phenomena of the menstrual molimen. In one case an hermaphrodite gynæcomast was castrated and observed after the operation; he showed the characteristic disturbances of the menopause. In another the psychosis that accompanies the climacteric was observed after castration. In an hermaphrodite of the male type (hypospadic) without gynæcomastia these phenomena were absent after castration. The symptom-complex accompanying the menopause is due, not only to the influence of the ovarian substance, which acts as a vasomotor tonic, but also to the paralytic effect of the mammary substance. The alteration of these actions probably causes the normal menstrual phenomena. In andromasts, *i. e.*, individuals with testicles, uterus, and male breasts, the male sexual type predominates, and there are never any disturbances of a menstrual character. Hence the breasts are important in hermaphrodites in determining the sexual type of the individual.

Pathological Changes in the Placenta in Eclampsia. By Dr. K. Ulesko-Stroganova.—The lesions found by this author in the placentas of eclamptic women may be summed up as follows: Widely diffused necrosis, hæmatomas, atelectasis, hyperæmia and dilatation of the bloodvessels of the villi, and distinct hyperplasia of the syncytium forming numerous nodules projecting into the intervillous space (so-called placental giants). These changes testify to profound alterations in the placental circulation. Whether the hyperplasia of the syncytium is due to a compensatory growth to replace the necrosed tissues, or whether it is due to the irritant substance in the blood of the eclamptic woman, it is impossible to tell at present. It is also impossible to say whether the changes here noted are present in eclampsia only or whether they may also occur in other affections.

Obstetrics in Paris. By Dr. N. I. Ratchinsky.

Concerning the Changes in Ovarian Tissue under Different Conditions of Transplantation. By Dr. V. V. Preobrajensky.

Chirurgia (Moscow), June, 1900.

Experimental Data concerning the Use of Gelatin in Medicine. By Dr. S. M. Dobrochotoff.—The writer's conclusions are as follows: 1. If injected into the subcutaneous tissues or into a serous cavity, gelatin is absorbed by the blood and circulates unchanged. 2. It is eliminated by the kidneys in an unaltered condition without producing any changes in the kidneys themselves. The urine does not contain any albumin or any casts. 3. Intravenous injections of gelatin do not produce injurious effects upon the organism. 4. Injections of gelatin have no perceptible effects upon the respiration, the blood pressure, or the heart's action. In this the writer's results vary from those of Spiro and those of Bauermeister. 5. As regards increased rapidity of coagulation of the blood, he finds that, contrary to the general opinion, such an action cannot be attributed to gelatin. On the contrary, when introduced into the blood, this substance tends to retard clotting. This retardation begins immediately after the injection and gradually increases, reaching its maximum in about three hours. At the end of twenty-four hours the retarding action almost ceases; at the end of four days the rapidity of coagulation becomes normal. A second injection again retards the clotting. 6. It is impossible to attribute the cure of aneurysms of the oarta by gelatin injections to an increased tendency to coagulation on the strength of the above-mentioned data.

Osteoplasty of the Lower Jaw. By Dr. V. Zykoff.—Various devices have been employed to repair defects in the inferior maxilla. The writer considers the use of pieces of living bone for this purpose. These pieces may be removed entirely from some bone in the same individual, or they may be cut so that a pedicle is left, attaching the bony plate to the bone from which it was taken. The pieces of bone that are transplanted must be perfectly aseptic, and must include periosteum and medullary substance, in order that the plastic operation may be successful. The writer reports a case in which he performed osteoplasty of the lower jaw by a very simple method. A large part of the bone was necrosed after noma in the region of the lower lip and chin. A plastic operation was first performed, closing the defect in the lower lip by flaps of skin taken from the cheeks and the neck. But this was not satisfactory, for there was continuous salivation and there was an ugly deformity of the lower part of the face. An incision was made along the lower border of the jaw, the bone was exposed, and a plate was sawed from the left side of the jaw, comprising about one-third of the height of the body of the bone and about one-half its thickness [judging by the illustration]. The bridge was a trifle longer than the gap in the middle part of the jaw that was to be bridged over. One end of this bridge was fitted into the depression on the left side produced by the excision of the plate, the other into a depression on the right side of the jaw made with a chisel for this purpose.

The rather profuse hæmorrhage from the medullary cavity of the bone was arrested by plugging with surgeon's wax. The bridge was sewed to the frenum of the tongue by means of a deer-tendon suture. The wound healed promptly.

Two Cases of Intestinal Obstruction. By Dr. P. Kischensky.—The first case was one of diaphragmatic hernia that was not diagnosticated during life. The patient died with the phenomena of severe intestinal obstruction five days after admission into a hospital. The opening in the diaphragm was situated in the muscular portion, in a spot that corresponded to the upper border of the eighth rib, between the mammary and the anterior axillary lines, about two inches from the free edge of the false ribs, and the same distance above the place of attachment of the diaphragm. The opening was nearly round and about three inches in circumference. The omentum and peritonæum were firmly adherent to the edges of the opening. The prolapsed gut was not adherent, but was tightly wedged into the aperture and could not be freed. The prolapsed structures included a large part of the omentum and a part of the transverse colon. There was no hernial sac, but the omentum everywhere surrounded the prolapsed loop. It is probable that the omentum entered into the opening before the gut was engaged. There was a history of violent physical exertion. The second case was one of intestinal obstruction caused by the pressure of an echinococcus cyst of the liver.

A Case of Chronic Periorchitis. By Dr. A. A. Alferoff.—This case was remarkable on account of the changes found in the testicle and its envelopes. The testicle was removed on the diseased side, castration being indicated by the atrophied condition of the organ and by the chronic periorchitis. The thickened tunica vaginalis was removed with the testis and the cord was ligated. The cavity of the tunica contained some turbid fluid that had a very foul odor. The walls of the testicular envelopes were decidedly thickened by the growth of new connective tissue. The internal surface of the sac was irregular, nodular, hard, and calcareous to the touch. Beneath this lining, which was detachable, there was a similarly nodular fibrous surface. The testicle was practically a bag filled with masses of cholesterin. The epididymis could not be distinguished. On microscopical examination, crystalline masses of cholesterin were found in the remains of the testicle, the lining of the sac was found to be calcified, and the rest of the wall was found to consist of masses of connective tissue.

Miscellaneous.

Lead as a Possible Cause of Azoturia.—Dr. A. W. Balch (*Journal of the Boston Society of Medical Sciences,* May), owing to the similarity between certain of the symptoms existing in azoturia and those commonly found in lead poisoning, examined the urine and tissue specimens taken from normal horses. In both urines and tissues lead was found in cases other than azoturia, but the amounts were *much* larger and the lead was much more widely distributed in the azoturia cases. The organs examined included brain, liver, spleen, kidney and psoas muscle.

Dr. W. R. Brinckerhoff, supplementing Dr. Balch's chemical investigations in the same journal as a result of eleven autopsies on undoubted cases of azoturia, reaches the following conclusions:

1. The acute degenerations of the liver and kidney, the proliferation of epithelioid cells in the lymph follicles of the spleen, and the focal necroses in the liver are similar to lesions found in man during various of the acute infectious diseases. In the case of the human being such changes are generally regarded as manifestations of a toxæmia. 2. The pigmentation of the spleen indicates nothing more than a destruction of blood corpuscles, and is common to a number of diseases in both man and animals. 3. The degeneration of the psoas muscle is quite analogous to the Zenker's degeneration seen in typhoid fever. 4. The chronic interstitial nephritis would indicate either that some toxic substance had acted for a considerable time, or that there had been previous attacks of an acute nature. We have, then, the picture of a pathological process combining chronic and acute factors. This condition seems most reasonably explained by postulating the presence in the organism of a toxic substance, preferably one capable of causing both acute and chronic changes.

Ergot in Prostatic Diseases.—Dr. Eugene R. Corson (*Atlanta Journal-Record of Medicine,* July), reasoning from the view that the prostate is the homologue of the uterus, has used ergot largely in prostatic diseases. He has found it of great service in congestion and inflammation of the prostatic urethra due to gonorrhœa, and in sexual weakness dependent upon some prostatic inflammation, when, for instance, sexual desire is strong but the sexual act is imperfectly performed, due to premature orgasm. In the opposite condition, when the sexual function is strong and overindulgence has induced backache, pain at the base of the bladder and a discharge of prostatic and urethral mucus, often mistaken for seminal fluid, ergot is also useful, combined possibly with bromide of potassium. In the prostatic enlargement of advancing years it is also useful, though surgical treatment must by no means be neglected.

Sulphonal in the Treatment of Glycosuria.—Casarelli (*Journal de médecine,* July 8th), as the result of his investigations, concludes as follows: 1. Sulphonal exercises a favorable influence on diabetes, determining diminution in the quality of sugar, urine and polydipsia. 2. This is manifested in only a slight degree, it is true, even after the administration of from fifteen to thirty grains daily; but it becomes particularly marked after doses of forty-five grains in the twenty-four hours, repeated for several days in succession. 3. Even when continued for a long time, sulphonal in a dose of thirty grains does not cause any troublesome after results. Given in forty-five grains daily, it is from the first well borne, but if its employment is prolonged it is soon followed by extreme somnolence and vertigo. But the reduction of the dose is all that is necessary to disperse these troubles. 4. The beneficial influence of sulphonal is manifested equally well with a mixed diet as with an absolute flesh one, but if, in the last case, the sulphonal is suspended, sugar in abundance promptly reappears in the urine. Before using sulphonal the author tried antipyrine, but the results obtained therewith were greatly inferior to those subsequently found from sulphonal.

Losdorfer's Bodies in Syphilitic Blood.—Dr. Victor Neudörfer, of Vienna (*St. Paul Medical Journal,* July), says that at the Vienna School of Medicine Dr. Losdorfer has discovered in the blood of syphilitics bodies that seem to be characteristic of this constitutional disease and that are perhaps the specific germ of syphilis. The author reviews the principal previous researches in this field and details the general professional scepticism with which Losdorfer's preliminary communication after a year and a half of profoundly secret labor were received. But when he stated that the blood of 125 syphilitics had been examined and the examinations checked by Professor Paltauf in his laboratory, who endorsed his conclusions, more attention was accorded, since Paltauf, the professor of pathology and bacteriology, is himself a profound and scientific scholar and the incarnation of scepticism.

Losdorfer's description is as follows:

On examining the blood of a recently infected individual changes cannot be noticed, even during the first four or five weeks. Where the disease is progressing the lymphatic glands are swelling and the general condition of the patient is growing worse, the bodies often appear in the blood before the exanthema is developed. This statement is of essential importance.

If a fresh drop of blood is placed on a sterilized slide, covered with a sterilized glass, and examined with 1-12 immersion Zeiss or Reichert and an Ocular No. IV., there are found in the parts of the specimen which do not contain red blood corpuscles, long oval bodies about the size of the large or acidophile granules of the so-called eosinophile leucocytes, but less glistening. These bodies can often be found immediately, but usually they do not appear earlier than after from two to three hours. At first they are mostly situated within the meshes of the fibrinous network and do not move. Later on they show a movement and form chains of two or four. After eight hours from six to ten bodies may be present in one chain and it is not uncommon, if the investigation started in the morning is interrupted by the night, that from twelve to twenty bodies form one chain. The examination of the blood in the hanging drop is still more satisfactory. After twenty-four hours there are often a hundred and more bodies found. Since these bodies have a lower specific gravity than the red and white blood corpuscles they go on the top of the drop and therefore this method of examination is the best.

Besides these small bodies larger ones can be noticed forming lobulated bodies, which distinctly show their origin from an aggregation of the small ones and present a granular appearance. In some cases both varieties can be demonstrated, while in others there is only one to be found.

Whether these chains and groups take their origin by division or by budding, or whether they are formed by aggregation, is not yet decided. The groups vary in number. In some cases they can only be found occasionally, in others they are so numerous, that in every field of vision a considerable number of bodies can be noticed, and they show a great movement, so that the whole specimen seems to be living. They are influenced by temperature and the medium temperature of a room seems to favor their development. The mercurial treatment seems to decrease them, because after from ten to fifteen inunctions they are less in number and they disappear after the twentieth and twenty-fifth inunction. Their appearance is not limited to a certain stage of the disease, although they can be more easily found after the first eruption appears. Losdorfer was able to detect them also in later stages, *e. g.*, rupia, gumma and ulcerations even in hereditary lues. Besides these 125 cases of syphilis, the blood of healthy individuals and of patients suffering from all kinds of diseases (sixty cases) have been examined in the same line without finding the small granulated chains or anything similar to them. Losdorfer is not prepared to speak about the question whether these bodies are the specific germ of syphilis, because neither he nor Paltauf has been able to stain them in a proper way or to get an idea about their nature. Being very careful and sceptical himself he will not make any conclusions, but he will only call the attention of all microscopists to the fact that these bodies are present in the syphilitic blood, that they have movement, and a characteristic quality of forming chains and groups which appear on the top of the drop of blood, if examined in the "hanging drop," situated above all other corpuscular elements that may be present in the blood. He hopes by further investigations to be able to find out more about them.

Losdorfer believes that the motion of the bodies is molecular and that the size of the bodies varies in different patients, in some instances the smaller bodies only being present, while in others the larger variety prevail. If the specimens are dried and fixed the bodies do not take stains, while in the fresh specimen some of them take the methyleneblue, others do not, so that they differ in their staining properties and therefore also perhaps in their nature. On using osmic acid they sometimes present a gray color; diluted acetic acid makes them more distinct, while ten per cent. sodium hydrate solution dissolves them. Their chief characteristic seems to be their quality of accumulation on the top of the drop. The fact is peculiar that they do not appear if the specimen is placed in the thermostat, while the common room temperature develops them even if they have been previously the whole night in the thermostat. Paltauf thinks that the bodies and their aggregations are products of coagulation and destruction, which have something to do with the change of the blood occurring in syphilis.

Kaposi, the great skin authority, also acknowledges the fact that these bodies are found in the syphilitic blood. He agrees with Losdorfer that they might be characteristic of syphilis, but he cautions against early conclusions and will await the result of further investigations, which will be done now on a large scale in his clinic. Nevertheless, he congratulates Losdorfer on his discovery, which undoubtedly is very important and interesting and may prove of great clinical significance in the future.

The Problem of Trephining for Epilepsy.—Dr. David Inglis (*Physician and Surgeon,* July) records the case of a man, subject for two years to attacks of delirious mania. The question arose as to their origin being epileptic. The fact that about two years previously the patient had been struck on the right side of the head with a log chain and that he still experienced painful sensations at the site of the old wound suggested a psychic epilepsy of traumatic origin. On being sent to a surgeon for trephining, however, the surgeon found himself in the predicament of not knowing where to trephine. The scar of the old log chain wound was pretty accurately located over the centre for the left leg, but patient had never had any sign of either spasm or paresis in left leg; in fact he had had no evidence of any disturbance of motion, sensation or function anywhere. To trephine over the centre for the left leg would have been futile. Inasmuch as the symptoms were psychic only, one might say, "Very well, trephine over the frontal lobes"; but on which side? He being right-handed, it was probable that his left frontal lobe would be the controlling centre for his mental processes. So much for the problems to be settled before trephining.

It was finally decided not to trephine, partly in consequence of the foregoing considerations, and partly because periodical attacks of migraine were common to his father and sister as well as to himself, and that the attacks of acute mania always began in like manner with the migraine. From these and other considerations it was decided that these attacks of mania, instead of being epileptic, were manifestations of extreme migraine. The author concludes: "Now comes the instructive feature. The patient has never had his eyes examined, although he has suffered all his life from migraine, and further states that he is unable to continue reading for any length of time on account of his eyes giving out. The attempt to go on reading makes his eyes and head ache. The case deserves to be considered because there is excellent reason to believe that instead of requiring trephining he has long required proper glasses. I suspect that with proper glasses steadily worn and six months' steady use of a few drops of tincture of cannabis indica three times a day, our patient will find a great change for the better, and suspect that an operation for trephining would have cast additional doubt upon an operation which is, in proper cases, of the greatest value."

The After Treatment of Cerebral Concussion.—Mr. Charles Stonham, F. R. C. S. (*Clinical Journal,* July 18th), says that it is a very important thing, indeed, when a man has suffered concussion, to let him have absolute and prolonged rest after the injury. It does not matter whether the concussion has been severe or only slight. The surest way to avoid after-effects is to give him a chance of perfect recovery. In hospital practice this cannot, as a rule, be insured, for the patient has to go back to earn his living, and a matter of days may decide whether he will keep his work or lose it. But in private practice it should be insisted upon, and if the patient has been badly concussed the best course is to advise six months' absolute rest. During this time he should abstain from all business or worries of any kind; he should not bother himself about anything whatever. The best plan is for him to go down to a little country place, and avoid all excitement. Many of these patients or their friends will ask that he be allowed to go to some well-known health resort, but this should be discountenanced, for such places are not calculated to afford the mental rest which is so needful. The author once heard a London surgeon say that the best thing for the patient was to go down into Kent, lie on his back, and watch the apples grow.

Diabetes Mellitus.—Dr. R. Saundby and Dr. R. F. Williamson (*Practitioner,* July; *Medical News,* July 21st) give their respective views upon this subject. Saundby believes that the causes of the disease may be divided into (*a*) the conditions in which the liver is no longer able to reserve and store up glycogen, and (*b*) into those in which the sugar-consuming powers of the tissues are reduced. These result from (1) various functional and organic diseases of the nervous system of which neurasthenia must be placed in the front rank. The organic diseases consist chiefly of tumors of the medulla. (2) Pancreatic diseases, including fibroid, fatty or calcareous degeneration. (3) Injuries or diseases of the liver itself. (4) Poisons, of which alcohol is the chief. Simple glycosuria does not mean diabetes, but when it does not disappear readily under treatment and there is added polyuria, thirst and failure of nutrition the diagnosis is clear. The author believes that the best results are obtained from a restricted diet rather than from drugs, and he advises the use of such a dietary as would allow the patient about 500 grains of sugar-forming carbohydrates in twenty-four hours. It is desirable to continue the strict diet for some days or weeks in order that the tissues may regain part of their lost sugar-consuming power, and the duration of the regimen must depend upon the result upon the patient. The presence of acetone or diacetic acid in the urine demands an increase in carbohydrates. Milk is believed to be a very good food for such subjects, and can be given to diabetics without a corresponding increase in the sugar excreted. So far as drugs are concerned a grain of the extract of opium at bedtime is often beneficial in giving sleep and preventing the frequent necessity of voiding the urine. Bromide of potassium stands next in efficacy. Alkaline mineral waters, sodium salicylate and citrate of potassium are valuable in increasing the alkalinity of the blood, and when coma is feared strychnine must be given hypodermically and an ounce of sodium bicarbonate administered by enema in hot water and repeated every hour.

Williamson lays considerable stress upon the so-called idiopathic cases or what Naunym calls the "pure diabetes." To the opinion that these cases without pathological lesions are due to hereditary and congenital defects of sugar metabolism or are of endogenous origin, the author replies that no hereditary tendency can be traced in a large number of cases, and it further seems that it would arise more frequently in younger persons if due to hereditary tendency. The author is inclined to believe that the condition is due to some toxic substances introduced into the system, usually through the alimentary tract. In some severe cases the sugar excretion may gradually diminish as the fatal termination approaches; and here the pressure of some other poison appears very probable. In mild forms, intermissions frequently occur under treatment suggesting that the toxic material is not being absorbed. Experiments on animals have shown that diabetic urine, when given in large quantities to a dog, will produce glycosuria and this result is obtained when the sugar has been removed. Leo believes this toxic product to be the result of the action of micro-organisms. The contents of the intestine of a diabetic when injected into a dog will produce glycosuria, which does not happen when the intestinal contents of a healthy person are employed. Recent experiments, therefore, seem to promise some light on the cause of the disease and especially on the possible origin of many cases in an intestinal toxine.

Hyoscine for Cramp.—Dr. Henry S. Noble (*Yale Medical Journal,* June) says that many persons suffer excruciating agony from a spasmodic contraction or cramp in the muscles of the lower extremities upon retiring at night after having subjected the muscles to some unusual exertion during the day. Sitting for a long time in some constrained attitude, whereby the muscles undergo an unusual tension and become unduly wearied, is often sufficient to bring on the trouble, either at once, or a few hours later when the individual has retired for the night. Very often the misery does not come on until just as the person wakes on the following morning and is in the act of stretching. It is most apt to occur in persons past fifty years of age. It will be found that 1-120 or 1-100 grain of hyoscine, given half an hour before retiring, will entirely obviate the trouble and insure the lasting and heartfelt gratitude of any person who has ever experienced the agony of cramp before.

Hyoscine.—Dr. Henry S. Noble (*Yale Medical Journal,* June), as a result of many years' constant use of this drug among the insane, has formed the following conclusions:

1. It is not by any means the case that all patients behave the same under its administration, nor is it every case that will be benefited. Among patients laboring under acute or recurrent excitement, two or three cases out of every five are benefited, and in the recurrent forms of insanity attacks of maniacal excitement are frequently averted.

2. Old people, and those whose general health is below par, are most profoundly affected by even very moderate doses of the remedy. It is therefore always imperative to begin in such cases with the minimum dose.

3. He has found the remedy just as efficacious by stomach as hypodermically, when used in the same doses, although the action is not perhaps quite as rapid.

4. A tolerance for the drug is not established except within certain limits. He also says that, if after gradually and cautiously increasing the dose up to about 1-60 grain, the desired effect is not obtained, it is entirely useless to increase it farther. In the use of hyoscine the toxic effects of large doses are to be avoided. They do no good and even endanger the life and health of the patient.

5. Frequent doses are not required. He rarely gives more than two doses in twenty-four hours. If the desired result cannot be accomplished by two, or possibly three, moderate doses, one in the morning and the others in the afternoon or evening, it is useless to repeat the dose more frequently. A remedy should not be converted into a poison.

6. Hyoscine does not act as a hypnotic, except in a peculiar way, wholly different from opium, chloral, cannabis indica, sulphonal or paraldehyde. It produces sleep indirectly, by allaying cerebral excitement and morbid motor activity. Numerous combinations may be made with hyoscine. Hyoscine with bromide of potash and hyoscine and chloral are the two most commonly employed.

7. The author has never obtained anything like curative effects from the use of hyoscine. He has, however, in numerous instances been able by its judicious use to keep subjects of recurrent insanity and *folie circulaire* in the convalescent halls, who otherwise would have been obliged to spend fully one-third of their time in the excited wards. The plan usually pursued in these cases has been to give the patients, at the first intimation of approaching excitement, an active cathartic, usually a mercurial, and to follow it by from 1-100 to 1-75 grain, never more, of hydrobromate of hyoscine morning and evening. It is always desirable to avoid producing, by too large or too frequent doses, any specially unpleasant or disagreeable effects. It is quite unnecessary to do so, and, moreover, is apt to defeat the end in view.

Book Notices.

A Cyclopædia of Practical Medicine and Surgery. A Concise Reference Book Alphabetically Arranged of Medicine, Surgery, Obstetrics, Materia Medica, Therapeutics and the Various Specialties, with Particular Reference to Diagnosis and Treatment. Compiled under the Editorial Supervision of George M. Gould, M. D., and Walter L. Pyle, M. D. Philadelphia: P. Blakiston's Son & Co., 1900. Pp. x-1018.

"It has been our object to prepare in one handy volume, concisely and authoritatively, the most important facts in all branches of medicine and surgery that are of working value to the active practitioner." This statement, with which the authors begin their preface, describes no ordinary undertaking, and when we say that the object has been attained we express our great admiration as well as equally great surprise. The cyclopædia of medicine is usually too much, both for authors and for editors, and as a rule the product of their efforts is very far from being "practical," however the title page may proclaim the contrary. The task is a difficult one because in the very nature of a cyclopædia it must be complete and exhaustive, and therein is the ruin of the editor, for in his effort at completeness he almost invariably sacrifices any title that his book may have to being practical. It requires a cool head and a clear judgment to avoid these dangers, and for the greater part cyclopædias of medicine are of little value save for a semi-annual reference.

It is difficult to describe the volume before us, and one must imagine all that is clinical at the present day as being briefly and yet sufficiently set forth under an alphabetical arrangement, with frequent illustrations, with many formulæ and diagnostic distinctions, and with perfect homogeneity; then he will have a fair picture of the work. We feel sure, however, that many of our readers will make the better acquaintance of the book by becoming its possessors, and we commend it to them without hesitation. We have yet to find wherein it is erroneous or disappointing, and we regard it as of unlimited value to the average medical man.

The American Yearbook of Medicine and Surgery. Being a Yearly Digest of Scientific Progress and Authoritative Opinion in all Branches of Medicine and Surgery, drawn from Journals, Monographs and Textbooks of the Leading American and Foreign Authors and Investigators. Collected and Arranged with Critical Comments by Samuel W. Abbott, M. D., Archibald Church, M. D., Louis A. Duhring, M. D., D. L. Edsall, M. D., Alfred Hand, Jr., M. D., Milton B. Hartzell, M. D., Reid Hunt, M. D., Wyatt Johnston, M. D., Walter Jones, M. D., David Riesman, M. D., Louis Starr, M. D., Alfred Stengel, M. D., A. A. Stevens, M. D., G. N. Stewart, M. D., Reynold W. Wilcox, M. D., J. M. Baldy, M. D., Charles H. Burnett, M. D., J. Chalmers DaCosta, M. D., W. A. Newman Dorland, M. D., Virgil P. Gibney, M. D., C. A. Hamann, M. D., Howard F. Hansell, M. D., Barton Cooke Hirst, M. D., E. Fletcher Ingals, M. D., W. W. Keene, M. D., Henry G. Ohls, M. D., Wendell Reber, M. D., and J. Hilton Waterman, M. D. Under the General Editorial Charge of George M. Gould, M. D. Volume I. Medicine. Pp. 3 to 656. Volume II. Surgery. Pp. 3 to 560. Philadelphia: W. B. Saunders, 1900. [Price, $3, each.]

The volumes for the year 1900 compare very favorably with those of former years, and in their publication separately instead of in one book there is a distinct advantage, the very bulk of the former issues having been the chief objection to the work. Several editorial changes have been made within the past year, but the names of the new editors lead us to expect that the quality of the annual will not suffer thereby. Certainly the work before us ably maintains its right to be considered as one of the best of the yearbook class.

Diseases of the Stomach. Their Special Pathology, Diagnosis and Treatment, with Sections on Anatomy, Physiology, Chemical and Microscopical Examination of Stomach Contents, Dietetics, Surgery of the Stomach, etc. By JOHN C. HEMMETER, M. D., Philos. D., Professor in the Medical Department of the University of Maryland, Baltimore, etc. With many Original Illustrations, a Number of which are in Colors, and a Lithograph Frontispiece. Second Enlarged and Revised Edition, with New Chapters and Additional Illustrations. Philadelphia: P. Blakiston's Son & Co., 1900. Pp. xix-17 to 887. [Price, $6.]

THE second edition of this excellent work is a very complete revision of its predecessor, and much new material has been added. Of the additions, the most important are the article on hypertrophic stenosis of the pylorus, that on obstruction of the orifices, and added matter on motor insufficiency. Many new illustrations have also been added. The work, as our readers probably know, is a very elaborate one and, what is better, a thoroughly able and valuable one. The book well deserves its success.

A Digest of External Therapeutics. With Numerous Formulæ Arranged for Reference. By EGBERT GUERNSEY RANKIN, A. M., M. D., Physician to the Metropolitan Hospital, Department of Public Charities, New York. Second Edition, revised and enlarged. New York: Boericke & Runyon Company, 1900. Pp. viii-754. [Price, $3.50.]

THE present edition of this work does not differ materially from the first, though some few additions have been made. This is natural, however, for but six months have elapsed since its original appearance; indeed, the brevity of this interval is the surest proof of the popularity of the book and certainly must be a source of satisfaction to the author.

Diseases of the Gall, Bladder and Bile Ducts, including Gallstones. By A. W. MAYO ROBSON, F. R. C. S., Senior Surgeon to the General Infirmary at Leeds, etc. Assisted by FARQUHAR MACRAE, M. B., C. M. (Glas.). Second Edition. New York: William Wood & Company, 1900. Pp. xii-11 to 313.

EXCEPTING for the facts that the form of this work has been changed from that of the lecture to that of the treatise, that accounts of the author's recent operations have been included, and that new chapters have been written on chole-cystitis and on gallstones, the book has undergone no material change in its second edition. The superiority of the book is beyond question, and the memory of the former edition is far too fresh to demand extended comment.

Anæsthetics: Their Uses and Administration. By DUDLEY WILMOT BUXTON, M. D., B. S., Member of the Royal College of Physicians, London, etc. Third Edition. London: H. K. Lewis. Philadelphia: P. Blakiston's Son & Co., 1900. Pp. xvi-320. [Price, $1.50.]

DR. BUXTON'S work is too well known to require description to our readers, and its third edition is simply a modernization of its second. Progress in anæsthesia and its methods has been rapid of late, however, and a very considerable revision has therefore been necessary. A large part of this revision has been the omission of obsolete matter, for the detritus of anæsthesia had become very considerable, but there have also been added many new methods and procedures that are now receiving attention. The chief additions relate to nitrous-oxide anæsthesia, its administration in combination with oxygen, Flux's method and the later methods of prolonging its action. Schleich's solutions for general anæsthesia and Bier's method of intrathecal cocainization are also described. For a very complete and excellent treatise upon anæsthesia one can do no better than to possess himself of this little work.

Die specielle Chirurgie in 60 Vorlesungen. Ein kurzgefasstes Lehrbuch für Aerzte und Studirende. Von Dr. EDMUND LESER, Professor an der Universität in Halle, etc. Vierte vermehrte und verbesserte Auflage. Mit 330 Abbildungen. Jena: Gustav Fischer, 1900. Pp. xvi-1092.

IN this book the wide field of regional surgery is treated in as thorough a manner as the limits of a single volume will allow. In places completeness had to be sacrificed for brevity, but the topics that are of interest to the student and the beginner in practice are treated at considerable length.

The narrative style of the lecture adds to the attractiveness of the book and gives the work an element of the personality of a successful, enthusiastic teacher. The fourth edition has been enlarged by the additions made necessary by the advances in surgery since 1897. Special attention is given to the consideration of the value and the limitations of Röntgen photography in surgical diagnosis.

Although diagrammatic figures are always useful for didactic purposes, many pen-and-ink drawings in this book are so poorly done that they should never have reached the "process man." A number of cuts sadly need touching up by the graver. The original illustrations are certainly in contrast with the general make-up of the book.

Fliegenlarven als gelegentliche Parasiten des Menschen. Von Dr. ERICH PEIPER, a. o. Professor an der Universität Greifswald. Mit 41 Abbildungen. Berlin: Louis Marcus, 1900. Pp. 76.

THIS monograph treats of the effects of the lodgment of the larvæ of various species of flies in the skin and the mucous membranes of the mouth, conjunctiva, etc. (myiasis externa), or in the gastro-intestinal tract (myiasis interna). The account of the larvæ of *Lucilla macellaria,* a species of the *muscidæ,* is particularly interesting to American physicians, as the habitat of this insect is in the Western States of our own country as well as in Central and South America. Of course these larvæ occur much more frequently in cattle, but they have often been observed in man. The illustrations in this book will be useful in identifying the different species of flies and their larvæ. A considerable number of cases of myiasis are recorded or referred to and a bibliography of the subject is appended.

Dermato-histologische Technik. Ein Leitfaden für Aerzte und Studirende. Von Dr. MAX JOSEPH in Berlin und Dr. GEORG LOEWENBACH in Wien. Zweite vermehrte und verbesserte Auflage. Berlin: Louis Marcus, 1900. Pp. xi-125.

THIS little manual will be found useful by the special worker in dermato-histology as well as by the general pathologist. The methods of examination have been selected with special reference to their practical value and to the facility with which they are executed, as tested by the authors in the laboratory. At the beginning of each section the comparative value of the various procedures described is briefly and authoritatively stated. The book gives all the technical methods that are employed in the investigation of lesions of the skin. In this edition several new methods have been added and some errors that had crept into the first edition have been corrected. The book can be recommended to any one who is interested in the subject.

Miscellany.

A Youthful Philosopher.—The *Interstate Medical Journal* for July quotes the following from *Current Literature:* "Dr. McTavish, of Edinburgh, was something of a ventriloquist, and it befell that he wanted a lad to assist in surgery who must necessarily be of strong nerves. He received several applications, and when telling a lad what the duties were, in order to test his nerves he would say, while pointing to a grinning skeleton standing upright in a corner: 'Part of your work will be to feed the skeleton there, and while you are here you may as well have a try to do so.' A few lads would consent to a trial, and received a basin of hot gruel and a spoon. While they were pouring the hot mass into the skull the doctor would throw his voice so as to make it appear to proceed from the jaws of the bony customer, and gurgle out: 'Gr-r-r-gr-h-gh! That's hot.' This was too much, and without exception, the lads dropped the basin and bolted. The doctor began to despair of ever getting a suitable helpmate until a small boy came and was given a basin and spoon. After the first spoonful the skeleton appeared to say: 'Gr-r-r-uh-r-hr! That's hot!' Shoveling in the scalding gruel as fast as ever, the boy rapped the skull and impatiently retorted: 'Well, jist blow on't, ye auld bony!' The doctor sat down on his chair and fairly roared, but when the laugh was over he engaged the lad on the spot."

False Teeth in Ancient Times.—The *British Medical Journal* for June 9th says that in a recently published book, entitled *La Prothèse Dentaire dans l' Antiquité,* Dr. Deneffe quotes a number of passages from the Latin poets which show that false teeth were in common use among the Roman ladies in the first century of our era. Several of Martial's epigrams refer to the subject. Thus in one he speaks of Ægle as having bought herself teeth of bone and ivory. In another Lecania's snow-white teeth are said not to be her own. In another we are told that Galla takes off her teeth just as she does her dress before going to bed. Lælia also has her bought teeth flung in her face. The *Journal* thinks, however, that in regard to another epigram addressed to Maximina, Dr. Deneffe has misconceived the poet's meaning. The passage runs:

> Non dixit tibi, Tu puella non es
> Et tres sunt tibi, Maximina, dentes
> Sed plane piceique buxeique.

Maximina is brutally told that she is no longer a girl, and that she has but three teeth, and those like pitch and boxwood. The reference clearly is to the discoloration of the poor lady's teeth, not to the material of which they were made. Horace, in describing (*Satires,* I, 8) how the two witches ran away, scared by the portentous flatulence of the god Priapus, says that Canidia's false teeth fell out, whilst Sagania dropped her borrowed locks. (Canidiæ dentes, altum Saganæ calicudrum excidere * * * cum magno risuque jocoque videres.) Dr. Deneffe is disposed to give the credit of the invention of artificial teeth to the Phœnicians. A set was found in the necropolis of Saïda (Sidon) by M. Gaillardot in excavating some tombs which are believed to date from six centuries before Christ. Certain objects found with the teeth suggest an Egyptian origin, and it is possible that the Phœnicians may have learned this branch of the dental art from the wonderful people who dwelt by the Nile. It is probable that the Phœnicians, who were great explorers and traders, introduced false teeth into Greece and Etruria, whence in due course they found their way to Rome.

The Mediæval Urologists.—According to the *British Medical Journal* for June 9th, M. Henry Meige contributes to the current number of the *Archives Générales de Médecine* an interesting article on the "Urologists," who in the Middle Ages made a specialty of diagnosticating and forecasting the issue of all diseases by mere examination of the urine. Some of them were bold enough to extend the powers of divination which they claimed to the prediction of all manner of future events. M. Meige traces the beginnings of uroscopy to the Father of Medicine himself, in whose works the significance of the various appearances of the urine is frequently pointed out. His aphorisms on the subject, though vague and obscure enough, have generally some kind of clinical basis, but by filtration through centuries of wild speculation and mere ignorance they had, by the fifteenth century, become a farrago of superstitious nonsense. This was especially the case in Germany, where mysticism was the spiritual atmosphere in which physicians, as well as theologians and philosophers, intellectually speaking, lived and moved and had their being. M. Meige refers to a work entitled *Fasciculus Medicinæ,* by Joh. de Retham, printed at Venice in 1500, which he saw in the German Museum at Nuremberg. It is therein laid down that, according to the transparency of the urine, the man of art might recognize successively *mortificationem, indigestionem, adustionem, excessum digestionis, perfectam digestionem, principium digestionis,* etc. Much importance was attached to the color, the shades of which were differentiated with the finest discrimination—white, pale, palish, orange, reddish, ochre, etc.—each having its corresponding import, which revealed to the practitioner not only what was the matter with the patient, but what was to happen to him in the future. M. Meige gives some reproductions of quaint wood cuts illustrating old medical books, representing the physician reading with the eye of the seer the hidden meanings of the urine, and impressing the patient's mind with his powers of vaticination. The inspection of the urine, it is well known, is the chief means of diagnosis used by Chinese doctors at the present day, and in Europe it continued in use as supplying an indication of pregnancy until a period within living memory. One of Gavarni's plates, which if the *Journal* remembers rightly, is entitled "His First Diagnosis," shows a medical student peering with anxious eye at a bottle presumably containing the urine of a too confiding *grisette* by his side. But even in the sixteenth century there were practitioners who took a sounder view of the clinical significance of the appearances presented by the urine. When Falstaff asks his boy, "What says the doctor to my water?" the familiar imp replied that the learned man had given this exceedingly guarded diagnosis: That the water itself was a good healthy water, but for the party that owned it he might have more diseases than he knew for.

A Medical Socialist.—According to the *Gazette Médicale de Paris* for June 9th, Dr. de Kasimir has given 100,000 francs for the foundation of a socialist bakery, to be erected in the Thirteenth Ward of Paris. De Kasimir occupies a fourth-story apartment that is by no means luxurious. He keeps only one servant and has one reception room decorated in chaste style, scantily furnished, but elegant and inlaid; on the walls are a few pictures. He is a man about forty years of age, tall, slim and of pleasing address. The forehead is high, the eyes sweet, the lips strong and shaded by a grayish mustache, accompanied by a close-cut "imperial." Throughout this physiognomy a gentleness of mien, the most aristocratic of traits, reveals a good and frank nature. Dr. de Kasimir is of Slav origin, but has been a naturalized Frenchman for two years. He speaks French with precision, but with a crystalline accent which lends a charm to his conversation. The donation of a hundred thousand francs is the initial capital for the socialist bakery.

The Determination of Sex.—A correspondent of the *Lancet* for July 7th says that after studying more than 300 marriages with the object of discovering some of the conditions likely to give rise to a relatively high percentage of boys, he has come to some conclusions, which he now gives for what they are worth. His conditions, thrown into rules, are: 1. "Do not marry the eldest daughter of a family, but rather the youngest. There is a progressive increase of boy-producing power from the eldest up to the youngest daughter. 2. Do not marry one whose age differs much from your own; and do not marry much under or over thirty. 3. Do not marry a widow. 4. Do not refuse to marry a cousin or an only daughter. No doubt there are other factors to be taken into account, but here we have some rather important ones." But why are widows barred?

The New York State Custodial Asylum for Feeble-Minded Women.—Dr. Marie Louise Benoit, until recently a medical interne of the Craig Colony for Epileptics, has been promoted on the civil service list to the office of resident physician to the asylum.

Dried Oysters.—A correspondent of the *New Orleans Times-Democrat* cited by the *New York Times* for July 28th relates how a Chinese storekeeper, Lee Yip by name, opening the lid of a big box, took a handful of what looked exactly like oysters carved in mahogany. They were not shriveled and warped, like other dried foods, but were as plump and symmetrical as any well-conditioned bivalve fresh from the deep shell. The only difference was that they were dark brown in color and as hard as bricks. When Lee Yip tossed them back into the box they rattled like a handful of marbles.

The oysters are caught and prepared at the big native shrimperies on the other side of the lake. The process is a trade secret, but as nearly as could be gathered from Lee they are spread on the tops of large sheds and exposed to the sun for several weeks. What prevents decomposition the writer does not know; but they come out of the operation as sweet and brown as nuts.

The correspondent recently tried some. They were brought in in a bowl and formed a sort of stew or *sauté*, which was really delicious. The oysters themselves were firm but exceedingly tender, and had a peculiar peppery flavor, different from anything else he had ever tasted. The Chinaman who did the cooking said that he had simply boiled the dried oysters in water and added a strip of pork and "seasoning." When the writer tried to probe into the seasoning feature he suddenly lost command of English, so there, he suspects, the secret resides. He is told that the local colony consumes many barrels of these oysters every month and that large quantities of them are sold in San Francisco and New York.

We think it not unlikely that they would prove an excellent and convenient food for invalids, especially those away from a good base of supplies, and would suggest a further investigation.

The Cornell University Medical College.—The *Announcement* for the session of 1900-1901 contains a cut of the handsome new building fronting on First Avenue, facing Bellevue Hospital. It is to accommodate not only the school but also a dispensary.

Homicidal Mania.—The *Southern Clinic* for July, referring editorially to a murder trial in which it had prophesied the probability of the murderer, who had killed a physician in his house, being allowed to ride free of punishment on the usual scapegoat—insanity—says: "We did not miss the mark very far, though the manner in which the trial culminated was indeed a monstrous surprise to us; for a Virginia jury was found able and willing to reach a *compromise verdict* of three years in the penitentiary for the defendant as an atonement for one of the most cold-blooded, cowardly, and deliberate murders ever committed in this State." Hereupon the *Southern Clinic* comments forcibly as follows:

"The homicidal maniac kills *without motive*, kills anybody, at any time, and has no anxiety about the outcome as far as he is concerned. He generally kills those that are around him—the nearest and dearest. But we have never heard or read of a case in which a paranoiac killed a man under similar conditions as those under which Riddick killed Dr. Temple. When a man shows a tendency to kill people generally, regardless of who they may be, *he is insane*. When a man shows a decided desire to kill a certain person, he is a murderer at heart; when he kills him, he is *a murderer in fact*, and deserves the rope!"

American Fellows of the Royal College of Surgeons of England.—We learn that at the recent centenary meeting of the Royal College of Surgeons of England, the honorary diploma of the Fellowship was conferred upon Dr. W. W. Keen of Philadelphia, Dr. Robert F. Weir of New York, Dr. W. S. Halsted of Baltimore and Dr. J. C. Warren of Harvard. Canada was similarly honored in the persons of Sir W. H. Hingston and Dr. T. G. Roddick of Montreal and Dr. I. H. Cameron of Toronto.

The Government Relief of Famine in India.—So much supineness has been laid to the charge of the British government in India in regard to the relief of public calamities such as the plague and famine, that it is satisfactory to learn on the authority of the Secretary of State for India that £13,000,000, or sixty-five million dollars, have been expended by the government in famine relief alone during the past two years.

Original Communications.

AN INVESTIGATION INTO THE CAUSES OF SO-CALLED URIC-ACID LESIONS, AND A RATIONAL THERAPEUSIS OF THE URATIC DIATHESIS.*

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In a preliminary report, published by the author some months ago (*Journal of the American Medical Association*, July, 1899), the following statements in regard to the probable rôle of uric acid in so-called uric-acid lesions were made. It was maintained—

1. That uric acid is not the *materies morbi* in uric-acid lesions.

2. That uric acid acts pathologically only from its tendency to form concretions.

3. That its formation, far from being a process of self-intoxication, is a process of disintoxication.

4. That the decrease in the excretion of uric acid observed in some morbid conditions is not due to retention, but to non-formation.

5. That the *materia peccans* in uric-acid lesions is the alloxuric bases.

6. That in all so-called uric-acid lesions we find an absolute increase over the normal of the *sum* of uric acid and alloxuric bases, and that this finding is of diagnostic value.

In support of these statements an amplified elaboration of clinic and laboratory findings and a report of the therapeutic results obtained in a larger number of cases were promised and are herewith given.

I. *Critical Review.*—In 1797 Wollaston discovered uric acid in the form of its insoluble salts in the concretions of gout; in 1848, Garrod, by his thread experiment, demonstrated the presence of uric acid in the blood of gouty subjects. These facts led to the creation of Garrod's historic theory which credits uric acid with the primary rôle in the causation of gout and allied lesions.

The significance of the premises on which this universally accepted theory is based is fictitious, and the experimental evidence in support of Garrod's theories is scanty and insufficient.

First, because we find typical cases of gout in which concretions of uric-acid salts are not observed.

Second, because the peculiar location of the urate deposits, when they do occur, demonstrates that they are secondary formations and not the primary cause of the inflammatory processes that are found in their vicinity. Thus, in gouty kidney (nephritis uratica) the inflammatory and necrotic processes are observed in different parts of the kidney than the concretions; the former are found in the cortex, the latter in the parenchyma. In gouty joints the inflammation starts from the synovial membranes, while the concretions are found in the cartilages.

Third, because, however violent the inflammation may be, and though it leads to suppuration and necrosis, uric acid is never found in the exudate.

Fourth, because uric acid in quantities as large as those observed in gout is found in the blood in a variety of diseases; thus Garrod himself found it in the blood of cases of chronic lead poisoning and of nephritis; von Jaksch, Solomon, and Haig in pneumonia; von Jaksch in anæmic and dyspnœic states and in nephritis.

Fifth, because the figures obtained in regard to the plus or minus of uric-acid excretion in gouty subjects during the attack, between the attacks, and in chronic atypic gout do not differ materially from those found in healthy subjects in a variety of non-gouty diseases. The normal figures for a grown person on ordinary diet are given as from 0.7 to 1.2 gramme a day; the values for uric acid in the urine of arthritic subjects fluctuate within these boundaries. Determinations must be made by the exact method of Ludwig Salkowski; the popular method of Heintz is inaccurate and does not indicate an incalculably large part of the uric acid excreted, and sometimes none of it at all.

Sixth, because uric acid is a non-toxic substance. The administration of large doses to a healthy animal produces none of the symptoms of acute uræmia, and the exhibition of small doses for a long time is not followed by any of the disturbances commonly attributed to chronic uric-acid poisoning.

Experiments I to IV.—Four dogs were fed for six weeks with two grains of uric acid daily. The animals remained in perfect health.

Experiments V to VIII.—The same four animals used in the first series of experiments received, under aseptic precautions, for three months (ninety days) hypodermic injections of 0.2 gramme of sodium urate: for thirty days into the subcutaneous tissues of the abdomen, for thirty days into the peritoneal cavity, and for thirty days intravenously. At the expiration of ninety days the animals were killed. The organs were macroscopically sound. Microscopical examinations of the kidneys, the synovial membranes and cartilages of the joints, and of brain tissue were made and revealed no abnormities. Deposits of urates had not occurred.

II. *Uric Acid and the Alloxuric Bases.*—There is a group of substances called alloxuric bases that is chemically closely related to uric acid; they are basic substances readily soluble in the tissue juices. Their chief representatives are xanthin, hypoxanthin, paraxanthin, adenin, and guanin. In contradistinction to uric acid, they have highly toxic properties.

Rachford, Filehne, Paschkis, and Pal are responsible for the statements that a large variety of nervous phenomena, migraine, increase of arterial pressure, and arteriosclerosis are attributable to xanthin, hypoxanthin, and paraxanthin poisoning.

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* Presented to the Section on the Practice of Medicine at the meeting of the American Medical Association, June 8, 1900.

In 1884 Gaucher discovered that the injection into the body of a healthy animal of small quantities of xanthin and hypoxanthin produced marked changes in the excreting cells of the kidney parenchyma (*néphrite épithéliale*); Kolisch and Tandler observed the same. My own investigations corroborate these findings.

Experiment IX.—A guinea-pig received daily injections hypodermically of a 0.5-per-cent. watery solution of xanthin for a period of seventy days. After four weeks albumin was found in the urine. The animal was killed at the expiration of the seventieth day and the kidney parenchyma submitted to microscopic examination. A granular degeneration of the epithelial cells lining the tubuli contorti and a proliferation of the endothelium of the intertubular capillaries was found; the picture corresponds with the *néphrite épithéliale* of Gaucher.

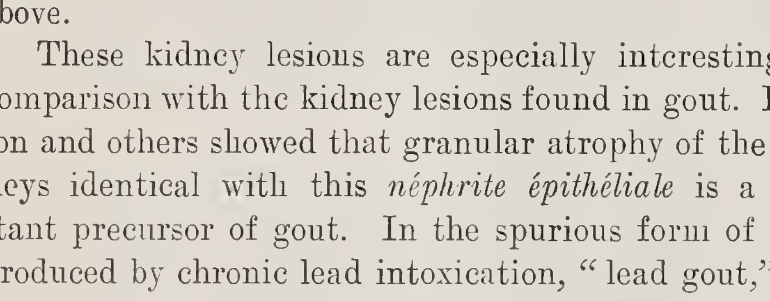
Experiment X.—A guinea-pig, received daily intravenous injections of 0.3-per-cent. solution of xanthin, After two weeks albumin appeared in the urine. At the end of forty-three days the animal was killed. The kidney findings were the same as in Experiment IX.

Experiment XI.—A guinea-pig received daily hypodermic injections of 0.3-per-cent. solution of hypoxanthin; killed after forty days; same kidney findings as above.

These kidney lesions are especially interesting by comparison with the kidney lesions found in gout. Levison and others showed that granular atrophy of the kidneys identical with this *néphrite épithéliale* is a constant precursor of gout. In the spurious form of gout produced by chronic lead intoxication, "lead gout," the same form of nephritis is found (Charcot and Gombault, Coen and Ajutolo). The kidney lesions observed in true gout, "lead gout," and in chronic alloxuric base poisoning are, therefore, identical.

We are indebted to Horbaczewski, Kossel, and Solomon for the knowledge that these alloxuric bases are derivatives of cell nuclein, and for an elucidation of their chemical relationship to uric acid, as follows:

Nuclein, on being subjected to moist heat in the presence of oxygen, gives uric acid; if oxygen is withheld, the alloxuric bases are formed in its stead. Nuclein, uric acid, and the alloxuric bases, if further oxidized, all three yield urea; but it is not possible to convert the alloxuric bases into uric acid by oxidation. (See diagram.)



The leucocytes furnish the bulk of the nuclein. Horbaczewski and his pupils made all their first experiments on the interrelationship of nuclein, uric acid, and the alloxuric bases with leucocytes—*i. e.*, pus, spleen pulp, blood, etc.

With an increase of leucocytes we may expect an increase of uric acid or of alloxuric bases in the blood and urine; it will depend on the oxygenating powers of the organism whether uric acid or alloxuric bases are formed. With normal oxygenation we have formation and excretion of uric acid to the limit of the individual oxygenation powers, and alloxuric bases corresponding to the excess of nuclein catabolism beyond the oxidation powers. A maximum of excretion of alloxuric bases and a minimum of uric-acid excretion is observed where nuclein catabolism is excessive and oxygenation reduced.

This is clinically borne out after the exhibition of drugs, such as quinine, pilocarpine, and atropine, that produce leucocytois; in leucæmia, in which the increase in leucocytes is excessive, an increase in the excretion of uric acid and of alloxuric bases is observed. Immediately after eating, during the digestion leucocytosis, we have an increase of the above substances in the urine; in carcinoma of the stomach, without digestion leucocytosis, this increase is not observed. Spleen extract injected into the circulation of a leucæmic subject produces both a leucocytosis and an increase in the alloxuric bases. In emphysema, the later stages of tuberculosis, certain valvular diseases, etc., on the other hand, where the aeration of the blood is reduced, as manifested clinically by dyspnœa and cyanosis, we have a decrease of the uric-acid excretion and a corresponding increase of the alloxuric bases instead; the same applies to deficiencies in the hæmoglobin economy; and wherever we have cachectic and anæmic states with deficient oxygenation, we may expect to find a decrease in the excretion of uric acid and an increase of the alloxuric bases.

If the nuclein of the white corpuscles is the chief source of uric acid and the alloxuric bases, then an apparent discrepancy exists in normal subjects between the absence of uric acid and of alloxuric bases from the blood and their presence in the urine. The statement, namely, is universally accepted that normal blood is free from uric acid, and that, on the other hand, normal urine contains from 0.7 to 1.2 gramme of uric acid in the twenty-four hours' quantity. This discrepancy is especially apparent in leucæmia, for we know that the urine of leucæmic subjects is very rich in uric acid, and that, according to Salkowski, Landwehr and Bockendahl, Stadthagen and Solomon, no uric acid is found in leucæmic blood.

Various theories have been promulgated in explanation of this phenomenon, the most feasible one being that of Kolisch, who attributes the uric-acid-forming function to the kidney parenchyma, which is said to generate uric acid from "some mother substance," not uric acid nor alloxuric acid, but a catabolic product of nuclein found circulating in the blood. The leading argument against the assumption of such a rôle is the fact that in no form of Bright's disease do we find a diminution of uric acid in the urine unless severely destructive changes have occurred in the kidneys, so that *all* the solids are mechanically retained—as, for instance, in the last stages of Bright's disease, in certain surgical diseases of the kidneys, and probably also in those cases where serious interference with the innervation of the kidneys leads to complete functional inactivity. If the kidneys were concerned in the manufacture of uric acid or of alloxuric bodies generally, the severe damage they undergo functionally and organically in Bright's disease of all forms would certainly lead to a diminution of the quantity of uric acid excreted; such, however, is not the case, and we have the authoritative statements of Frerichs, Van Ackeren, and Stadthagen, and most recently Martin, that in no form of Bright's disease is the excretion of uric acid or of alloxuric bases diminished. The statements of Bartels, Wagner, Fleischer, and others to the contrary are readily explainable on the grounds that their method, that of Heintz, was defective. My own analyses, executed in some forty cases of Bright's disease, by the method of Ludwig Salkowski, never showed a typical reduction in the excretion of uric acid or of alloxuric bases.

The explanation of the discrepancy we are discussing is very much more simple, and we need not presuppose "some substance" in the blood as a precursor of the alloxuric bases and of uric acid, the nature of which has never been explained, the very existence of which has never been demonstrated. Uric acid is a constituent of normal blood and is found there in appreciable quantities. Most investigators contented themselves with Garrod's crude and insufficient thread method, or examined very small quantities of blood by methods which have since been proved to be inexact. If comparatively large quantities of blood are examined and the quantitative determinations are made by exact methods, appreciable quantities of uric acid will be found in normal blood.

If a hundred grammes or more of blood are examined for uric acid by this method, quantities of uric acid varying from 0.019 gramme to 0.028 gramme will be found. When we consider that the normal excretion of uric acid is only from 0.7 to 1.2 gramme a day, and that the total quantity of blood in the human body at any given time is about eight per cent. of the body weight, or equal to fifty-two hundred grammes in an adult person of the average weight of sixty-five kilogrammes, we see that the quantity of uric acid found in a hundred grammes of blood, though small, is sufficiently large to explain the amount excreted.

Twelve examinations of this kind were made, two with blood obtained from the operating table, ten with blood obtained by venesection from normal volunteers. The appended table will show the quantities of uric acid found in each case. Blood serum and corpuscles together were examined.

CASE.	Body weight in kilogrammes.	Amount of uric acid excreted in twenty-four hours.	Amount of uric acid in one hundred grammes of blood.
1.	64.6	0.80	0.021
2.	60.0	1.12	0.027
3.	72.4	0.74	0.019
4.	75.2	1.20	0.026
5.	68.1	0.81	0.021
6.	84.7	0.79	0.023
7.	61.0	1.12	0.021
8.	72.4	0.69	0.021
9.	71.6	0.77	0.027
10.	60.4	0.94	0.022
11.	79.9	0.87	0.028
12.	87.0	1.10	0.026

III. *Laboratory Aids to Diagnosis.*—A study of the excretory abnormities of the urine in so-called uric-acid subjects readily bears out all these statements. The uric-acid nitrogen, alloxuric-bases-nitrogen, and the total alloxuric nitrogen were determined in a variety of diseases. The method employed was that of Krueger and Wulff, as follows:

A hundred cubic centimetres of urine that has been freed from any albumin it may contain are heated to boiling, and ten cubic centimetres of a concentrated solution of sodium bisulphite and ten cubic centimetres of a thirteen-per-cent. solution of copper sulphate added, the mixture is then boiled for about five minutes and allowed to cool. The precipitate that forms is separated from the supernatant fluid by filtration and washed several times with distilled water of 50° to 60° C., then, while still moist, placed in a flask and the nitrogen it contains determined according to Kjeldahl's method. This gives the total alloxuric nitrogen. In another quantity of the urine the uric acid is determined according to Ludwig Salkowski's method; the quantity of alloxuric bases is determined from the difference between the total alloxuric nitrogen and the uric acid. This method seems complicated and tedious, but is exceedingly simple when the solutions are ready and the details of technique are once mastered.

The results obtained are given in the following table:

CASE.	Total quantity of urine in twenty-four hours.	Total alloxuric nitrogen.	Uric-acid nitrogen.	Alloxuric-base nitrogen.
1. Normal	1,560	0.245	0.204	0.041
2. Uratic diathesis	1,620	0.421	0.269	0.152
3. Uratic diathesis	1,870	0.368	0.147	0.221
4. Uratic diathesis	1,540	0.471	0.341	0.130
5. Gout during attack	1,480	0.374	0.160	0.214
6. Gout during attack	1,610	0.324	0.126	0.198
7. Gout between attacks.	1,820	0.391	0.281	0.110
8. Gout between attacks.	1,690	0.264	0.182	0.082
9. Leucæmia	2,020	0.916	0.668	0.248
10. Leucæmia	2,700	0.662	0.318	0.344

Kolisch, in his monograph, gives the following figures; they are significant in the foregoing sense:

CASE.	Total quantity of urine in twenty-four hours.	Total alloxuric nitrogen.	Uric-acid nitrogen.	Alloxuric base nitrogen.
1. Normal	1,200	0.260	0.210	0.050
2. Pronounced gout	2,600	0.449	0.256	0.193
3. Pronounced gout	1,000	0.357	0.163	0.188
4. Uratic diathesis	1,440	0.393	0.273	0.120
5. Gout between two attacks	1,800	0.392	0.165	0.227
6. Uratic diathesis	1,700	0.400	0.360	0.040
7. Child with diathesis	900	0.3047	0.2604	0.0443

In two cases of leucæmia reported by Kolisch and Dostal the following figures were obtained:

CASE.	Total nitrogen.	Alloxuric nitrogen.	Uric-acid nitrogen.	Alloxuric-base nitrogen.	Quantity of urine.
1	20.98	0.846	0.474	0.372	3,200
2	.....	0.536	.....	.....	2,000

What we learn from these tables is that in uratic diathesis and in gout the sum of the uric acid and of the alloxuric bases excreted (the alloxuric body nitrogen) is greatly increased over the normal, whether we have simply the diathesis, or examine a gout case during or between attacks. No regularity is observed in the plus or minus excretions of uric acid, but an increase is apparently always observed in the excretion of the alloxuric bases. The figures given for the four leucæmia cases are interesting and corroborative in the sense that they show the same excretory abnormities in a more pronounced manner in a disease in which also the nuclein catabolism is excessive. These facts were first chronicled by Kolisch; my own analyses were made as control experiments, and they corroborated Kolisch's statements in every respect. With his far-fetched final conclusions we thoroughly disagree.

So far as the uric-acid economy of the body is concerned, the kidneys have a purely filtrating and excretory function, and are in no wise concerned in the manufacture of uric acid or of alloxuric bases. The result, therefore, of our examinations may be considered another valid argument against the much-disputed so-called renal theory of uric-acid formation.

The analysis of the blood in the uratic diathesis and in gout revealed very little of value. Neusser, it is true, described what he calls "*perinuclear Basophilie*"—*i. e.*, the appearance of little bluish-black granules, which are found clustered around the nuclei of the leucocytes; they are very easily demonstrable in all uric-acid cases if the blood is stained with Ehrlich's triple stain, and they undoubtedly form a diagnostic adjuvant in conjunction with other symptoms. The same phenomenon, however, has been observed in a variety of other diseases, notably in leucæmia and in dyspnœic states; also occasionally in normal (?) subjects. In all probability these granules are alloxuric bodies, products of nuclein catabolism. A series of micro-chemical experiments that I instituted in the hope of determining their chemical identity were, unfortunately, not crowned with success, owing to the technical difficulties encountered.

IV. *The Pathogenesis of So-called Uric-acid Lesions.*—We are now in possession of the facts that are observed in so-called uric-acid cases. We have seen that uric acid, an insoluble non-toxic substance, is incapable of producing the vast array of symptoms commonly attributed to its presence in the blood of uratic cases; we have seen, on the other hand, that the alloxuric bases are readily soluble in the tissue juices and are highly toxic; they can produce a series of functional disorders that are similar to if not identical with those observed in the "masked" forms of so-called uric-acid intoxication, and also anatomic kidney changes that are identical with those found in gout; we have not demonstrated experimentally that they are responsible for the joint lesions of gout; but by analogy we are justified in assuming that they prepare a nidus in the joint tissues suitable for the secondary deposit of urates. We have studied the chemical relationship of uric acid and of the alloxuric bases and have gained a clear insight into their histogenesis. From all this we learn that the formation of uric acid, far from producing a self-intoxication, is in reality a conservative and protective process of disintoxication.

A large variety of causes may lead to the uratic diathesis. The best medical minds have been occupied with the subject for decades and many masterful monographs have been published; we need not speak of the apparent influence of heredity, the mode of life (which without the hereditary predisposition can probably never produce gout), nor of divers intoxication, as by alcohol, lead, etc.; whatever the primary or remote cause, the nature of the taint remains excessive nuclein-catabolism—*i. e.*, a tendency on the part of the uratic subject to disintegrate a quantity of nuclein in excess of the normal. At first the normal oxidation processes are capable of converting almost all the nuclein into uric acid, which is duly excreted by the kidneys; at the same time small quantities of the poisonous alloxuric bases are formed; they enter the circulation and pass through the kidneys, exercising all the while the toxic influence they are capable of exerting—*i. e.*, they produce a variety of functional disorders and probably lay the foundation of the anatomical changes they can produce in the kidney parenchyma. As the self-intoxication progresses in severity, vital processes fall below par and therewith oxygenation is reduced. This adds a second factor to the primary cause of the trouble, because with deficient oxygenation even less of the nuclein that is being disintegrated in excessive quantity can be converted into innocuous uric acid, and more of the toxic alloxuric bases are necessarily formed in its stead. While oxidation is still up to par, uric acid is excreted in increased quantity; as oxygenation grows more and more deficient the excretion of uric acid diminishes. The sum of uric acid and alloxuric bases excreted, however, remains uniformly high at this stage. As the disease progresses in severity, whether in the natural course of the affliction or aided by indiscretions in the mode of life, diet, alcoholic excesses, etc., the perversion, too, progresses in severity, more alloxuric bases are formed, and the process of chronic intoxication goes on. It is during this period that in all probability the inflammatory and necrotic changes occur in the joints, kidneys, and elsewhere that prepare a field for the formation and deposit of urate concretions. Virchow calls attention to the analogy that exists between the distribution and localization of these urate deposits and the manifestly secondary deposits of calcareous matter found in a variety of chronic diseases. The urate concretions themselves act as local mechanical irritants and may, of course, just as any other foreign body, set up what we may call tertiary inflammatory changes in the joints and kidneys. In the last stages of the intoxication, finally, where cachexia is extreme, oxygenation reduced to a minimum, where destructive tissue changes have taken place, the formation of uric acid ceases altogether, and only alloxuric bases are poured into the blood in proportion to the (reduced) quantity of nuclein that is still being disintegrated. At this period both the excretion of uric acid and the formation of urate concretions ceases; the alloxuric bases are excreted in large quantities. Finally, the kidneys become incapable of excreting any of the solids, and acute alloxuræmia, "uræmic poisoning," leads to the *exitus letalis*.

In outline this may represent the pathogenesis of so-called uric-acid lesions. Certain cases remain stationary and never progress further than the stage of functional disorders, with increased excretion of alloxuric bases; others gradually enter the stages of concretions—*i. e.*, gout, nephritis, etc.; only a small part reach the terminal stage.

V. *Therapeutics.*—If, now, according to the theories expounded, excessive nuclein catabolism and deficient oxygenation are to be made responsible for the formation of alloxuric bases, and if these are the *fons et origo malorum* in so-called uric-acid lesions, then a rational therapeusis of this group of diseases must be instituted in three directions—viz.:

First, an attempt to increase elimination of the toxines as they are formed.

Second, a reduction of the nuclein catabolism.

Third, a raising of the processes of oxygenation.

Before describing the system of treating so-called uric-acid lesions that we have elaborated and successfully employed in the sense of the above theoretic deductions, it may be of value to briefly enumerate a few efficacious measures that empiric therapy has given us. They comprise chiefly the employment of alkalies and dietary regulations.

The administration of alkalies in uratic cases produces both an increase in the excretion of uric acid and of alloxuric bases; the quantity of uric acid excreted is of little significance in the sense of our theories; the increase of alloxuric bases excreted is in proportion to the increased diuresis, and we failed to find experimental evidence to show that alkalies exerted a specific solvent action on the alloxuric bases, or in any way favorably modified nuclein catabolism or raised oxygenation. We know, however, that preceding or accompanying any acute exacerbation of uratic symptoms we have an acidulation of the blood (probably due to phosphoric acid, which is an important by-product of nuclein catabolism), and we are inclined to attribute the beneficial effects of alkali therapy to the neutralization or alkalinization of the blood. In the dyspeptic disorders which frequently bring about "uric-acid attacks," it probably acts beneficially in the same sense by neutralizing the lactic acid formed in the stomach.

In regard to the diet in uratic cases, opinions are diametrically opposed. One group of extremists interdict as rank poison nine tenths of the normal bill of fare, another group permit every article of diet; between the two a host of faddists have singled out one or the other class of foods and forbidden their use. In the light of our theoretic beliefs, this question of diet resolves itself into a comparatively simple set of rational regulations and restrictions, and it will be found that they correspond essentially with the few empiric rules that, out of all the apparently hopeless chaos of conflicting opinion, have stood the clinic test.

Theoretically, those articles of food which contain certain nucleins, those which contain the nitrogenous extractives (xanthin, hypoxanthin, etc.), and those which are capable of producing leucocytosis should be excluded from the diet of a uratic case; all others should be permissible excepting those which, by producing dyspeptic symptoms or gastro-intestinal irritation of any kind, pervert the normal processes of assimilation and engender lactic-acid fermentation.

Proteids produce a transitory digestion leucocytosis, and should in consequence be interdicted on theoretic grounds; the bad effects, however, that might be postulated from these for a uratic case are fully counterbalanced by the good effects in the direction of increased nutrition and resisting powers that accrue from an animal diet. Some discrimination will have to be exercised according to individual idiosyncrasies, and a great deal will depend upon the kind of proteid food and its mode of preparation. Thus such organs as liver, spleen, thymus, and kidneys, that are rich in nucleins, are certainly to be condemned (Horbaczewski, Kolisch, and Weintraud report an increased alloxuria after the ingestion of these organs). Raw meats and smoked meats (the "red" meats of the empirics) contain the extractives, and are consequently not suitable articles of diet for a uratic case. Soups, meat extracts, sauces, etc., are especially unsuitable, as they contain the extractives in concentrated form; boiled, stewed, and fried meats of all kinds, on the other hand, are permissible.

Eggs and milk are suitable food; it is true they are both rich in nucleins, but of a different kind to those found in the internal organs and in the blood.

The carbohydrates have no specific effect in one direction or the other in a uratic case. They can only do harm when taken in excess, owing to the dyspeptic symptoms they may produce and the lactic-acid fermentation they may engender.

Alcohol is to be strictly interdicted. We know empirically that its use is fraught with danger in uratic subjects; coffee can do no harm; tea, in view of the fact that its alkaloids are chemically related to the alloxuric bases, should on theoretical grounds be interdicted.

Unfortunately, we know of no drugs that are capable of reducing nuclein catabolism, nor does it seem rational to employ drugs that produce a hypoleucocytosis; on the other hand, we should carefully avoid the exhibition of drugs like pilocarpine, atropine, quinine, etc., that we know produce hyperleucocytosis.

We have, however, many tried and effective means at our disposal to raise oxygenation. It is in this direction that our chief efforts have been expended, and the clinic and laboratory results so far obtained lead us to believe that we are on the right track.

To raise the oxygenating powers of the human organism we must aim at three things:

First, to increase the oxygenation powers of the red blood corpuscles by increasing their number and the percentage of hæmoglobin in the individual cell.

Second, to increase the oxygenation powers of the individual protoplasmic body cell.

Third, to supply as large a quantity of oxygen in the respired air as possible, and to promote its absorption by the lungs.

In order to attain the first object, it has been my practice to treat every uratic case according to the same rational principles that would apply in the treatment of a case of secondary anæmia. Iron is administered in excess, both in organic and inorganic combinations; two to four grains of Quevenne's iron or of Blaud's mass are administered with the object of binding the sulphureted hydrogen and other acid decomposition products of intestinal fermentation and of permitting the absorption of the organic iron which is administered afterward in the form of medullary glyceride, hæmaboloids, or some one of the other good preparations in the market. Arsenic is administered on the same principles as it would be given in an anæmic case—viz., to prevent disintegration of corpuscles. I usually prescribe a Blaud's pill separately and the arsenic in the form of Fowler's solution in combination with medullary glyceride or hæmaboloids.

The second object—viz., the raising of the oxidizing powers of the protoplasmic cells—can be attained by general "tonic" treatment; the demands, in this instance, of the individual subject must be studied and ministered to. It is here that hygienic measures have so large a scope and that massage, hydrotherapy, electrotherapy, etc., have a field.

The third postulate is the one that has apparently furnished the most gratifying results: uratic cases are markedly benefited by the inhalation of oxygen gas. The results obtained are so striking, both as regards amelioration of the subjective symptoms of the patient as well as the clinic and laboratory findings, that they merit chronicling. The method of administering oxygen is simple. The gas is procured in cylinders. At each treatment about five gallons are allowed to stream into a rubber bag with two stopcocks, and the patient inhales through a rubber tube and glass mouthpiece from the bag. Those physicians who are located at a distance from large centres, and who can not obtain the gas in cylinders, can readily procure a simple form of oxygen retort and gasometer and generate their own oxygen at a very small expense. The patient is instructed to exhale thoroughly, then to fill the lungs with oxygen, to remove the tube, and to breathe a little more air until the chest is expanded to its fullest capacity. He is then instructed to hold the gas as long as possible and then to exhale slowly. This operation is repeated until the prescribed quantity of oxygen has been taken. By this method the gas is held for a time under pressure and the maximum absorption obtained. In the beginning inhalations are given daily, later every other day, and finally twice a week. Treatment should be given for a period of at least three months.

In conclusion, a few urine analyses of typical uratic cases before and after oxygen inhalations may be given. The figures are so suggestive and seem to bear out the theoretic postulates made so completely that they are considered possibly the most positive evidence adduced toward the validity of our theories.

CASES.	BEFORE OXYGEN INHALATION.			AFTER OXYGEN INHALATION.			Normal subject
	I.	II.	III.	I.	II.	III.	
Total alloxuric nitrogen	.421	.368	.471	.462	.390	.487	.245
Uric-acid nitrogen....	.269	.147	.341	.381	.304	.436	.204
Alloxuric-base nitrogen	.152	.221	.130	.081		.051	.041

These figures show that the urine voided immediately after oxygen inhalation contains much more uric-acid nitrogen and much less alloxuric-base nitrogen than before. The computations in the columns "before oxygen inhalation" were made for the total quantity of urine voided in twenty-four hours; the figures for the columns "after oxygen inhalation" were obtained for one hundred cubic centimetres of urine and then computed for the same total quantity as in the first columns.

The three cases quoted are only a few out of nearly fifty; all show the same relative changes before and after inhalations. It will be seen that the alloxuric-base nitrogen is brought down nearly to the normal minimum, while the uric-acid excretion remains high—in other words, the nuclein, disintegrating in excess with insufficient oxygen, forms alloxuric bases in excess and some uric acid; with plenty of oxygen, uric acid is formed instead, and only a minimum of alloxuric bases.

Whether a permanent cure has been effected in my cases is still in doubt, as no case has been under observation for more than two years, and the great majority only from six months to a year. In no case of incipient functional alloxuræmia (uratic diathesis) has a recurrence of symptoms been observed so far. In well-established cases of gout, where concretions had occurred, and destructive tissue changes supervened, the treatment, of course, could only affect the functional disorders coexisting. We have observed, however, in four or five cases that threatening attacks of gout were apparently aborted if oxygen inhalations were instituted immediately on the appearance of the premonitory symptoms of an attack: also that fewer attacks occurred in old chronic cases of gout after several months' observance of the dietetic, hygienic, and medicinal rules laid down above.

It is not impossible that the perverted tissue habits that we make responsible for so-called uric-acid lesions—viz., excessive nuclein catabolism, with or without relatively deficient oxygenation—may even be "educated" back to normal.

THE ÆTIOLOGY OF DIPHTHERIA,
AND
THE VALUE OF ANTITOXINE.

A FURTHER CRITICISM ON DR. HERMAN'S VIEWS.

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"Rip Van Winkle" is not asleep in Delaware. At least he is sufficiently awake to have noticed the recent contribution of Dr. Herman to the *New York Medical Journal* for April 28, 1900, which contribution purported to be A Reply to an Attempted Defense of Antitoxine, but is nothing but a repetition of the ill-chosen arguments advanced in his previous papers on the subject.

My only excuse for the late appearance of this paper is that my "official berth" kept me unusually busy. "Better late than never."

I must state at the outset that in my criticism of Dr. Herman's contribution there is nothing of a personal nature. To me he represents a group of conservative men who rise up in arms against any new invention, because either they do not possess the necessary qualifications to grasp it, or were not the first to discover it. While a certain amount of scepticism is beneficial in our age of rapid progress, yet it often reaches a point beyond which it becomes absolutely dangerous and should be vigorously combated. This point has been reached by the anti-antitoxinists.

In the present paper the author will attempt to show that the Klebs-Löffler bacillus does bear an ætiological relation to diphtheria and that antitoxine is its natural antidote, supplementing what has already been stated in his previous paper, Antitoxine in the Light of Scientific Investigation, *International Medical Magazine,* October, 1899.

In his reply to that contribution, Dr. Herman makes his "contention good by figures taken from my own table" and with a degree of fairness characteristic of the class of men he represents, he omits the years 1885, with 1,928 cases, 1890, with 1,792 cases, 1891, 1,764, 1892, 2,074, and 1893 with 2,450 cases. All of these years are mentioned in the "table of the cases of diphtheria treated in the hospitals of Berlin from 1885 to 1898." "The figures," he says, "are not garbled and they do not lie." But they are garbled by Dr. Herman. If we take the total of the four antitoxine years and compare it with that of four preantitoxine years, the results are quite different from those he obtained by *selecting* the numbers which best suited his purpose. We shall then obtain the number of 8,080 instead of 6,443, as the doctor would have it. And these results do not at all make good the doctor's contention that, thanks to the bacteriological diagnosis, the cases of diphtheria nearly doubled. If the liberty of arbitrary selection of figures may be taken with impunity, why not compare the year 1885 with 1,928 cases with that of 1897 with 1,947 and show that, notwithstanding the universal application of the bacteriological diagnosis, the number of cases of diphtheria remained nearly the same? Of all the doctor's arguments, weaklings as they are, this is the most prematurely born and, by the way, the most useless. He attempts to show that with the advent of bacteriological diagnosis the cases of diphtheria nearly doubled, thus undermining the favorable statistics of the antitoxine advocates. Unfortunately for his argument, statistics are woefully against him. It is generally accepted that epidemics of diphtheria like all other epidemic diseases, occur in waves of quite irregular dimensions, as the following table shows:

CASES REPORTED, AND DEATHS FROM DIPHTHERIA IN THE CITY OF BOSTON FROM 1878 TO 1898.

DATE.	CASES.	DEATHS.	PERCENTAGE.
1878	1,379	448	32.7
1879	1,167	391	33.5
1880	1,715	588	34.2
1881	1,680	601	35.7
1882	1,386	458	33.04
1883	1,415	444	31.4
1884	1,212	345	28.46
1885	1,263	334	26.44
1886	1,188	329	27.69
1887	1,049	316	30.12
1888	1,411	470	33.30
1889	1,814	564	31.09
1890	1,475	401	27.18

DATE.	CASES.	DEATHS.	PERCENTAGE.
1891	831	232	27.91
1892	1,353	414	30.59
1893	1,465	476	32.49
1894	3,019	817	27.06
1895	4,059	588	14.48
1896	4,489	516	11.49
1897	3,398	411	12.09
1898	1,661	170	10.23

To forestall any attempt on the part of Dr. Herman to make his "contention" good by the high figures of 1894, '95, '96 and '97 I will state that the bacteriological laboratory in Boston was established only in 1898, precisely the year in which such a comparatively small number of cases was reported. During that year the laboratory made 1,495 examinations of which only 376 were positive. In connection with these statistics it is noteworthy that notwithstanding the severe epidemics in 1895, '96 and '97, the mortality dropped to 14, 11 and 12 per cent. respectively, reaching the figure 10.23 in 1898, the lowest mortality ever recorded in Boston. *These four years belong to the antitoxine period!* Dr. Herman apparently disregarded the figures in my previous paper which prove conclusively that thanks to the bacteriological diagnosis there are *fewer* cases of diphtheria reported. The following table will make this fact still more evident:

TABLE SHOWING IN HOW MANY EXAMINATIONS DIPHTHERIA BACILLI WERE FOUND.

NAME OF AUTHOR.	Year.	Total Number of Examinat's	No. of Examinations which were positive.
Loos (1)	1895	519	305
Cuno (2)	1894-96	363	291
Zuppinger (3)	1895	122	89
Germonigs (4)	1894-95	1,033	949
Gerloczy (5)	1895	500	442
Egger (6)	1895	121	113
Sevestre (7)	1895	1,140	878
Wesener (8)	1895	100	95
Dieudonne (9)	1996	5,613	4,604
Kossel (10)		265	243
Hewlett and Nolan (11) Bolton (12).		1,000	587

In Bordeaux, in 1896, 618 examinations were made, of which only 288 proved positive.

In the Report of the City Laboratory of St. Petersburg for 1898 we find that the total number of examinations for diphtheria made during the last eighteen months was 1,425. Of these 245 were from healthy individuals, showing diphtheria bacilli in 16. Of the other 1,180 diphtheria bacilli were found only in 382. How can one in the face of these undisputed figures claim that the bacteriological diagnosis is responsible for the increase of reported cases? The fact is that the opponents belonging to Dr. Herman's camp are endeavoring to utilize these statistics to show that the diphtheria bacilli are not responsible for diphtheria, inasmuch as they are not found in every case. But of this latter. It is true that the number of admissions to hospitals increased owing to the quarantine regulations, but this does not by any means increase the total number of cases in a given epidemic. It is also true that the majority of patients admitted to the hospitals in large cities come from poor districts bringing with them the low vitality of the children of the slums. It is therefore not to be wondered at the high mortality in the Philadelphia Municipal Hospital and the fact that antitoxine could not aid Nature in restoring the devitalized organism. The antitoxine mortality in private practice everywhere is far below that of the various municipal hospitals.

Dr. Herman is quite sure that Rauchfuss, quoted by me, is mistaken. "The truth is," he says, "the mortality in St. Petersburg has been fearful, as shown in this table, notwithstanding the general employment of antitoxine." And he forthwith produces "statistics" showing that in 1897 there were 1,905 deaths! But, again, for some reason best known to him, he neglects to give the number of cases in 1897 and the *percentage* of deaths. In quoting Rauchfuss I gave the number of cases in 1897, namely, 7,298. The "fearful" mortality then was only about 26 per cent., much lower than in a similar severe epidemic in 1881-'84. The mortality in that city during last year also reached 26 per cent., while the mortality throughout Russia, under the influence of antitoxine, was reduced to 15-14 per cent. Timaschow (13) states that at the diphtheria congress in Kasan, Russia, which took place in August, 1896, were present representatives from fourteen governments. They reported 15,000 cases treated with antitoxine. The mortality was reduced from 50 to 15 per cent. In the government of Boronjesh, Russia, there occurred in 1897 12,562 cases of diphtheria, one and a half times as many as in 1896. (There are no state laboratories there.) Of these 1,707 died, 87.6 per cent. received antitoxine with a mortality of 11.4 per cent., while the mortality among those who have not been treated with antitoxine was 29.2 per cent. The best results were obtained by injecting during the first three days. Commenting on this comparatively high mortality in St. Petersburg, the *Bolnitshnaja Gazetta Botkina* says that the cause is to be sought in the various factors characterizing the life of the poor in the metropolis: Overcrowding, lack of water, high prices of food, hard labor which takes away most of the parents' time so that they can pay no attention to their sick children, and, in addition, the patients are sent to hospitals when the disease is far advanced.

Similar favorable results were obtained not only in Russia, a country very conservative in the use of any new remedy, but in Italy, Spain, Germany, France, England, Turkey, in short all over the world, wherever antitoxine has been used. Tonkin (14), the hospital physician of Manchester, records 200 cases treated with antitoxine, with the following results: 1. The general mortality was lowered to 3 per cent. when the injection was made within the first three days, and to 12 per cent. when later in the course of the disease. 2. The course of laryngeal diphtheria was rendered milder, and the mortality from this form lessened. 3. The mortality of the tracheotomy cases was lessened. 4. When timely treatment was applied, tracheotomy was resorted to less frequently. 5. The treatment with antitoxine was found equally efficacious in all ages and both sexes. 6. *The development of nephritis was less frequent* (italics mine). 7. Albuminuria occurred rarely and disappeared rapidly. 8. Cases treated within the first two days rarely suffered from post-diphtheritic paralysis, and the mortality from the latter sequela was lessened. 9. The spread of the diphtheritic process into the larynx was not observed when antitoxine was used. 10. The only unpleasant complications were urticaria (14.5 per cent.) and slight pain in the joints (3 per cent.). In the report of the Bacteriological Institute of Bremen (15) we find that altogether 700 injections were made without a single case of sudden death. The mortality decreased from 26-30 per cent. to 6.4 per cent. in 1895, 8.51 per cent. in 1896 and 6.47 per cent. in 1897. Rose (16) gives the following statistics:

Cases.	1896. With Antitoxine.	1882-1893. Without Antitoxine.
	Mortality Percentage.	Mortality Percentage.
Light	11.3	21.5
Severe	25	52.8
Very Severe	50	97
Total	21.4	53.4

Rumf and Bieling (17) show that while in the pre-antitoxine period the percentage of light cases was 55.8 that of the antitoxine years was only 29 and yet the mortality was markedly increased.

"Of course," says Kossel (18), "it would appear superfluous to give statistics of a recent remedy which has been universally tried and found successful, but there are a few antagonists to serumtherapy who, partly without having had personal experience, endeavor to influence physicians against the use of this remedy." He gives the following statistics:

MORBIDITY AND MORTALITY FROM DIPHTHERIA IN CHARITE WITHOUT ANTITOXINE.

WITHOUT ANTITOXINE.

Year.	Cases Received.	Died.	Died in 4 Years.
1886	116	51	316
1887	157	86	
1888	163	92	
1889	167	87	
1890	140	83	308
1891	104	65	
1892	152	83	
1893	168	77	

WITH ANTITOXINE.

Year.	Cases Received.	Died.	Died in 4 Years.
1894	306	41	134
1895	265	39	
1896	115	20	
1897	156	34	

In the Report of the Kaiserliches Gesundheitsamt we find that during the first quarter of 1895 2,228 cases were reported. Mortality 17.3 per cent., and if the moribund cases as well as those who succumbed to tuberculosis were excluded, the mortality would be only 16.7 per cent. Preantitoxine mortality 50 per cent. Of these 2,228 cases there were:

Mild.................. 749 = 33.6 per cent. Recovered....743 = 99.2 per cent
Moderate........... 336 = 15.1 " " ....322 = 95.8 "
Severe...............1,076 = 48.3 " " ....722 = 67.1 "

In the second quarter (April-July) 2,130 cases were reported; mortality 14.3 per cent. Deducting the moribund cases, 13.3 per cent., Cuno (*l. c.*) gives the following figures taken from the report of Dr. Christ's Children's Hospital in Frankfort on the Main:

Year.	Number of Cases.	Mortality Percentage.
1889	121	39.4
1890	247	36
1891	337	22.6
1892	301	33.8
1893	290	43.8
1894, until September 30	214	36.4

Beginning with October 1, 1894, until October 1, 1896, 483 cases were treated with antitoxine to the exclusion of any other local treatment. Of these 282 were severe, 112 moderate, and 89 mild. Total mortality 51 = 10.5 per cent. Of these, five patients died upon admission and twelve of intercurrent diseases which had nothing to do with the diphtheria. No serious untoward effects were noticed. Paralysis was even less frequent. The bacteriological examination was begun in 1895.

As seen from these statistics, the contention that the trophies of antitoxine are made up of light cases is founded entirely on a preconceived notion.

Wishing to fight the doctor with his own weapon and yet fearing lest it becomes tiresome to the reader, I have tabulated the statistics in my possession, so that the favorable results achieved by the use of this sovereign remedy may be seen at a glance.

Name of Author.	No. of Cases.	Mortality Per-cent'ge	Remarks.
Drier (19)	546	16	Preantitoxine mortality, 40%.
Sklowsky (20)	77	20.3	" " 41.5% Severe cases " 43.3%. Preantitoxine mortality, (severe cases), 76.5%.
Sektorow (21)	78	25	Preantitoxine mortality, 65%.
Ippolitow (22)	43,552	12	" " 31-38%.
Slater and Cameron (23)	109	14.4	
McCollom (24)	800	15.1	
Herald (25)	100	None.	
Zuppinger (26)	166	18	
Ganghofner (27)	628	14.3	" " 43%.
Bókay (28)	402	27	Deducting moribund cases, mortality 22.5%.
Békésy (29)	8,912	19.1	Preantitoxine mortality, 43%.
Wehrle (30)	50	24	All cases were severe.
Belin (31)	529	10	Excluding light cases, mortality 19.3%.
Rumf and Bieling (l. c.)	150	19.3	
Walter (32)	135	1.44	Epidemic quite severe.
Monti (33)	249	17	
v. Ranke (34)	225	19.1	Preantitoxine mortality, 42.2-57%.
Cuno (l. c.)	483	10.5	Preantitoxine mortality, 32.6-43.8%.
Blumenfeld (35)	229	8.73	During same epidemic, without antitoxine, mortality 23%.
Gerloczy (l. c.)	401	19.9	Preantitoxine mortality, 44.9-48.8%.
Sevestre (36)	1,140	13.85	Preantitoxine mortality, 47-88%.
Meyer (37)	157	13.1	" " 33.3%
Dieudonne (38)	9,581	15.5	
American Pædiatric Report	1,704	21.12	All these cases were of laryngeal diphtheria.
Walsh (39)	225	8.9	Without antitoxine, mortality 33.2%.
Wenner (40)	432	10.18	Preantitoxine mortality, 40-43.8%.

Here, then, are about 75,000 cases treated with antitoxine with a mortality record far below any ever recorded. And against this overwhelming proof of the brilliant success achieved Dr. Herman opposes the opinions of a few individuals. Were I to indulge in quoting "opinions," I could fill up pages with favorable testimonials of such men as Tyson, Hare, Holt, Loomis, Wilson, H. C. Wood, Tirard, Starr, Anders, not to mention the many esteemed bacteriologists who *investigated* the subject from its scientific aspect.

But even this mortality, low as it is, could be made still lower by the timely use of antitoxine, as is clearly shown by Dr. Herman's figures, by which he intended to disprove the well-known Behring's statement that "Of each hundred patients who receive the ordinary dose of antitoxine during the first forty-eight hours, not even five would die of diphtheria." At the time the doctor was making up his table of the "Results of Antitoxine Treatment" he must have forgotten that 6.7 per cent. means 6.7 out of every hundred, 4.9 per cent. and 5.2 per cent mean 4.9 and 5.2 out of every hundred; thus practically corroborating Behring's assertion. The second day mortality given by Dr. Herman would tend to show either that the New York City Health Department and the London Asylums' Hospitals had to deal with fulminant cases, or else Behring should have limited his time to twenty-four instead of forty-eight hours. That the former supposition is probably the correct one is shown by the experience of Bötticher (41) who reports 185 cases injected with antitoxine within the first four days with a mortality of only 4.3 per cent., and even the American Pædiatric Society's Report quoted by the doctor records a mortality of only 6.15 during the first forty-eight hours.

Dr. Herman finds an opportunity to display his wit in connection with my statement that "Any one practicing in a large city knows only too well that our present century cannot boast of any extraordinary amelioration of the sanitary conditions of our working class." This statement was made in answer to the doctor's assertion that any decrease in the mortality of diphtheria should be accounted for by our improved sanitary surroundings, an assertion as similar to that made by the antivaccinationists as Dr. Herman's logic and train of arguments are identical with theirs. But as wit is no argument, the doctor utterly failed to controvert my statement by calling me Rip Van Winkle, etc. The facts are certainly against him. The only marked improvement in the sanitation of large cities is in the introduction of the water and sewerage systems, and while this has no doubt been instrumental in ameliorating the scourge of water or sewage-bred diseases, it has nothing whatever to do with diphtheria, a disease dependent for its spread principally on overcrowding and for its virulence on underfeeding, two factors which practically characterize the life of the poor in large cities. Experiments performed by Shattock (42) prove that "lowly virulent diphtheria bacilli, when cultivated in broth over which fæcal air is passed, do not acquire toxic properties, even though the treatment be prolonged for a period of two months." In Delaware, a largely agricultural State, diphtheria is only sporadic in the country, unless the patient is permitted to attend church or school, whilst in Wilmington, the only large city in the State with a considerable working population, the disease is endemic almost during the entire year, and it exerts its ravages only in the workingmen's district. In New York city the number of tenement houses has doubled within the last twenty-four years, reaching in 1891 the respectable figure 37,358 with a tenement population of 1,225,000 or a little *over thirty-two persons to each house.* "In no other city of the world are the habitations of the poor as bad as in New York," declared Gould recently. In London, according to the late Professor Huxley, 250,000 people are living in a condition worse than that of the West African savages. "The death-rate of children in the tenement districts," says Mrs. Rogers (43), "tells its tragic story of the results of bad housing. The child death-rate in the tenement wards of Chicago is appalling. In 1898, when the general city death-rate was 14 in 1,000 of the people, the death-rate among children in the Sixteenth Ward was 153 in 1,000, and in the Nineteenth Ward, 140 in 1,000. . . . At present the majority of the tenements are two and three-story frame buildings, accommodating from three to eight families, but the tendency is to build large brick structures covering the entire lot and housing from eight to thirty families. The alleys are built up with small houses, interspersed with stables and saloons. . . . Many hundreds of families live in basements which might more properly be called cellars, as they are six feet or more below the grade of the street." In describing one of these tenement houses Dr. Krapf (44) says: "We pass the throng in the narrow street, make our way through the crowds of children playing on the sidewalks, and enter the dark hallway. The first thing that greets us is the odor peculiar to badly housed humanity. . . . It represents the exhalation of a multitude of people, the toxic products expelled during the process of expiration, which settle on the walls, ceiling, and stairs of these hallways. . . . We ascend one or more flights of stairs. . . . Owing to the expense of artificial lighting the halls are, of course, very dim and though we cannot see the dirt on the balustrades we feel that it is there and only reluctantly take hold of them in order not to fall. We arrive at the rooms we are seeking. . . . There are two or three small rooms, but only one receives direct air and light. . . . On the next floor we pass a door wide open and hear the rattling of sewing machines. . . . We enter. . . . The air is filled with dust and steam, the odor indescribable. The room is filled with people; an elderly man, . . . a wife, a son, a daughter-in-law, two young girls and a number of children, all in one room." A better culture medium for diphtheria and other pathogenic organisms even Koch himself could not devise! I cannot leave this subject without giving a few statements of the *official* reports of some of the boards of health. In the *Twenty-seventh Annual Report of the Health Department of Boston* we read: "Many of the tenement houses in our city were built for single families and have been converted to the use of three, four or more families. Rooms have been divided into small, dark and unventilated ones. Water-closets are put under the stairs, in the cellar, off hallways and in other dark places. Sinks are misplaced in the same way. Garbage, ashes, and rubbish are frequently unprovided for except in unsuitable places. All this badly constructed and misused property is much sought for and completely satisfies a portion of our population, chiefly because of central location and the inherent desire of these people to herd together." Also, we may add, because of the greed of the landlord who squeezes out high rents for miserable accommodations. This enormous increase of badly constructed and overcrowded tenement houses perplexes also the health officials of the Quaker City.

From the *Annual Report of the Philadelphia Bureau of Health*, 1894, we learn that "there has been a tendency recently to remodel old dwellings and to construct new tenement houses of a very inferior class for the purpose of accommodating the demand, principally of persons of foreign birth. Many of these people carry on their work in their apartments and the effect upon their health is plainly discoverable when it is observed that they are crowded in small spaces, passing most of the time within a close and vitiated atmosphere. These buildings have been constructed without reference to sanitary principles and regulations, the main object being to make a small capital go as far as possible in making large returns. . . . Constant vigilance is required to keep the homes of the improvident and careless in a proper sanitary condition. . . . Where people are crowded together in poor accommodations, striving to eke out a livelihood under very adverse conditions, they are very likely to be indifferent to their surroundings."

All these facts plainly show how feeble, nay, untruthful the arguments of the anti-antitoxinists are!

Now we come to the very corner-stone of Dr. Herman's ephemeral edifice, namely, the denial of the ætiologic significance of the Klebs-Löffler bacillus. Unfortunately, the burden of proof rests only with those who affirm, and to deny requires neither knowledge nor reason.

Let us examine the reasons, if reasons they be, for the doctor's bold assertions.

1. The Klebs-Löffler bacillus is not found in every case of diphtheria.

2. The Klebs-Löffler bacillus is frequently found in the throats of healthy individuals.

3. The Klebs-Löffler bacillus is found associated with other micro-organisms, especially streptococci.

1. In the earlier period of investigation the lack of proper skill and familiarity with the methods of cultivating the diphtheria bacillus was responsible for the many failures to find the bacilli, reported by various observers. Positive findings did not exceed 40 per cent. At present, as the doctor himself admits in one of his previous papers, the failures to find the bacilli in typical cases, according to Delephine, range between 4 and 7 per cent. This very fact that the positive results increased from 40 to 93-96 per cent. proves conclusively the correctness of the above assertion.

The belief is gaining ground among bacteriologists that the failure to find diphtheria bacilli in typical cases may be due to either improper preparation of the swab or culture or to the fact that the bacilli, if few in number, may be overgrown by other forms of micro-organisms. Many careful investigators found the bacilli in every typical case. Ritter (45) investigated 324 cases of diphtheria. In 225 the clinical picture was that of diphtheria and the bacilli were found in all. Beck (46) observed 52 cases of pronounced diphtheria and 130 cases of non-diphtheritic affections including the throats of healthy individuals. In 50 of the 52 cases pure culture of the diphtheria bacilli were found. The latter proved pathogenic to animals. In the other two the membranes were preserved in alcohol and sectioned. In both the bacilli were found in the stained specimens. Beck's experience points out another source of error, namely, that in many, if not all cases of negative results, the bacilli could be found on sectioning the membrane, a procedure very seldom practised. Escherich (47) examined 22 cases of diphtheria and found the bacilli in all. During the discussion of Dr. Hill's excellent paper read at the twenty-seventh annual meeting of the Public Health Association Dr. Welch said: "With reference to the divergence between the bacteriological and the clinical diagnosis of the disease, I am of the opinion that nearly every case in which the physician confidently makes a diagnosis on purely clinical grounds of primary pseudomembrane diphteria it is due to the Klebs-Löffler bacillus. It has been our experience in Baltimore that over 90 per cent. of the cases of pseudomembranous angina examined bacteriologically have been proven to be true diphtheria." This statement of our distinguished pathologist, while true in so far as it establishes the fact that in almost every case of true diphtheria, diphtheria bacilli are found, does not, however, take cognizance of the pseudomembranous anginas produced by streptococci. It is these latter cases that are invariably diagnosticated as diphtheria and yet have as much to do with the latter as a boil on the neck. In the Willard Parker Hospital, according to Bissell, where the diagnosis was made by department diagnosticians and confirmed by the best medical practitioners, subsequent bacteriological examinations revealed that from 30 to 50 per cent. of the cases were non-infectious anginas. In my previous paper (*l. c.*) I pointed out how difficult it is to make a clinical diagnosis of diphtheria, and quoted Flint in support of my assertion. The doctor seems to have disregarded this part of my argument. I said: "The constitutional disturbances accompanying diphtheria may occur in any severe inflammation of the throat, and, besides, they are so varied that no clinical picture could be drawn, even by such a keen observer as the late A. Flint." I pointed out that the single pathognomonic sign on which the diagnosis of diphtheria was based, namely, the pseudomembrane, was of little diagnostic value, inasmuch as this diphtheritic membrane might be produced by other micro-organisms as well as chemicals. A few additional proofs here will suffice. Bretonneau succeeded in producing a pseudomembrane in the trachea of a dog by injecting a mixture of olive oil and cantharides. Delafond achieved the same results by injecting chlorine, corrosive sublimate, arsenic, sulphuric acid and ammonia. On the other hand it has been indisputably established that cases of diphtheria may go on to even fatal termination without the formation of a pseudomembrane. The author has examined recently a culture made from the throat of a child suffering from sore throat. No visible membrane was present. The examination showed a pure culture of diphtheria bacilli. The child died of heart paralysis before the report reached the attending physician. This clinical observation was made long before the ætiology of diphtheria was generally understood. In the *Report of the Michigan State Board of Health* for 1888 we find the following remarkably clear observation: "Disagreement in diagnosis frequently occurs, in great part due to different views as to what constitutes diphtheria; physicians frequently holding that nothing is diphtheria except when there is actually found diphtheritic necrosis—the so-called false membrane. The accumulated experience with this disease during its extensive history, and the weight of authority, seem to indicate that, in the adult, *diphtheria is not, as a rule, characterized by the presence of the false membrane* (italics mine), certainly not for any considerable time, so that unless seen just at the right time, no patch is found, and when found it is likely to be small. *Yet such cases are capable of communicating to children unmistakable diphtheria* (italics mine). Also irrespective of age there are 'benignant cases' where there are catarrhal manifestations *but no membrane forms;* and still others where a membrane forms on organs other than those of the throat and thus escapes detection. *These forms of this disease appear to be the most prolific cause of the spread of diphtheria in Michigan. . . . Diphtheria of even the most malignant type often develops from just such cases."* (Italics mine.) How clear all this is in the light of our present knowledge of the ætiology of diphtheria, and yet at the time these observations were made it was thought, as we find in the Philadelphia Bureau of Health's *Annual Report* for 1889, that diphtheria "is simply a sore throat with the impression of foul air upon it, and that the prevalence of the disease depends somewhat upon the condition of the streets of the locality. . . . It is also dependent on damp cellars which are suddenly heated in the fall. . . . During the summer months in many cellars a good deal of vegetable matter is allowed to decay, and when the fires are started in the fall this decayed matter is stirred up and mingled with the dampness of the cellar and prevades the entire house." It is to this chaotic conception of diphtheria that Dr. Herman would have us return!

In more recent times Koplik (48) observed a number of cases of diphtheria presenting the picture of acute lacunar amygdalitis, which could only be diagnosticated by the aid of a bacteriological examination.

Excluding, then, the cases in which failure to find diphtheria bacilli resulted from improper technics, as well as those in which the diphtheria bacilli could only be found post mortem in sections of the membrane; also excluding the pseudodiphtheria which, according to Park (49), are non-infectious and have a mortality of 1.7-2.5 per cent., we have left the cases of diphtheria in which the Klebs-Löffler bacillus is *invariably* found, and these make up 75-95 per cent. of all cases.

2. The crushing argument that the Klebs-Löffler bacillus is frequently found in the throats of healthy individuals will be found on close scrutiny to possess as much weight as the others propounded by the doctor. It is true that healthy individuals are often the carriers of virulent diphtheria bacilli, but 40 per cent. of these, according to Park (*l. c.*), subsequently develop diphtheria. As to the rest, their immunity must be considered as the only possible explanation. "Immunity," says the doctor, "is a handy word which serves to cover medical ignorance." This is true, but while we cannot explain the causes or nature of immunity it is nevertheless as patent as the other mysterious phenomenon—vitality. The doctor denies, or pretends to deny, immunity in diphtheria, and yet he must admit that such immunity exists in relation to all of the infectious diseases. If diphtheria is infectious, and I hope the doctor will not be bold enough to deny this, how does it happen that adults do not acquire the disease as often as children or that children, even in the same family, vary so much in their susceptibility? How does it happen that many individuals who are exposed to small-pox, yellow fever, tuberculosis, etc., still remain well? They certainly must carry about them the virus of these respective diseases. They are immune. Precisely! And this is just the reason why many individuals may have in their throats diphtheria bacilli and still remain well. Natural as well as acquired immunity undoubtedly exists, although observers differ in their opinions as to the nature of these defensive manifestations of the animal organism. The blood of two healthy children in whose throats virulent diphtheria bacilli were present was found by Loos (51) to possess marked antitoxic properties. Another child in whose blood no antitoxine could be found took sick with diphtheria and in fifty to sixty days after recovery showed considerable amount of antitoxine in the blood. Wasserman (52) found that the blood of a large number of in-

dividuals who never suffered from any throat affection contained a considerable amount of antitoxine. In one case in which a child suffered from a very severe attack of diphtheria and was cured by antitoxine I found diphtheria bacilli in the throats of two other children in the same family. These received immunizing doses of antitoxine. One had an elevation of temperature and a slight sore throat, which lasted for forty-eight hours, while the other, a girl of thirteen, remained well, although the bacilli persisted in her throat for two weeks. Here is an instance of artificial immunity.

3. Mixed infection, or the association of streptococci, is not at all as constant as the doctor, and two or three men he quotes, would have us believe. Out of 5,613 examinations, Dieudonne (*l. c.*) found streptococci only in 20 per cent. of the positive results. Hewlett and Nolan (*l. c.*) found in 216 out of 587 a pure culture of diphtheria bacilli. Out of 2,416 examinations made in Berlin in 1895, 1,411 showed a pure culture of Klebs-Löffler bacillus, 206 showed streptococci alone, and 548 diphtheria bacilli and streptococci. Dungem (53) established experimentally the fact that among the several kinds of streptococci found associated with diphtheria bacilli some are not virulent and therefore have no effect on the latter. (The serum treatment in such cases is just as efficient as when diphtheria bacilli alone are present.) Regarding the virulent streptococci, the investigations of Löffler (54) conclusively prove that (1) when inoculated on the lower animals they never produce a disease even resembling diphtheria; (2) they are only found in a limited number of cases of human diphtheria; (3) they are found on and in affected parts along with the diphtheria bacillus; (4) they are found in internal organs in other diseases in which lesions of the epithelium of the mucous membrane occur.

As to the other micro-organisms to which from time to time the credit for producing diphtheria has been given, they have all been found to bear no ætiological relation to diphtheria.

Dr. Herman is quite indignant over the fact that I considered his statement about the beneficient effect of the pseudomembrane ridiculous, and to defend his first blunder he makes a second still more absurd. The pseudomembrane is simply the result of coagulation necrosis, which, like every other form of tissue degeneration, is a foreign substance and only acts as an irritant and pabulum for various micro-organisms. It is not granulation tissue, but *dead* tissue, and Nature makes an effort to throw it off. Even admitting the statement of Morse, quoted by the doctor, that it "is a measure of the degree of leucocytosis," one still fails to see how it can serve a useful purpose. Pus is also " a measure of the degree of leucocytosis," and yet the sooner it is evacuated the better. The exudate of pneumonia is another "measure of the degree of leucocytosis," and yet we are not at all anxious to have it retained in the lungs. The hyperleucocytosis in diphtheria is the result of diphtheritic infection and so is the pseudomembrane. By removing the pseudomembrane we may diminish the hyperleucocytosis, but only in so far as we render the disease milder, just as by evacuating the pus we cause the hyperleucocytosis to subside. Antitoxine exerts the same effect by rendering the course of the disease milder. The pseudomembrane cannot even be said to have a protective function, like a scab or a wound, for not only does it permit the growth of bacteria within it but allows the toxines formed to be absorbed by the organism.

Now comes the bugbear by which Dr. Herman tries to scare the unwary. "Look out, antitoxine paralyzes the heart, produces albuminuria and otherwise kills or maims your patient," proclaims he from the hill-tops. I can assure my readers that if they take the trouble to look up the literature on the subject, they will find that the only untoward effects which could be honestly ascribed to antitoxine are the skin eruption and the slight joint affections, and even in this case there may be exceptions. Schütze (55) reports a case of diphtheria complicated by erythema nodosum and synonitis, *without the use of antitoxine.* This would seem to substantiate the statement made by Baginsky and Bernardberg that these skin and joint affections have occurred before the introduction of antitoxine.

The doctor displays a great deal of self-assurance when he proclaims that my statement to the effect that diphtheria toxine acts *similarly* (I did not say "identically," Dr. Herman!) on man and animals, "departs from the fact in the one important particular that it is not true." Indeed, then, I shall invite the following well-known pathologists to share with me the disgrace of making false statements: Abbot (56) states that "by subcutaneous inoculations in guinea pigs there is produced a local condition that is in many ways analogous histologically to that seen locally in the throat of human beings. By introduction into the trachea of kittens a *pseudomembranous exudate may be produced that is in all respects similar to that occurring in man.*" Stengel (57) says that "when cultures in bouillon are injected beneath the skin of a guinea pig a *fibrinous* inflammation with more or less widespread œdema results, and the animal dies in from twenty-four to thirty-six hours. *Necrotic foci* in the liver and other organs are found post mortem; the neighboring lymphatic glands are enlarged. If the animal survive, paralysis may make its appearance, *as in human beings recovering from the disease.* . . . Internal or visceral lesions (in man) may occur in the course of diphtheria or during convalescence. *They are due to the action of the toxine and not the bacillus. Necrotic foci* in the liver, showing advanced cellular degeneration of the cells with hyperchromatosis of the nuclei, and similar lesions of other organs, may be seen in the human body, *as in animals killed with the organism or its toxine.*" Heuse has established experimentally the fact that diphtheria bacilli are capable under certain circumstances of producing on the mucous membranes of animals a membrane histologically identical with that in man. Roger and Bayeux (58) injected diphtheria toxine into the trachea of guinea-pigs and rabbits without injuring the mucous membrane. Five guinea-pigs received 0.05 c.c. or less of toxine and died within forty-eight hours. In eight rabbits a pseudomembrane formed in the larynx with distinct croupous symptoms. In three the trachea and even the bronchi were covered with a pseudomembrane.

"The affection which is thus induced (by intratracheal injection) in the rabbit," say Roux and Yersin, "resembles croup in man. The difficulty which the animal experiences in breathing; the noise made by the air in passing through the obstructed trachea; the aspect of the trachea; the œdematous swelling of the tissues and glands of the neck, make the resemblance absolutely remarkable." Welch and Abbot in describing the results of inoculation in a cat mention that the appearance and course of the disease are absolutely *identical* with those in man, including the "tolerably firm, grayish-white, loosely attached pseudomembrane, *in all respects identical with the croupous membranes observed in the same situation in cases of human diphtheria.*"

To dodge the question by saying that "paralysis occurs in animals after inoculation with almost any infective agent" (not that often, unless by "paralysis" the doctor understands heart failure which occurs in *all* fatal cases) is to forget that paralysis in man may also occur in other diseases, besides diphtheria. It is not that paralysis may follow other diseases, but that it follows diphtheria, that is of importance.

One more point of minor importance. The doctor accuses me of confounding the toxine and antitoxine methods of treatment. I can assure him that I am well aware of the *theoretical* difference between the two, and by comparing them to links in a chain, I well know that various links may be made up of dissimilar material. The first insight into the virtues of antitoxic serum was received by Behring while working with anthrax, and it is the immunity acquired by the introduction of attenuated virus that led up to the antitoxine treatment. The nature of the two must be the same. By introducing attenuated toxines we produce antitoxines in the blood. In the antitoxine treatment we utilize those antitoxines already manufactured in one organism to immunize another, so that, after all, even antitoxine is, although indirectly, toxine treatment.

To sum up:

A specific organism must fulfill the following three postulates:

1. The organism must be constantly found in the infected area.

2. It must be obtained in pure culture.

3. The disease must be reproduced in susceptible animals by a pure culture of the organism or its products.

The Klebs-Löffler bacillus (1) is found in the affected area in every case "of bacillar diphtheritis," the latter making up from 75 to 95 per cent. of all cases of diphtheria. 2. It is obtained in pure culture. 3. The disease is invariably reproduced in susceptible animals, and with sufficient frequency in man, to make the ætiological relations evident.

A specific must fulfill the following postulates:

1. It must increase the percentage of cures to the maximum.

2. It must reduce the mortality below a point ever recorded and keep it at or near that point.

3. It must accomplish this without the admixture of other remedies.

Antitoxine (1) cures every case of experimental diphtheria where the amount of toxine is known. It cures from 75 to 90 per cent. of all cases of human diphtheria where the amount of toxine circulating in the blood is not known. 2. It reduced the mortality to 10-15 per cent., the lowest point ever recorded throughout extensive areas, and has kept it there since 1894. 3. It does the work without the addition of any other medication, although in man symptoms are usually combated with other drugs, just as they are in malaria and syphilis.

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THE SPECTACLE AND EYEGLASS HABIT.*

By ALFRED W. HERZOG, M. D.

Under the title The Spectacle and the Eyeglass Habit, by Norburne B. Jenkins, M. D., of Chicago, there appeared an article in the *New York Medical Journal* of July 28th which, not for the article itself, but for the place where it appeared, cannot be passed without a reply. The article itself could not be considered for a moment as worthy of a reply were it not for the fact that its being published in the *New York Medical Journal* gives it the prestige, the appearance of a scientific article. Specialists will not look at the article as anything else but a testimonium paupertatis given to himself by the writer; yet a great many practitioners who have not made a special study of the eye and the treatment of its diseases and malformations may accept the statements made in it as true.

It would be impossible to contradict and disprove every false statement made by Dr. Jenkins in a short reply to his article—the errors are too many and too fundamental.

One might say to Dr. Jenkins: *Si tacuisses, philosophus mansisses.*

Let me take up just a few statements made by Dr. Jenkins. The article begins with the statement that wearing spectacles or eyeglasses out of doors is always a disfigurement. If it is a disfigurement to wear glasses out of doors, why not indoors? In the second column, line 29, Dr. Jenkins says: "Glasses are very disfiguring to women and girls." How about men and boys? Is it not that the author notices the disfigurement more in women and girls because he is a man? Another statement is as follows: "It is surprising how few people have perfect eyes." True. Then he says: "All adult eyes, to be perfect, must be just exactly of a standard size and shape, as much so as minted dollars." How can a man say such a thing? I find also the following statement: "If a person's vision for distant objects is satisfactory to himself and seems good enough to keep him out of danger, there is no sense in wearing glasses on the street or in public." Did Dr. Jenkins never hear of headaches, nervousness, chorea, and numerous other diseases and symptoms caused by hypermetropia, astigmatism, and muscular insufficiency?

Again, Dr. Jenkins says: "The nearer perfect the fit of the glasses, the longer they can be left off at a time." In another passage he says: "Children's eyes are too small at first, but in time grow." Now, is it not possible that children's eyes are of just about the right size for children? Of course, the author is right when he says that in time they grow.

Dr. Jenkins says that if an eyeball is too small, too large, or not perfectly round, spectacles will have to be used as soon as the focusing mechanism—the ciliary muscle and the crystalline lens—fails to make the sight what it should be. Now, let me tell Dr. Jenkins that the focusing mechanism in a perfect eye—and even he admits that very few eyes are perfect—should be used only for near vision, that a perfect eye does not need the focusing mechanism at all for distant vision, and that, therefore, if this focusing mechanism in an imperfect eye is used not only for the purposes intended by Nature, that is to say, for near vision, but also for distant vision, eye-strain, asthenopia, results. This is avoided by discovering the error of refraction and correcting it by giving to the patient lenses to wear all the time. What we try to do is to correct the eye-strain, which is to Dr. Jenkins either terra incognita or something he has overlooked in writing his article.

Another of Dr. Jenkins's statements is: "If glasses are all right, they will seldom or never have to be worn in public." *Quousque tandem abutere, Catilina, patientia nostra?*

A statement on line 34 of the second column teaches us something new. It reads: "If the eyes are nearly perfect in size and shape, there will be no need for spectacles, even for reading, until about the fiftieth year." This teaches us that presbyopia, with all its annoyances, should remain uncorrected for about fifteen years. Dr. Jenkins must be either a myope or a very young man indeed.

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* A reply to a paper of the same title by Norburne B. Jenkins, M. D., of Chicago.

The author gives us an easy way to tell whether glasses are needed or to find out whether they are anything like right. Here I would call out with Cassius: "Must I endure all this?" And Dr. Jenkins might answer with Brutus: "All this? Aye, more." To use another slang phrase, and I must be excused for using slang as the only possible way of properly expressing myself at this moment, he keeps on "rubbing it in."

As for the easy test that Dr. Jenkins gives for finding out "just what is wrong," it is Dr. Jenkins that is wrong, and the general practitioner can easily find it out by trying the test.

It would take too much of the time of the readers of the *New York Medical Journal* to follow up every one of Dr. Jenkins's mistakes and misstatements—they are too frequent. His explanation of astigmatism is all wrong, and so is the statement that it is likely to give most trouble when the crystalline lens gets hard from age.

His statements as to errors of refraction and their correction are so confused and so manifestly wrong, and his defense of peddlers' ways of examining the eyes and twenty-five-cent pairs of glasses is so vigorous, that one is almost inclined to ask if he did not gather most of his notions about eyes and their examination from the trade.

There is one part of his article, however, which I must endorse. He says: "The medical profession, for the most part, has considered testing the eyes for glasses beneath its dignity; consequently this branch has always been largely in the hands of mediocres and quacks, and the people have been the victims. Restoring and preserving the sight with glasses is one of the greatest and broadest, as well as one of the most difficult, branches of medicine. The glass is one of the greatest powers in the science of medicine, for is it not like a splint to a broken leg, like a bed for a tired back, like opium for pain, like an artificial limb to the maimed or a crutch to the crippled? It acts like both sleep and exercise. It is a return of youth to aged eyes. It is often perfection and success in life, instead of imperfection and failure. It may mean all that blindness or sight, all that the eye itself means. It is an open sesame to the mind, one which is too often never spoken. The fate of many, whether in youth to become a success or a dullard or in age a philosopher or a dotard, depends simply upon a pair of good glasses. If science and wisdom could do as much for the other fading powers of life as spectacles can for the eyes, there might be many frisky centenarians. Spectacles are often the means of a ripened wisdom and should be its badge and symbol."

And all this he would destroy by spreading ignorance, by talking in the voice of a teacher concerning things he does not understand.

"A little knowledge is a dangerous thing."

Dangerous indeed might it be if Dr. Jenkins's article were permitted to remain unanswered, unchallenged. Dangerous indeed would it be if as many people as have read the article believed its statements to be true.

The author's accusation against great oculists, that they operate out of vanity of dramatic display, is unwarranted and unmerited.

143 EAST THIRTIETH STREET.

THE RELATION OF SEMINAL VESICULITIS TO IMPOTENCE.*

By RAMON GUITERAS, M. D.

IMPOTENCE is the inability to perform the sexual act satisfactorily, either through lack of erection or other causes. There are three varieties, organic, psychical, and atonic. Atonic impotence is by far the most frequent, and is the one which I shall consider in this paper. In this condition the lack of power may be partial or complete, and is due to a weakened condition of the lumbar centres. When these centres are normal and the genitals healthy, erection should be complete and the individual should be able to copulate for from three to five minutes before an ejaculation, after which the erection should remain for a while. In atonic cases, however, ejaculations either are premature or lack force, and the erection may be weak or entirely wanting.

We may divide atonic impotence into two classes, adynamic and irritative. The first form may follow some injury or disease of the spinal cord or the brain or some weakening disease like anæmia, cholæmia, diabetes, gout, rheumatism, diphtheria, or consumption, and it may be the result of excess in alcohol or tobacco, bromides, cocaine, or other drugs. In this variety the erection is imperfect and the ejaculation is of a feeble, flabby, dripping character, accompanied by little sensation.

The irritative form is generally said to be due to a congestion or inflammation of the deep urethra or its annexa, which keeps the lumbar centres in a constant state of excitability, and renders sensation so excessively acute that ejaculation takes place at the moment of intromission or even before.

Posterior urethritis, stricture, excessive venery, prolonged sexual excitement, strongly acid urine, prostatitis, and various other conditions are noted as common causes of this trouble. Masturbation is also given as a cause by the patient, but is rarely indulged in sufficiently to produce such a condition. Men who are constantly in close contact with women without being able to gratify their sexual desires are also brought into a state of constant irritation, which is followed by exhaustion and a consequent weakening of the parts. In these cases merely hugging or kissing a woman or even friction, jolting, or the weight of the clothes in bed is sufficient to cause an emission.

In many cases atonic impotence is associated with neurasthenia, but not necessarily, as a patient may be remarkably neurasthenic and yet vigorous in coitus.

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*Read before the Section in Genito-urinary Surgery of the New York Academy of Medicine, April 11, 1900.

There is no doubt that disease of the prostate and a hyperæsthetic condition of the prostatic urethra, whether inflammatory or not, may give rise to this condition, but careful examination of a large number of these cases at the clinic and in private practice has shown me that in nearly every case the patient was suffering from an inflammation of the seminal vesicles. This has led me to believe that disturbances in the function of the vesicles is a more potent cause of atonic impotence than prostatitis or posterior urethritis. The fact that vesiculitis is usually secondary to a pathological condition of the prostate or prostatic urethra in no way militates against this view.

The varieties of prostatic trouble which may give rise to seminal vesiculitis are acute prostatitis, in which the ejaculatory ducts are pressed upon by an exudate in the gland; prostatic abscess, during the healing of which the ducts may be caught and pinched in the scar tissue, and any growth or enlargement of the gland in so far as it presses upon them. Pressure from any of these causes interferes with the function of the vesicles, and causes inflammation of them, in much the same way that an obstruction of the urethra gives rise to cystitis.

In examining cases with symptoms of atonic impotence we find, as a general thing, that the history presents two stages, that of excitation and that of depression, and almost all these patients, if their past is carefully considered, will confess to a period of over-excitement. This over-excitement may have been caused by excessive intercourse, unnatural practices, withdrawal, or holding back, or the remains of some urethral disease. At any rate, the patients have at some time previous to the period of depression had frequent and sometimes troublesome erections which were awakened on the slightest impulse, but these symptoms of irritation and excitation have gradually disappeared and those of depression have followed, when the erections have been less frequent, and when the disease has in a great measure abated.

This class of patients may be divided into several subclasses, those who complain of faulty erections with quick ejaculations, and perhaps a long delay before another erection can be aroused; of a force insufficient to enable them to enter; of failure to accomplish the act, because the erection subsides before the orgasm is consummated; or of a total absence of erections for a period of some months or perhaps years. In most of these cases, on rectal examinations, the minute the tip of the finger is placed on the vesicles the patient winces and complains of pain or marked sensitiveness. The condition of the vesicles, as noticed on rectal touch, varies. They may be dilated and in a condition which might be termed spermatic retention, due to an atonic condition of the walls, associated with pressure upon or stenosis of the ducts. As a general thing this condition will yield to massage, and a large amount of detritus and inflammatory products may be squeezed out and passed off in the urine. At other times they are dilated, but have a pasty feel, the finger sinking into them as it would into soft putty. Again, there is marked inflammation of the vesicles, which are thickened and generally irregular; or the condition may be an atrophic one in which the vesicles perhaps cannot be outlined, but pressure upon them shows them to be exceedingly sensitive.

These patients have been treated by practitioners in various ways. Some have had the cold sound plunged into the urethra, a procedure which will excite any posterior urethritis which may be associated with vesiculitis, or they have been treated by the urethral psychrophore or by deep injections. Many of them have been treated internally with strychnine, damiana, cantharides, and phosphorus or other irritating stimulants, which increase the irritability of the parts, but do not strengthen them, whipping the tired horse instead of giving him a rest.

The method that I pursue in the treatment of these cases, and which has been most satisfactory, is to direct the patient to abstain from anything which would tend to cause irritation, or stimulation of his sexual apparatus, relieving the condition by palliative methods, and, after the irritation or inflammation has been removed, stimulating them by means of drugs, electricity and regulation of hygiene.

The method of treatment may be outlined as follows: Internal remedies to neutralize the urine in cases of overacidity; rectal irrigation every night, with normal salt solution or strained flaxseed tea at a temperature of 105° to 120° F., by means of the double-current rectogenital tube, and massage of the internal genitals every five days, followed immediately by a urethral irrigation whenever there is chronic prostatitis or posterior urethritis associated with this condition.

The patient will at first scarcely be able to tolerate the gentlest manipulation of the vesicle by the finger, but after several *séances* not only will he be able to endure the massage, but he will feel much benefited and relieved by it. After the symptoms of inflammation and irritation have been relieved, tonics, such as strychnine and iron, can be used, or even damiana and phosphorus. Electricity may also be employed by means of the rectal electrode, using the galvanic or the faradaic current or, better still, the galvanic followed by the faradaic. I will cite a few cases from my histories to show some conditions which I relieved during the last year.

Case I.—A clerk, thirty years of age, had not had an erection for four years. Before that time he was vigorous, but had been gradually losing power. Examination revealed a few shreds in his urine, coming from some part of the urethral canal. Evidently there was not much posterior urethritis, as there was no increased frequency of urination. By rectal examination the vesicles on both sides were found to be very tender, dilated, and slightly indurated. No pathological condition of the prostate could be detected. The patient was put on the use of hot rectal irrigations of salt solution every night. The vesicles were massaged every five days by one of my associates, and in five months there was no induration or dilatation, and there was no tenderness. The patient had erections, married, and was able to copulate twice in a night. His sexual hygiene was regulated, and he found himself able to perform all his marital duties.

CASE II.—A physician, thirty-two years of age, came in great distress, complaining of impotence. On one occasion, two months before, he had had an unsatisfactory intercourse with his wife, when the ejaculation seemed to consist of but a slight moisture. He had felt no further desire to have intercourse, but about a week ago had attempted it again, to satisfy his curiosity, and found that the erection was deficient. Two or three days ago he tried again, but without success. Examination showed that the seminal vesicles were very much dilated and tender to the touch. Massage brought away no detritus. He was put on the use of hot rectal irrigations of salt solution, and was instructed to call again in five days. At the end of this time the vesicles were not so tender, and massage resulted in forcing out some products of inflammation from the vesicles, as was shown by the cloudiness of the urine. Five days later he called again, and then more detritus was expressed from the vesicles, and their tenderness was still less marked. The inflammation about them and their ducts was evidently subsiding. He was then instructed to come every five days. After a short time I was able to empty the vesicles at each sitting, and it was then noticed at each succeeding visit that the vesicles were smaller, and the tenderness was still further diminished. At the end of two months the vesicles were scarcely to be detected, and there was no pain on pressure over them. Strychnine was then given, in Basham's mixture, for a few weeks, and the patient reported that he had never felt better, that he felt stronger in his genitals than he had for some time previous to the development of the condition for which he placed himself under treatment.

CASE III.—A student, nineteen years of age, presented himself complaining of loss of power. He had never had intercourse. He had indulged somewhat in the so-called errors of youth, had had frequent emissions, and at the time he called stated that he had not had an erection for four months. He was decidedly neurasthenic. He felt that not only was he losing power locally, but his general system was also affected, and his memory was failing. He said that he could not apply himself, that he was nervous and weak, and felt that he was on the verge of a decline. Examination of his external genitals and urethral canal showed them to be normal. The prostate was of firm consistence, and while the vesicles were not much enlarged, he complained very much of tenderness on pressure over them.

He was put on the use of hot rectal irrigations of a normal salt solution every night, by means of the recto-genital tube, and his vesicles were massaged every five days. At the end of two months he reported that he had an erection every morning and sometimes during the day. So much having been done, no more could be achieved for him. He was not directed to put his genital apparatus to the test, as he had never had intercourse, and was not contemplating marriage. I always consider it unwise to advise copulation with public women.

CASE IV.—A traveling salesman, aged twenty-six, had had several attacks of urethritis, some of them chronic. He had no frequency of urination or signs of active posterior urethritis at the time of his visit, but stated that he had a morning drop, and there were some shreds in the urine. He complained principally of loss of desire and imperfect erections. Coitus was unsatisfactory, resulting in premature ejaculations. The vesicles were found to be inflamed and thickened, a condition due evidently to an extension of the former urethral infection. He was put upon the use of hot rectal douches of salt solution every night, and massage of the vesicles and prostate every five days, followed each time by a urethral irrigation. Under this treatment the inflammation gradually left the vesicles and the morning discharge ceased. He said after two months of treatment that he felt well, although the fear of again bringing on a urethritis had prevented him from trying himself sexually. I saw him a year after his treatment, and he told me that he was able to copulate three times in an afternoon or evening (a period of between two and three hours).

CASE V.—A physician, thirty-five years of age, had never had any venereal trouble. For two years he had noticed a glairy discharge from the urethra when he was with women. He stated that he did not have good erections, and that his ejaculations were premature. He had nervous twitchings about the face and eyes. His appetite and digestion were normal, and his general health was good. He regarded the impairment of his sexual function as due to too frequent intercourse in the past, when at times he had indulged four or five times in a night. He was in the habit of urinating every two or three hours during the day. The external genitals were normal. The seminal vesicles were tender, especially the right one, but not clearly outlined. The prostate had long cornua. The urine contained a few shreds from the prostate. The urethra was normal. He was put on the use of hot rectal douches and massage of the internal genitals. After having been treated by me for three weeks, he returned to his home in another city and continued the douches for two months longer, when he wrote me that he considered himself cured.

CASE VI.—A bartender, gave a history of subacute urethritis two years ago, becoming acute on his taking up the bicycle a year later. He complained at the time of his visit that his meatus was stuck together in the morning. He was able to have an erection, but lost it immediately upon ejaculation, which occurred after five seconds of copulation, and he could not have another erection on that day. His urethra was normal. His urine was clear and contained no shreds. He had a varicocele on the left side. Rectal examination revealed double seminal vesiculitis, worse on the right side, and a prostate with a soft, mushy feel.

He was put on the regular treatment of hot rectal irrigations, and massage every five days, accompanied by urethral irrigations of a solution of silver nitrate. The inflammation subsided in about two months, and he was then given a tonic pill of nux vomica, damiana, iron, and ergotine, and at the end of three months from the date of beginning treatment considered himself cured.

CASE VII.—A business man, thirty-six years of age, of compact build, had had two attacks of urethritis, one twelve years ago, and one eight years ago, each lasting for a few weeks, with no complications. At the time of his visit he said that he felt nervous, and complained of deficient erections and almost instantaneous emissions. He had a little burning sensation in his urethra occasionally, and urinated five times a day. Examination revealed nothing abnormal about the external genitals except a slight varicocele on the left side. The prostate was large, and the seminal vesicles were indurated and tender.

This patient had his prostate and vesicles massaged and his urethra irrigated for two periods of three months each, with an interval of about four months between. He called about once a week for his massage, and at the end of two months the inflammation had entirely left his vesicles, and his prostate had become much smaller and softer. He then began to go with women systematically, to try his condition, and was very much pleased to find that the duration of the act was increasing, as well as the frequency with which he could indulge in it. The pleasurable sensations also seemed to be increased. He was put upon tonic treatment with damiana, phosphorus and strychnine during the two periods of his treatment. He has married and has had no difficulty in performing his family duties. This was an interesting case, as the patient put himself under treatment and went about the cure in a systematic manner.

In conclusion, let me say that, while admitting other predisposing causes of atonic impotence, such as chronic inflammation of the posterior urethra, chronic prostatitis, varicocele, etc., I think that in the majority of cases seminal vesiculitis is by far the most marked pathological condition present.

63 West Fifty-fourth Street.

OBSTETRICAL "DON'T FAILS."

By CHARLES I. PAGE, M. D.,
LITCHFIELD, CONN.

Don't fail, when engaged to attend a confinement, to ascertain the character and number of previous labors, abortions, etc. Don't fail to remark that you cannot predict with certainty when delivery will take place. Don't fail to impress upon the patient the difficulty of preventing and curing the vomiting of pregnancy. Don't fail to examine the patient's heart. Don't fail to examine the urine at regular intervals. Don't fail to examine the generative organs. Don't fail to refuse to "help your patients out of trouble." Don't fail to respond at once when a pregnant woman sends word that she is flowing. Don't fail to determine the presentation by the seventh month. Don't fail to give instructions in the hygiene of pregnancy. Don't fail to inspect the lying-in room and the articles needed during parturition. Don't fail to carry out asepticism; you may save yourself a guilty conscience and perhaps a patient. Don't fail to learn the condition of the bowels; it sometimes saves time and disagreeable features during the second stage. Don't fail to forbid the patient to use the water-closet during labor; puerperal fever is occasionally caused in this way. Don't fail to carry a perfectly equipped obstetrical bag. Don't fail to have boiling water at hand. Don't fail to see that the patient has a new fountain syringe; the family heirloom is dangerous. Don't fail to *forget* to use the syringe after a normal labor; it is not indicated. Don't fail to have the examining hand aseptic; septic germs are busy beings. Don't fail to avoid *too* frequent examinations. Don't fail to make use of bisulphate of quinine in uterine inertia. Don't fail to remember the indications for using the catheter. Don't fail to remember that there is usually a decided interval between the ending of the second and the beginning of the third stage of labor. Don't fail to employ Credé's method with a retained placenta. Don't fail to examine the placenta. Don't fail to examine the perinæum. Don't fail to remain with the patient one hour after delivery. Don't fail to administer ergot. Don't fail to leave written instructions with the nurse. . Don't fail to examine mother and child before leaving. Don't fail to return within six hours.

THE DIAGNOSTIC AND THERAPEUTIC VALUE OF INSUFFLATION OF THE ŒSOPHAGUS, STOMACH, AND COLON.*

By C. D. SPIVAK, M. D.,
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By the term "insufflation" we understand the filling of any cavity of the body with air, gas, or vapor for diagnostic or therapeutic purposes. One would expect that insufflation should have been applied first to either the œsophagus or colon, being as they are the two most accessible portions of the alimentary tract. Yet this is not the case. The anatomical situation of an organ has evidently little influence upon the march of its diagnostic or therapeutic progress. It was the stomach that received the first blast of wind, and therefore we shall accord this organ the place of honor in our consideration of the subject.

Insufflation of the Stomach. *Methods.*—Insufflation of the stomach, or, as it is otherwise known, ballooning of the stomach, was used for the last three decades as an aid in diagnosis in diseases of the intra-abdominal viscera in general and the stomach in particular. Frerich (1) and Fenwick (2) independently of one another introduced the method of insufflating the stomach with carbonic-acid gas.

They gave their patients, on an empty stomach, a glass of Seltzer or an effervescent powder. Wagner (3) has evolved the method now in vogue—namely, to give the patient a solution of bicarbonate of sodium, followed by a solution of tartaric acid. The dose as originally recommended by Wagner was "as much as will go on the edge of a knife." Riegel (4), Ziemssen (5), and Ebstein (6) increased the dose of each ingredient to one teaspoonful. Runeberg (7) substituted atmospheric air for carbonic-acid gas. The air is pumped into the stomach from a double-bulb spray apparatus attached to the stomach tube. Bouveret (8) and Fürbringer (9) substituted the lungs for the spray apparatus. The expired air of the lungs is blown by the mouth into the stomach through a tube. I have devised a method (10) by which the patient himself is enabled to insufflate his own stomach.

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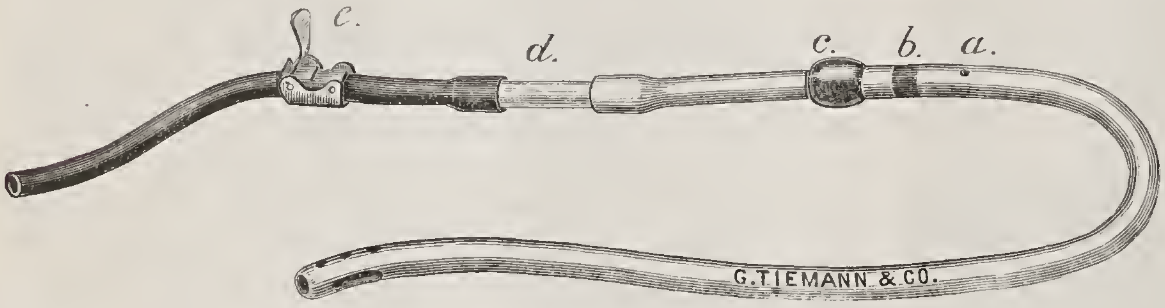
* Read at the thirtieth annual convention of the Colorado State Medical Society, held at Denver, June 19–21, 1900.

My method is based upon the following physiologic fact: When the stomach tube is in place, it in no way interferes with respiration or vocalization. The patient is able to take a deep breath, sing a tune, blow a horn, and inflate a bag. Why should not the patient blow up his own stomach? The simplest procedure which presented itself to my mind was to bend the free end of the tube, introduce it into the mouth of the patient, and order the patient to blow away. The patient upon whom I tried this method happened to have been blessed with a wide oral orifice guarded by thick lips, so that he managed to hold in his mouth the doubled-up tube and blow his stomach up full without the air escaping between the lips and tube. This method, however, proved a complete failure in my next patient, who chanced to be a lady with a mouth similar to one described in Solomon's Song of Songs, but with lips which refused to hug and compress the tube. The good lady blew a good deal of breeze into my face, but not into her stomach. In order to afford an equal chance to the one with superfluity of lip as to the one who is blessed with but a moiety of this article, I devised the following: I bore a side opening in the tube at such a distance from the proximal end that when the tube is introduced into the stomach the opening should be situated in the anterior portion of the buccal cavity. I then clamp the free end of the tube, and ask my patient to shut his lips and teeth and blow up his cheeks. The air in the mouth, having no other exit, finds its way through the side opening into the stomach. The patient is told, as a matter of course, to breathe through the nose between the acts of blowing up the cheeks, and to keep the mouth shut until the end of the examination; otherwise the air will escape from the stomach through the side opening. During the act of blowing up one's cheeks the tongue is retracted, the cheeks expand, and space is thus created for filling up with a quantity of air. On the contrary, during the period of breathing through the nose, the mouth being shut and the cheeks pressed to the teeth, the anterior portion of the buccal cavity represents an almost air-tight cavity, and therefore the air in the stomach can not escape through the opening into the mouth.



Gastric Auto-insufflation Tube.—*a*, Side opening; *b*, teeth mark; *c*, sliding ring; *d*, glass tube; *e*, clamp. In order that the tube used for auto-insufflation may not lose its usefulness as a stomach tube in general on account of the side opening, the tube is provided with a sliding ring, as represented in the accompanying cut, which may be slipped over the side opening when the tube is not used for insufflation.

Diagnostic Value of Insufflation of the Stomach.—No matter what method is used, as soon as a sufficient quantity of carbonic-acid gas or air is introduced into the stomach, the patient being in a horizontal position and on his back, the organ becomes distended, so that it stands out prominently upon the abdominal wall, and is evident as a sharply defined, arched elevation. The greater curvature is always well defined by inspection. We have to note the rapidity with which the stomach fills up, the amount of air used, the size, shape, and position of the distended viscus, and the displacement, appearance, or disappearance of tumors.

The Capacity of the Stomach.—The capacity of the stomach can be measured by the quantity of air which it can hold without causing any discomfort to the patient. Jaworski (11), Kelling (12), Ost (13), and Hemmeter (14) have each devised a method for measuring the quantity of air either before it is introduced into the stomach or after it is expelled from it. Their methods are ingenious, but, notwithstanding their complicated construction, none give precise results. For clinical purposes we can measure the air introduced more or less accurately by using a pump whose cylinder has a known capacity. I use a bicycle hand pump, which holds about fifty cubic centimetres of air. A normal stomach will tolerate from fifteen hundred to two thousand cubic centimetres.

Size of the Stomach.—The degree to which the stomach can be distended without causing any painful sensations is very limited. If, therefore, the distended viscus is found by inspection, percussion, and palpation to occupy an area larger than its anatomical relations warrant, it is tolerably certain that the stomach is dilated. And, conversely, if the area occupied is too small, the stomach is diminished in size (contracted stomach) or it is dislocated.

Location of the Stomach.—The stomach may be displaced upward, downward, or laterally. The upward displacement is usually to be found in cases where the intestines or colon or both are filled with gas and, therefore, insufflation of the stomach is impossible. The downward displacement of the stomach *in toto* must be distinguished from dilatation. The former is diagnosticated when on insufflation the lesser curvature is located somewhere below the ensiform process. The rare condition of vertical displacement of the stomach can be recognized by the fact that there is no bulging in the epigastric region after the organ is inflated. On percussion, the upper limit of the fundus of the stomach will be found in its normal position. "The line of the greater curvature runs to the left, emerges from under the ribs near the cartilage of the tenth rib or a little higher, and ends at the pylorus. The lesser curvature is displaced downward and to the left, and is located by inspection, palpation, and percussion along the border of the left lobe of the liver. In the median line of the epigastrium only the left lobe of the liver and pancreas are interposed between the anterior abdominal wall and the spinal column. The aorta can here be easily felt and its pulsation is often visible" (15).

Patency of the Gastric Orifices.—As soon as air or gas is introduced into the stomach the pyloric orifice becomes contracted. In the conditions known as insufficiency or incontinence of the pylorus, the stomach will either become distended very slowly or not at all. Since the pyloric orifice, when the stomach is empty, is in a relaxed state, and therefore a portion of the air may escape into the intestines, without the presence of insufficiency, it is advisable that the distention of the stomach should be made after a test breakfast.

In insufficiency of the cardiac orifice I should be inclined to think that the stomach will not fill up readily, as the air will escape between the tube and the œsophagus.

Shape of the Stomach.—If the distended stomach shows on inspection, percussion, and palpation two distinct sacs, with an intermediate constriction, it is diagnostic of the rare condition of bilocular or hour-glass stomach.

Tumors.—Minkowski (16) has elaborated the following rule: In all cases of intra-abdominal tumors, when the stomach is insufflated the tumor will be displaced in the direction of the organ to which it belongs. Tumors of the liver are displaced upward and to the right; tumors of the spleen are displaced downward and to the left. Tumors of the colon and kidney are displaced downward. Tumors of the mesentery are displaced upward. Tumors of the pylorus are displaced downward and to the right. Tumors of the lesser curvature will be turned back and then disappear. Tumors of the pylorus may be revealed on insufflation. Tumors of the anterior wall of the stomach become on insufflation less distinct, the margins less sharply defined, and they seem to diminish in size. Tumors of the posterior wall get out of reach.

Adhesions.—Adhesions can be made out on the same general principles referred to in the previous paragraphs.

Insufflation of the Colon. *Methods.* — Von Ziemssen (17) was the first to recommend inflation of the colon for diagnostic purposes. He injected into the rectum the acid and alkali solutions mentioned above. Later he modified his original method by introducing the solutions through a rectal tube to which a funnel was attached. Schnetter (18) attaches a rectal tube to an inverted siphon containing soda water. When the valve is pressed the carbonic-acid gas runs into the bowel without any admixture of water. Rosenbach (19) makes use of liquefied carbon dioxide from a sparklet. Dieffenbach uses weiss bier. Runeberg (7) recommends inflation with air by means of pump or spray apparatus. Fürbringer insufflates the colon by using his own lungs. At the VIII. Congress für innere Medizin, where the subject of insufflation of the colon was discussed, Fürbringer (20) stated that he inflated with his mouth, whereupon Mankopf arose and said: "That is a matter of taste (*Das ist Geschmackssache!*)." Damsch (21) has estimated that one litre of air is sufficient for inflation of the colon throughout its length. The amount, however, that the colon can hold is about sixteen litres.

When the bowel is inflated with air or gas the colon becomes distended, and the ascending, transverse, and descending portions may be mapped out by percussion and palpation, and in thin persons become visible.

Diagnostic Value of Insufflation of the Colon. *Location of the Colon.*—Normally the transverse colon is situated at or a little above the navel. When on insufflation the transverse colon is found below the navel, the diagnosis points to displacement or enteroptosis.

Stenosis of the Colon.—Stricture of the colon may be recognized when on inflation only the portion of the colon below the stenosis becomes distended. The air will escape outside between the rectum and the tube. The tympany below the stenosis is deeper or more sonorous.

The patient may complain of pain after a sufficient quantity of air has been introduced, or, if the pain has existed before, it is now more severe. Occasionally one can hear at the constricted point a peculiar prolonged sound due to the stream of air forcing its way through the stenosis.

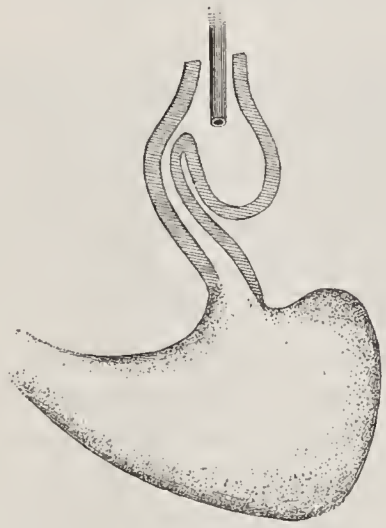
Dilatation of the Colon.—Insufflation will reveal this condition, if the dilated portion is not within the pelvic cavity, by the methods above referred to.

Tumors.—Minkowski's rule, laid down in insufflation of the stomach, holds good in the recognition of tumors when the bowel is insufflated—namely, that when the colon is insufflated, the tumor will be shifted in the direction of the organ to which it belongs. Tumors of the stomach and liver are displaced upward; tumors of the gall bladder are displaced forward; tumors of the spleen are displaced upward and to the left; tumors of the kidneys are displaced upward and then disappear, and tumors of the mesentery are displaced upward.

Gastro-colic Fistula.—Gastro-colic fistula (22) may be recognized by the fact that when the colon is inflated the air will eventually distend also the stomach.

Perforation of the Bowel.—Sutton (23) suggested the insufflation of ether into the bowel for the purpose of recognizing intestinal perforation. To a bottle filled with ether and provided with a perforated rubber cork are attached two rubber tubes. One of the tubes is attached to a bicycle pump and the other to a rectal tube. The air pumped into the bottle becomes impregnated with ether. If there is a perforation in the bowel, the ether will escape into the abdominal cavity and fill it. If there is no perforation, the ether will traverse the whole length of the intestinal tract, enter the stomach, and eventually be eructated, which can be recognized by the characteristic odor.

INSUFFLATION OF THE ŒSOPHAGUS.—In order to insufflate the stomach it is not necessary to introduce the tube directly into the stomach. It is sufficient to introduce the tube into the œsophagus, two or three inches below the cricoid cartilage, and the pumped-in air will find its way into the stomach. Hence, if there is an obstruction in the œsophagus, due to a foreign body, growth, or stricture, the insufflated air will either not go into the stomach at all or will pass in slowly. This procedure will indicate, therefore, the degree of the obstruction. Spasm of the œsophagus can more readily be diagnosticated by insufflation than by the introduction of bougies. The passage of a bougie acts as an irritant, and increases, as a rule, the spasmodic contraction of the œsophagus, which is not the case when air is introduced. A diverticulum in the upper third of the œsophagus, which is the usual seat, can be recognized externally by inspection, for it will fill up with air and there will be present a tumor in the cervical region. Furthermore, by insufflation we may be enabled to make a differential diagnosis between diverticulum and dilatation of the œsophagus. In the latter the air will pass freely into the stomach, whereas in diverticulum the pouch will fill up with air, and thus obstruct the lumen of the œsophagus. In a case under observation the air invariably forces the tube out of the œsophagus.



Diverticulum of œsophagus filled with air, and compressing the portion of the œsophagus immediately below it.

The subject of insufflation of the œsophagus has only recently occupied my attention. I have not yet had the opportunity of verifying all my theoretical reasonings upon an extensive clinical material. The few cases, however, in which I applied insufflation of the œsophagus as a means of diagnosis convinced me that there is a great deal yet to be learned from this method, and I hope to be able to report at a future date more definite conclusions based upon clinical observations.

THERAPEUTIC VALUE OF INSUFFLATION OF THE INTESTINES, STOMACH, AND ŒSOPHAGUS.—So far insufflation of the colon has been recommended in obstruction of the bowel, especially in invagination and volvulus. Trastour (24) uses air, von Ziemssen (17) uses carbonic-acid gas, and Senn (25) suggested hydrogen gas. The writer has noticed improvement in several cases of chronic atony of the bowels after daily insufflation of the colon. I am at present experimenting with insufflation of hot air into the stomach in various gastric disorders, but do not care to report premature conclusions. I would suggest that insufflation should be tried as a means of pushing down a foreign body lodged in the œsophagus. It is certainly less dangerous than the forcible use of an œsophageal bougie. I shall also use insufflation in my next case of œsophagismus.

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Therapeutical Notes.

The Treatment of Balanitis.—F. Toledo (*Riforma Medica; Revista de medecina y cirurgia prácticas,* June 28th) recommends bathing the gland thoroughly in the following solution:

℞	Chlorate of potassium	60 grains;
	Distilled water	210 "

M.

After cleansing with this lotion, apply a dusting powder of equal parts of tannin of starch.

The Treatment of Muco-membranous Colitis of Children.—The *Journal des Practiciens* for June 9th says that in chronic colitis of children with habitual constipation, shedding of the mucous membrane, a form of colitis which commonly succeeds the acute forms, the treatment is the same as for adults: Intestinal lavage, oily injections (2,250 grains), castor oil in small or large doses (from 150 to 300 grains daily), and calomel occasionally. Henoch prescribes:

℞	Hydrochloric acid	7½ grains;
	Distilled water	1,500 "
	Gum arabic	15 "
	Syrup of althæa	300 "
	Thebaic tincture	from 2 to 4 drops.

M.

A coffee or dessert spoonful three or four times daily.

Creosote Wine.—The *Canadian Practitioner and Review* for July cites from *Nouveaux Remèdes* for February 8th the following prescription for a creosote wine:

Creosote	½ ounce;
Tincture of gentian	1 ounce;
Alcohol	8 ounces;
Sherry wine	enough to make a quart.

Two or three dessertspoonfuls of this mixture may be given daily in cases of pulmonary tuberculosis, provided that the temperature is not very distinctly febrile.

Pilules of Terpinol.—The *Journal des Practiciens* for April 28th ascribes the following to Tanret:

℞	Terpinol	1½ grains;
	Benzoate of sodium	1½ "
	Sugar	sufficient for one pilule.

M.

From one to ten may be taken daily.

The Treatment of Urinary Lithiasis.—The *Gazette de Gynécologie* for June 15th gives the following: Drink every morning a bottle of mineral water (Evian or Vittel water specified), to which has been added 7½ grains of benzoate of lithium. At each meal a wafer of 7½ grains of salol and a dessertspoonful of the following draught:

℞	Saturated chloroform water	2,250 drops;
	Eau de tillent	1,500 "
	Syrup of orange flowers	750 "

M.

Vioform, a New Substitute for Iodoform.—Tavel (*Deutsche Zeitschrift für chirurgie,* lv; *Centralblatt für chirurgie,* July 28th) considers "vioform" (iodchloroxyquinoline) as the best substitute for iodoform, and in non-tuberculous cases he thinks it is superior to that drug. The powder is odorless and forms a convenient paste with liquids.

An Ointment for Pemphigus in Infants.—The *Riforma medica* for July 18th gives the following formula:

℞	Zinc oxide, Salicylic acid,	each	1 part;
	Lanolin		40 parts.

M.

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THE MEDICAL ASPECT OF THE CHINESE CAMPAIGN.

The Chinese situation is one which will tax to the full, far more than any recent war, the resources and expansiveness of the medical service of the respective forces engaged. Those sentimentalists who have been crying out over the horrors of war, as depicted in the inevitable suffering that must follow, and the hardships that must be endured by the armies of civilized powers, as we Westerners understand civilization, will possibly learn by comparison how much we have to be thankful for in modern civilized warfare when they glean from the happenings in China what the state of medical aid was among even European nations in times not very far removed.

In the Spanish-American, in the South African wars, humanity to the wounded on either side has been a matter of course in accordance with the accepted principles of modern warfare. If retreat was unavoidable, the wounded might safely be left to fall into the hands of the enemy, for it was full well known that, once placed by their condition out of the position of active foes, they would meet with the same kindly care and attention as if they were in the hands of their own comrades. Great Britain, perhaps, with its constant and everlasting experience of warfare on a small scale with uncivilized tribes, has, or ought to have, a greater knowledge than other nations of what measures will be necessary to ensure protection, as well as adequate care and attention, to those who may be wounded or otherwise placed *hors de combat* in the present campaign in China. Complaints of inhumanity in firing on the Red Cross, etc., have been freely bandied about by both sides in the Spanish-American and in the South African wars, but, save for a few isolated instances in which the offenders were absolutely defying the spirit and intentions of their own side with that impunity which the confusion of things obtaining in war renders almost unavoidable, it is safe to declare that on both sides the transgressions were inadvertent and due to misapprehension, not to malignity. But in China all that is different. There the Red Cross commands no respect whatever. Even Turkey will treat the Red Cross with the same respect which it demands for the Red Crescent. But in China cruelty and atrocity may be looked for as the regular thing in regard to such as may chance to find themselves in the enemy's hands. Even the hospitals will be no longer "non-combatant" there, but must be turned into armed camps ready to defend themselves, even to the extent of that best of defences, under many circumstances, counter-attack. The recent passages of arms, moreover, are beginning to rouse the world to the idea which only few seem hitherto to have entertained, viz., that progress in both measures and implements of destructiveness has not been confined to one or two nations. With modern methods and modern weapons, the world is waking up to what a few "cranks" have been eliciting contemptuous scorn for stating, viz., that the invincible nations are invincible no longer, and that even foes of the "old-fogy" type may be perilously "up to date" when it comes to blows. We underrated the resistance in the Philippines; Fate certainly favored us in the Spanish war, or it might have been found that we had had underrated our enemy there; the British undoubtedly underestimated their South African foes; and all the nations, except, perhaps, the Japanese, who have had some practical experience with them, appear even yet to be underestimating the military resources of the Chinese.

As to the question of disease, which in warfare has from old times been said to be more fatal than the enemy's weapons, the same mistake has occurred all round. The experience of the French in Madagascar did not teach us wisdom, neither did our experience, coupled with that of France, make the British foreseeing enough to provide against the appalling affliction from disease in South Africa. That France, at least, has learned something from her Madagascar experience is shown by the very admirable circular, reproduced in another column, which has been issued by her Minister of Marine. The French have had some experience in Chinese campaigning also in the Tonking, so that their official advice to their own troops is worthy of weighty consideration.

THE MOSQUITO IN THE ÆTIOLOGY OF MALARIAL DISEASE.

So much of what has been published of late concerning the part played by the mosquito in spreading malarial infection is founded on insufficient or even fanciful data that it is reassuring to meet with such a well-digested presentment of our present knowledge of the subject as was made by Dr. William Sydney Thayer, of Baltimore, before the Philadelphia County Medical Society early in May and published in the June number of the society's *Proceedings.*

Dr. Thayer thinks it may be considered as proved that mosquitoes of the genus *Anopheles* are capable of transmitting the malarial organism from person to person, and he discusses the question of whether it is through the agency of the mosquito only that the infection is acquired by man. It is the only proved agency, he declares, and, reasoning from what we know of other infectious diseases, he says, it is rather unlikely that there is more than one method of infection, and the exclusive mosquito theory explains most of the conditions associated with malarial infection; reports showing the protective efficacy of mosquito nets, even in the most malarious districts, are rapidly accumulating, and there is no serious evidence in favor of any other theory of malarial infection.

The evidence now in our possession, Dr. Thayer thinks, favors the view that the removal of all malarial persons from a given region would put an end to every source of infection. He intimates that man is a necessary intermediate host of the malarial organism, difficult as it may be at first to believe such a proposition, and he asks if we have any positive proof that uninhabited tropical regions containing mosquitoes of the genus *Anopheles* are dangerous to persons who are free from the infection on their arrival. The author refers to statements that in tropical Africa, for example, exploring parties may spend considerable periods of time in the uninhabited interior without illness, even though the region may appear most unwholesome, but that outbreaks of malarial disease occur among them when they return to the seacoast. This hitherto inexplicable fact becomes clear, he says, if we assume that in the interior, though all the conditions are present for a spread of the disease, the mosquitoes are not infected and consequently are harmless.

There is reason to believe, Dr. Thayer thinks, that if in any given region proper measures were adopted for treating the early relapses of malarial disease, and efficient means were employed for destroying dangerous mosquitoes in their larval stage, the prevalence of malarial disease might be materially controlled. An infected patient in a malarious district, he says, is a source of danger to those about him, and the importance to the community of insisting upon the proper treatment of all cases of such disease cannot be too strongly emphasized. He adds that, before we can make an intelligent attempt to exterminate dangerous mosquitoes, we must ascertain definitely what species in this country are dangerous and what are their distribution, their habits, and their breeding places.

SUBLINGUAL FIBROMA OF NURSLINGS (RIGA'S DISEASE; FEDE'S SUBLINGUAL PRODUCTION.)

A GREAT deal has been published of late in Italian medical journals concerning a small fibrous growth that occurs in infants, usually after the eruption of the lower central incisors, and is situated at the frenum on the lower surface of the tongue. Judging from the number of cases reported in literature, this affection is rare; in fact, the Italian authorities assert that, so far as they know, these growths are practically never seen except under the sunny skies of their own country. Even there they are said to be limited to the southern provinces, but very few cases having been observed in northern and middle Italy. Only two cases have been reported outside of Italy, and these were observed in France by Brun and by Dufornier in 1895.

The growth usually begins in the form of a whitish patch upon the lower surface of the tongue. Gradually this patch assumes the shape of a small, hard, fibrous button, pearly-white in color, bloodless, sometimes depressed, sometimes umbilicated. It varies in size from that of a pea to that of a coin of fifty centesimi; it is well circumscribed and rests upon the frenum by a broad base. The adjacent lymphatic glands are not enlarged, and the tumor is not subject to inflammatory changes.

Almost since the first cases were reported by Urbano Cardarelli, in 1857, there have been two theories concerning the nature of these growths. One group of observers believed that "Riga's disease" was an infectious process, accompanied by general symptoms and by gastroenteritis and gradually followed by a severe progressive cachexia of infectious origin which terminated fatally. The second group, on the other hand, maintained that the disease was a purely local affection, a new growth due to accidental causes. They admitted the occurrence of intestinal catarrh, of cachexia, and of a fatal termination, but asserted that this train of events was simply due to the ordinary causes of gastroenteritis and of marasmus. This latter view has gained the ascendant in consequence of the masterful work of Francesco Fede, of Naples, and is now indorsed by most pædiatric authorities.

Pandolfi, in 1875, was really the first to give a correct description of the affection. Riga's article appeared in 1881. He regarded the growth as a "membrane due to an internal infection." In the same year Chiariello, not knowing of Pandolfi's work, called the affection "Riga's disease." The work of De Marinis and of Somma, in 1882, did not add materially to our knowledge of these growths, and Somma even increased the confusion by comparing them to certain lesions described by Ridola, in 1872, in Wertheimer's work on diphtheria. Fede's papers on the subject were read at the Italian Pædiatric Congresses in Rome in 1890 and in Naples in 1892, as well as at the International Medical Congress in 1894. Boccardi and Concetti, at these congresses, agreed with Fede that the growth was a papilloma of local origin, induced by the irritation of the incisors, while Pianese held that the tumor was an infectious granuloma. In 1895 the reports of Brun and of Dufornier appeared, and in 1899 the articles of Rossi and Gazzotti. During the current year six articles have appeared on the subject, by Fede, Riga, Gianelli and Memmi, Callari and Phillipson, Callari, and Fedele. The last-named authors agree in their acceptance of Fede's views, but Callari and Phillipson find the growth to be a fibroma, and not a papilloma, as Fede described it.

It seems strange that the occurrence of such a simple fibrous growth should be limited to Italy when there is no apparent reason why this should be so, unless we choose to hide our ignorance concerning the ætiology of the growth behind the convenient screens of "climate" and "race." We have been unable to find any cases reported in the United States, but we confess that we have been greatly hampered in our bibliographical work by the multiplicity of synonyms with which the name of this growth is burdened. One of the recent writers on the subject, Callari, attempts to account for the endemic nature of the growth by comparing it to keloid in the African race and to the congenital pigmentation in the Japanese. It is possible that when the attention of American physicians has been called to these growths reports of cases observed in this country will appear. Even if race is concerned in the ætiology of the affection, there is no reason why these tumors should not be observed in our immigrants from southern Italy.

THE CALMETTE SERUM IN PIKE COUNTY, PA.

THE recent newspaper accounts of the successful use of Dr. Calmette's antivenomous serum on a dog in Milford, Pa., are correct. The dog belonged to Dr. Louis de Plasse, of New York, and Dr. de Plasse, who happened to have some of the serum with him, purposely waited until the dog was moribund, and then injected ten cubic centimetres of the serum. The result was the dog's perfect recovery within two hours. The rattlesnake that had bitten the dog was about five feet long. This instance is said to be the first one of the use of the Calmette serum in the United States.

THE FAR-REACHING DANGERS OF OPIUM SMOKING.

The dangers of the vice of opium smoking as practised by Europeans and others returned from the Orient have a far wider reach than the damage done to the individual, as is shown in an article by Dr. Berillon (*Archives orientales de médecine et de chirurgie,* April; *Treatment,* July). Dr. Berillon reports a case in which the vice was acquired by a wife from inhaling the fumes of her husband's pipe which permeated the house. The atmosphere of the room, saturated with opium vapor, established a craving which she was unable to resist. A further evidence of the pernicious effects is shown in the fact that the nurse, who was frequently in the opium atmosphere, manifested a desire not to be removed from the influence of the drug, and even the house cat showed a decided objection to leaving it. Our increasing commerce with the Orient renders it necessary that our physicians should be on the watch for the introduction and possible spread of the enervating and pernicious habit.

LAY CRITICISM OF MILITARY MEDICAL MEASURES.

The example of Mr. Burdett Coutts in relation to medical matters in the South African campaign has had a follower in regard to our campaign in the Philippines. Miss Margaret Astor Chanler has been, according to the *New York Times* for August 8th, severely criticising the military medical methods in the Philippines, alleging a lack of nurses, lack of surgeons, lack of medical supplies, etc. The matter has been referred by Secretary Root to Surgeon-General Sternberg, who has submitted to the secretary what is considered a perfect refutation of the charges made. The fault, in our opinion, lies in the fact that well-meaning people without any acquaintance with the exigencies of warfare and its eternal surprises and uncertainties, expect to find things working as smoothly as in a well-organized civil hospital. They look at the subject solely from the medical point of view, forgetting that in military matters the medical and humane aspects must always be subordinated to military exigencies, requirements, and possibilities. It is well, of course, that all charges that are not merely vexatious should be fully investigated, and we are sure that no one would fall in with that more heartily than the military medical chiefs; but the general public should learn to reserve judgment until it is proved, not only that the conditions are really as bad as represented, but that such a state of things could have been avoided without presupposing impossible foresight.

THE SALVATION ARMY AS A NOISE NUISANCE.

From the *New York Times* for August 3d we learn that a complaint was laid on August 2d at the West Side court by residents in West Thirty-fourth street, between Seventh and Eighth avenues, concerning the Salvation Army barracks in West Thirty-fifth street. From the complaint it appears that the blowing of tin horns and the loud exhorting of some of the preachers makes life miserable to many residents in the vicinity, and we can easily understand that this is so. It seems absurd that because these proceedings are alleged to be religious exercises an amount of discordant noise should be permitted which would lay a private householder open to a charge of disorderliness. But if such proceedings are a nuisance to the healthy and vigorous, what must they not be to invalids or to nervous people? The remedy is plain. The Salvation Army is not a poverty-stricken sect. It has money enough to build substantial barracks on valuable sites. Let it be compelled to build sound-proof buildings, or, if renting buildings, either to make them sound-proof or to restrain its devotional exercises within such limits as shall make them no longer a nuisance, and worse than a nuisance, a detriment to the health of its neighbors.

THE DANGERS OF CELLULOID ARTICLES OF WEARING APPAREL.

Many instances of the dangers of celluloid combs, etc., are on record, but, according to the *New York Times* for August 6th, a motorman at Waukesha, Wisconsin, has added a novel one to the list. While he was handling a burned-out motor, the controller came in contact with a celluloid collar which he was wearing. In a moment his neck was encircled by fire and he was severely burned. Celluloid is too inflammable a material to be safe to wear in any form, and especially for those whose vocations keep them in contact with fire or electrical currents.

MERCENARY MEDICAL JOURNALISM.

Apropos of a statement in the *Cleveland Journal of Medicine,* cited in *Vratch,* to the effect that only about twelve of the numerous medical journals published in the United States have any other end in view than to obtain advertising patronage, *Lyon médical* for July 8th has the candor to say that one need not go to America to study the influence of advertising on the medical press, for European civilization is already on a par with the American in that respect.

THE MEDICAL PROFESSION AND THE HALL OF FAME.

The *Sun* publishes a list of 234 names that were submitted to the judges on Wednesday for consideration as to their fitness to be perpetuated in the Hall of Fame of New York University. Among those of medical men were Valentine Mott, Benjamin Rush, James Marion Sims, Ephraim McDowell, and John Collins Warren. We wonder that Elisha Bartlett, Nathan Smith, and Daniel Drake have thus far been omitted.

THE NURSE'S MAID.

THE *Evening Sun* for August 3d quotes from "an exchange" (a nebulous expression that the *Sun* is not often guilty of using) a woman's story of neglect in a private hospital—not willful neglect on the part of the nurse, but omission of immediate attention by reason of the patient's inability to communicate with her. She suggests the employment of a corps of nurses' maids, who might be little girls, and the suggestion seems to us a good one.

ITEMS.

Infectious Diseases in New York.—We are indebted to the Sanitary Bureau of the Health Department for the following statement of cases and deaths reported for the two weeks ending August 4, 1900:

DISEASES.	Week end'g July 28		Week end'g Aug. 4.	
	Cases.	Deaths.	Cases.	Deaths.
Typhoid fever	25	13	44	14
Scarlet fever	60	3	51	5
Cerebro-spinal meningitis	0	7	0	7
Measles	121	8	96	6
Diphtheria	158	23	160	27
Laryngeal diphtheria (croup)	5	4	7	5
Tuberculosis	225	144	186	145
Chicken-pox	5	0	20	0
Small-pox	0	0	0	0

Memorandum for the Expeditionary Force for China.—Dr. de Lanessan, the French Minister of Marine, has, according to the *Gazette médicale de Paris* for July 14th, addressed the following circular to the maritime authorities concerning the climate and resources of the region between Tien Tsin and Peking:

"In the north of China the seasons are sharply marked; the rains begin in June and end in October. This is the season of south winds with high temperatures. During this season the temperature ranges from 82.4° to 89.6° F. in July and August; in September it varies between 64.4° and 71°. In October it falls abruptly to from 50° to 54°, and in November, December and January a rigorous cold prevails. This is the season of north and northeast winds, with storms of ice-dust and a mean temperature of from 42.8° to 54°. The climatology of North China may be stated in the following formula: A temperature elevated to almost tropical heat in summer; rain deluges with south winds from June to October; severe cold in winter with north winds and dust-storms. During the rainy season the watercourses overflow, the earth is inundated, and the roads, bad at the best of times, are entirely impassable. During winter the soil is covered with a thick layer of dust in which vehicles become buried to mid-wheel, and can advance only with the greatest difficulty. The drinking water in China is of vile quality. This is a point beyond doubt, and one which it is necessary to insist upon, in consequence of the frequency and gravity of intestinal disorders. The Chinese rarely drink plain water, but replace it with tea. On the vessels of the China station exclusive use, as a drink, has been made for many years of distilled water, to which important sanitary measure it is due that the health of the crews has been maintained in a satisfactory condition. For an expeditionary force operating in these regions, however, the water question is one of the greatest difficulty. It is impossible to supply distilled water, or sterilized water obtained by special apparatus, which must be reserved for hospitals and permanent land establishments, to a column on the march. The most that can be done is to supply boiled water, and even that under many circumstances will be very difficult. As much as possible, the Chinese use of tea should be followed, and special care should be taken to prevent the men using any other drink than this, which has the advantage of being an economic aliment. Taken hot or cold, tea is an excellent drink without any drawbacks, if not used to excess. Hot tea quenches thirst much better than cold, even in hot weather. On the march it will be also of great service to make use of pocket filters of the Lapeyrère system with permanganate of potassium. These filters relieve water of many of the most noxious germs. They will be served out to the troops.

"For the disinfection of wells, which are always contaminated in China, the use of permanganate of potassium, at once effective and economical, is recommended. From 75 to 150 grains of permanganate are sufficient for a quart of water. It is to be used concurrently with a mixture of a quart of powdered wood charcoal and three quarts of fine sand. The commissariat carries five hundred and fifty pounds.

"The soldier must urgently avoid the use of alcohol in China. For four thousand years the Chinese have prepared alcohol and use it freely, although tradition says that the author of its discovery was put to death. In the north of China a brandy is manufactured from sorghum whose depth of color varies inversely as its purity, and it possesses a very pronounced empyreumatic taste. This brandy is sold at the lowest price, viz., from six to ten cents a quart. Another spirit made from grain is equally impure and offers still greater danger to health. Meat can be procured in the north of China, as well as fowls, game, fresh vegetables, and fruits of good quality. It is necessary, however, in general terms to forbid pork, the hog being often measly and trichinosed. The river fish are bad in consequence of the excessive saltiness of the watercourses. It has always a very marked muddy taste, and it is prudent to abstain from it, as well as from the lobsters and prawns which are found in the streams.

"The north of China possesses thickset horses, ungainly of form, with large head and small crouper, reminding one of the Scottish pony. It possesses also very sturdy mules, which are of good form, and in this region almost entirely replace the horse, both for saddle and for draught purposes. During the hot season paludism flourishes with great intensity in the Peiho Valley, and it is necessary, in order to guard against its attacks, to follow rigorously the prophylactic rules laid down for expeditions in malarious countries. As regards the special measures to be adopted under the circumstances, the military commanders must consult with the sanitary authorities. Sunstroke frequently occurs in July and August, and congestion of the liver also is very common during the summer months, but the prevailing trouble in China, paludism apart, is certainly diarrhœa, which frequently offers complications of serious gravity. It is, therefore, necessary that all cases of diarrhœa, even those of seemingly the mildest type, should be carefully attended to at the outset; for epidemics of cholera are frequent in China, and every diarrhœa may become the starting-point of cholera if the intestine is already invaded by the *vibrio* of that disease.

"During the winter, affections of the respiratory tract are numerous, as well as rheumatic ailments; petechial typhus and diphtheria also are often observed during this inclement season. Variola flourishes among the population of China almost permanently, vaccination not being used, as among European peoples. It is necessary, therefore, that all members of the expeditionary force should be revaccinated. From these data, climatological and pathological, it will be seen that it is necessary to provide for the troops operating in the clearly defined seasons, an equipment appropriate to the special conditions to which they will be subjected. For the hot season, the campaign kit should be as for hot countries, with helmet, flannel belly-band, etc. Moreover, rubber sheets have been ordered for spreading on the damp ground, and mosquito bars in consequence of the abundance of mosquitoes. For the rigorous winter of northern China, the men should wear cloth uniforms such as they wear in France, and there should be served out to them, moreover, woolen hose and knitted vests; and the general commanding should be able, further, to authorize the use of fur vests, which both soldiers and officers will be able to procure easily in the country on very reasonable terms."

Marine-Hospital Service Health Reports.—The following cases of small-pox, yellow fever, cholera, and plague were reported to the surgeon-general during the week ending August 4, 1900:

Small-pox—United States.

Cape Nome, Alaska	July 1	17 cases.	
Wichita, Kan	July 21-28	4 "	
New Orleans, La	July 21-28	7 "	4 deaths.
Lowell, Mass	July 21-28	4 "	
Au Sable, Mich	July 14-21	1 case.	
Durano, Mich	July 14-21	2 cases.	
Grand Rapids, Mich	July 14-21	2 "	
Hersey, Mich	July 14-21	1 case.	
Waker Township, Mich	July 14-21	1 "	
Springwells T'ship, Mich	July 14-21	8 cases.	
Manchester, N. H	July 21-28	3 "	
Cincinnati, Ohio	July 20-27	1 case.	
Cleveland, Ohio	July 21-28	18 cases.	
Salt Lake City, Utah	July 21-28	3 "	

Small-pox—Foreign and Insular.

Prague, Austria	June 30—July 14	8 cases.	
Antwerp, Belgium	June 30—July 7	7 "	
Brussels, Belgium	June 30—July 7		1 death.
Liverpool, England	July 7-14	1 case.	1 "
London, England	July 7-14	17 cases.	
Lyons, France	June 30—July 7		4 deaths.
Paris, France	July 7-14		3 "
Frankfort on the Main, Germany	June 23-30		1 death.
Konigsberg, Germany	June 30—July 7	1 case.	1 "
Gibraltar	July 8-15		1 "
Athens, Greece	July 7-14	1 "	4 deaths.
Bombay, India	June 26—July 3	1 "	3 "
Calcutta, India	June 23-30		27 "
Karachi, India	June 24—July 3	3 cases.	2 "
Vera Cruz, Mexico	July 14-21		5 "
Manila, Philippine Islands	June 8-16	1 case.	
Moscow, Russia	June 23—July 7	12 cases.	7 "
Odessa, Russia	June 30—July 7	5 "	1 death.
St. Petersburg, Russia	June 30—July 14	76 "	25 deaths.
Glasgow, Scotland	July 13-20	52 "	1 death.
Madrid, Spain	June 2-23		43 deaths.
Straits Settlements, Singapore	June 2-9		2 "
Geneva, Switzerland	June 23-30	2 cases.	

Yellow Fever—United States.

Willsboro Co., Florida	August 2	2 cases.	

Yellow Fever—Foreign.

Barranquilla, Colombia	July 1-14		5 deaths.
Bocas del Toro, Colombia	July 26-31	4 cases.	1 death.
Port Limon, Costa Rica	July 19	1 case.	Suspicious.
Cienfuegos, Cuba	July 17	1 "	On transport Sedgewick.
Havana, Cuba	July 16-23		9 deaths.
Matanzas, Cuba	July 26		1 death in barrack.
Santa Clara, Cuba	July 21	2 cases.	
Vera Cruz, Mexico	July 14-21		7 deaths.
San Salvador, Salvador	June 27	Present.	
Cartagena, Venezuela	June 1-30	16 cases.	

Cholera.

Hongkong, China	June 16-23	1 case.	1 death.
Bombay, India	June 24—July 3		109 deaths.
Calcutta, India	June 23-30		55 "
Madras, India	June 23-29		1 death.

Plague.

London, England	August 3	4 cases.	2 deaths. On P. & O. S.S. Rome.
Bombay, India	June 26—July 3		49 deaths.
Calcutta, India	June 23-30	2 cases.	79 "
Karachi, India	June 24—July 1	2 "	1 death.
Manila, Philippine Islands	June 8-16	6 "	3 deaths.
Beirut, Turkey	July 2	Present.	

Pith of Current Literature.

Medical Record, August 4, 1900.

Cancer of the Stomach and Intestines. By Dr. B. Farquhar Curtis.—After quoting from Wolfler, who was able to find twenty-four patients on record who remained well from two to eight years after pylorectomy for carcinoma, the author expresses his conviction that before long we shall be able to state definitely the proportion of cases in which the patients are likely to remain well after the operation. As to the danger of resection, the mortality does not seem to be settled, estimates varying from twenty-one to thirty-one per cent. What cases are suitable for operation? Each case must be judged upon its own merits. The importance of an early diagnosis cannot be exaggerated. The fact that, in fifty-four cases of cancer examined post-mortem (Streit), twenty-five per cent. of them, judging by the local conditions, would still admit of successful resections seems to point an obvious moral. The author reviews the subject of intestinal carcinoma in brief and much of interest will be found in it. He favors the operation of intestinal anastomosis as compared with the artificial anus; but admits that one disadvantage attaches to it, in that, in the latter operation, it is possible to select a point in the bowel far away from the tumor and not likely to be invaded later by the disease.

Hydrotherapy in Pneumonia. By Dr. Simon Baruch.

The Use of Hypnotism in General Practice. By Dr. E. H. Martin.

Some Points Bearing on the Medicinal Treatment of Appendicitis. By Dr. Charles Rosewater.

Medical News, August 4, 1900.

The Treatment of Summer Diarrhœa in Infants. By Dr. Charles Gilmore Kerley.—The true nature of this affection is not appreciated by the rank and file of the profession. A classification founded upon the appearance of the stools is impossible, as the appearance often changes from one hour to another. A bacteriological examination is our only means of classification. In a normal case with green, loose stools containing undigested milk and mucus, a teaspoonful of castor oil and one grain of calomel in divided doses (1-10 of a grain hourly) should be given. In very active cases a smaller amount of calomel should be given. Milk diet should be stopped at once, whether breast milk or sterilized or unsterilized cow's milk or goat's milk. Dextrinized barley water should be substituted. In case of vomiting gavage should be brought into use. Later on, from one to two ounces of chicken, beef or mutton broth may be added to the barley water. The soluble proprietary foods are also of use. The only drugs of use besides castor oil and calomel are bismuth subnitrate and opium. Tannigen and tannalbin have a very limited field of usefulness. Irrigation of the colon has been overdone, but will be found useful where the stools are infrequent and foul, and where, particularly, there is any blood or much mucus. A one-per-cent. boric acid solution or normal salt solution is employed. It is hardly necessary to say that common sense must be exercised in regard to the child's clothing and comfort, while the usual aseptic precaution should be taken in all dietary manipulations.

On Methods of Closure of Abdominal Incisions. By Dr. Maurice H. Richardson.

The Consumptive in Los Angeles. By Dr. Wm. H. Dukeman.

The Evolution of the Modern Physician. By Dr. William Alfred Elliston.

The Surgeon in the Nineteenth Century. By Dr. Frederick Treves.

The Boston Medical and Surgical Journal, August 2, 1900.

Asphalt Pavements; their Nature and Desirability. By Clifford Richardson.—The author considers the origin and history of the paving industry, the constitution of asphalt and its sources, with a description of asphalt deposits, etc., the forms of construction of asphalt pavements, the cost and advantages of such pavements as regards ease of traction, horses' foothold, noise, etc., and lays stress upon their hygienic value as being associated with a decrease in bowel and other complaints.

Effects of Dust Upon the Lungs.—By Dr. Vincent Y. Bowditch.—It would seem to the author that the conclusion to be drawn from his observations is that the danger from such a dust nuisance as we have had is greater from the direct irritant quality of the dust itself than from the chance of the transportation of any infectious disease.

The Effects of Dust on the Upper Respiratory Tract. By Dr. Samuel W. Langmaid.

Recurrent Luxation of the Ulnar Nerve. By Dr. F. J. Cotton.

The Journal of the American Medical Association, August 4, 1900.

The Angiotribe in Abdominal Surgery. By Dr. Hugh M. Taylor.—Whatever model is used the secret of success is in its strength and in the accurate adjustment of its blades. It should not be used upon omental or like fragile tissue. Handling or disturbing the attenuated stump after removing the clamp should be avoided. Cauterization of the stump is not necessary unless there are infectious germs to be destroyed. No drainage is required. In softened œdematous conditions there is the same danger of cutting and breaking of tissue as with the ordinary ligature. The tissues should be distributed equally within the bite of the forceps. The use of the angiotribe requires as much skill and judgment as other, and apparently more complicated, surgical procedures.

Myomectomy per Vaginam. By Dr. J. Riddle Goffe.

Myofibroma Uteri. By Dr. Hermann J. Boldt.

Arrhythmia Cordis Complicating Fibromata Uteri. By Dr. J. Wesley Bovée.

Four Cases of Malaria Associated with Acute Abdominal Pain. By Dr. Joseph A. Capps.

Some Incidents in the Evolution of the Modern Physician. By Dr. William Alfred Elliston.

The Surgeon of the Nineteenth Century. By Dr. Frederick Treves.

The Philadelphia Medical Journal, August 4, 1900.

Morbid Conditions Caused by the Bacillus Ærogenes Capsulatus. By Dr. William H. Welch.

The Early Recognition of Ectopic Pregnancy. By Dr. De Witt G. Wilcox.

A Case of Conjunctival Burn; Recovery without Symblepharon. By Dr. Howard F. Hansell.

Congenital Tuberculosis. By Dr. Benjamin F. Lyle.

Antistreptococcic Serum. A Case in which it was Used with Apparently Remarkable Results. By Dr. D. H. Galloway.

British Medical Journal, July 28, 1900.

Address of Welcome. By Sir William MacCormac. —Delivered at the centenary festival of the Royal College of Surgeons of England.

On the Physiological Action of Senecio Jacobœa. By Dr. J. L. Bunch.—The writer has investigated the physiological action of Senecio Jacobœa, and arrives at the following conclusions: 1. Injection of small doses of an alcoholic extract of the entire plant into the circulation of a dog causes a rise of general blood pressure, with constriction of the peripheral and intestinal vessels. 2. Large doses (0.8 to 1. grain for a dog of 7 kilos) cause a fall of general blood pressure, with dilatation of the intestinal vessels. 3. After several small or one large dose of the alcoholic extract, further injections cause a fall of blood pressure with slowing of the heart. 4. The entire plant, therefore, contains two substances with distinct physiological actions: they have not up to the present been isolated. 5. Watery extracts of the evaporated alcoholic residue produce a fall of blood pressure and cardiac inhibition, due to action of the drug upon the nerve terminations in the heart, and not to action upon the heart muscle. 6. The substance causing a rise of blood pressure is not contained in such watery extracts.

Oral Sepsis as a Cause of Disease. By Dr. Wm. Hunter.—The writer again calls attention to the importance of oral sepsis as a cause of disease, a subject he has been interested in for many years. The term "oral sepsis" is not limited by him to pyorrhœa alveolaris, but includes stomatitis and gingivitis of every degree of severity, and stomati is due to defective dental appliances (toothplates, caps, etc.). All these conditions are produced by virulent pus organisms, especially in cases of necrosing bone, where their virulence is very great. The constant swallowing of pus containing these organisms is a most potent and prevalent cause of gastric trouble. It is highly probable that in the whole group of infectious disorders caused by pus organisms, infection often takes place through the mouth. For example, such disorders as tonsillitis, otitis, maxillary abscess, ulcerative endocarditis, empyemata, meningitis, nephritis and other septic conditions may all start from oral sepsis. More attention should be paid to oral antisepsis. By this the writer means not simple rinsing of the mouth, but (1) direct application to the diseased area of carbolic acid (1 to 20), (2) the removal of all diseased, useless stumps of teeth, (3) scrupulous daily sterilizing by boiling of every toothplate worn, and (4) the avoidance of too much conservative dentistry and the use of "bridges" which cannot be kept aseptic.

A Case of Aneurysm of the Abdominal Aorta Pointing Posteriorly in which the Initial Symptoms were those of Chronic Colitis. By A. E. Maylard, M. B.—The writer reports a case of the above mentioned affection in a man aged thirty-five. He had suffered for eighteen months from chronic colitis, the stools containing mucus. He complained of considerable abdominal pain. On examination a pulsating swelling was observed in the left lower dorsal region close to the spine. Death took place suddenly a few days later. The colitis was supposed to be due to pressure of the aneurysm upon the mesenteric vessels, leading to chronic congestion of the intestinal mucous membrane. No post-mortem examination was made.

An Account of Some Researches Into the Nature and Action of Snake Venom. By R. H. Elliott, F. R. C. S.—This paper, which is in continuation of others upon the same subject, deals with the acquired immunity against snake venom possessed by Indian snake charmers, by mongooses, and by certain other animals. According to the writer's observations the snakemen of South India are ignorant of any method of producing immunity against snake venom, although some few of them appear to practice the swallowing or inunction of venom. They confine themselves almost exclusively to the cobra, and escape harm by their intimate knowledge of the methods of handling this snake. The mongoose can stand very large doses of venom, but always succumbs when the dose is sufficiently great. But it owes its escape from death as much to its agility and to its peculiar, thick bushy fur as much as to any immunity it may possess. A very interesting account of its method of fighting snakes is given (see p. 261).

A Case Bearing upon the Pathology of Acromegaly. By P. G. Lodge, L. S. A.—The writer reports the case of a man aged twenty-two, upon whom amputation of the right leg above the knee for periosteal sarcoma had been performed. About nine months afterward his hands began to enlarge and there was a similar enlargement of the remaining knee. His hands were enormous, symmetrical and possessed very little mobility; the fingers were sausage-like and the nails unaltered. His mind was much clouded, and he became steadily worse, dying a few months later. The case is looked on as one of acromegaly due to secondary sarcomatous growths in the pituitary body. No post-mortem examination was obtainable.

The Lancet, July 28, 1900.

Pancreatitis, with Especial Reference to Chronic Pancreatitis. By A. W. Mayo Robson, F. R. C. S.—Pancreatitis is a disease without pathognomonic signs, and a correct diagnosis can be reached only by a careful study of the history, mode of onset, and combination of symptoms. The essential and immediate cause of the various forms of pancreatitis [acute, subacute and chronic] is bacterial infection. The acute form is ushered in by sudden pain in the upper abdominal region, with collapse and severe, persistent vomiting. The rapid and small pulse is a better guide to the condition of the patient than the temperature, which may be subnormal or elevated. The abdomen is distended, the disease taking the form of acute peritonitis starting in the upper abdominal region. Death usually supervenes from the second to the fifth day from collapse. In the subacute form the onset may be sudden, but the collapse is not so marked, and the other symptoms are not so severe. Tenderness over the pancreas is well marked and the stools are very fœtid and may contain pus or blood. The pain may be paroxysmal and the temperature irregular. If an abscess develops the pus may form a tumor projecting in the superior abdominal region and forming a tender swelling behind the stomach, perhaps coming to the surface above or below. Or the pus may burrow into the loin or follow the psoas muscle. The abscess may burst into the stomach or bowel. Death is the usual termination. Chronic pancreatitis is at first hypertrophic but later cirrhotic. It is considered a rare disease, but the author believes it to be more common than the acute or subacute forms. It usually arises by extension of the inflammation from a chronic catarrh of the pancreatic duct extending from a gastro-duodenal catarrh, though it is frequently associated with biliary or pancreatic lithiasis, or with gastric, pyloric or duodenal ulcer. The onset may be gradual, or ushered in by sharp pain in the epigastrium and jaundice. The tender spot is usually an inch above the umbilicus in the middle line. The jaundice tends to deepen with each attack until it becomes continuous and chronic. The pain may be paroxysmal, or merely a dull ache. Loss of flesh and strength are marked. Diarrhœa is common and the stools are offensive and fatty. The temperature is usually normal, though ague-like paroxysms may occur. In the more chronic cases there will be found a tumor formed by the distended gall-bladder, just as there is in cancer of the head of the pancreas, for which disease chronic interstitial pancreatitis is then apt to be mistaken, and a hopeless prognosis given. The diagnosis has to be made from gall-stones in the common duct, cancer of the head of the pancreas, cancer of the liver and bile-ducts, and chronic catarrh of the bile-ducts. The physical signs and symptoms are of assistance, but in many cases a diagnosis will only be made by an exploratory operation. In the acute form the treatment resolves itself into that of peritonitis: morphine and stimulation. The collapse usually forbids operation. The subacute form is more amenable to treatment. The constipation or diarrhœa can be relieved and the abdominal distension lessened by lavage and enemata. If an abscess forms it is to be incised and drained, just as in the case of any other abdominal abscess. The writer advises operation in every case of chronic interstitial pancreatitis. The relief of tension as the result of draining the bile-ducts by cholecystotomy or cholecyst-enterostomy, indirectly drains the pancreatic duct and leads to subsidence of the pancreatitis. If a calculus be felt in the head of the pancreas, it may be reached through the second part of the duodenum. Out of seventeen such cases operated upon by the writer, sixteen recovered and were restored to health. Whereas in cancer of the pancreas, of sixteen patients only nine recovered, and in these the prolongation of life was short. When we consider that chronic pancreatitis often simulates cancer of the pancreas very closely, it will be seen that an exploratory operation should be seriously considered in almost every case. The writer reports seven illustrative cases.

Hammer-toe and Hallux Valgus and Rigidus. By W. Haward, F. R. C. S.—Hammer-toe consists of a retraction of the toe towards the metatarsus, with flexion at the first interphalangeal joint. It is accompanied by a corn upon the projecting joint, which is the seat of frequently recurring inflammation, and sometimes the starting point of a severe cellulitis. The deformity is dependent upon a hyperextension of the proximal phalanx, a flexion of the second phalanx, and a thrusting upwards and hyperextension of the ungual phalanx. There is no satisfactory explanation of the causes of this deformity. In very severe cases the whole toe may be amputated. In others the deformity may be easily and successfully remedied by excising the head of the proximal phalanx. Hallux valgus or bunion is produced by wearing shoes of which the inner edge slopes towards the middle line of the sole. In severe cases the most satisfactory treatment is excision of the metatarso-phalangeal joint and of the bursa over it and the division of the extensor of the toe. In hallux rigidus the only abnormity seems to be that the joint surfaces are fixed rigidly in close contact but without any real ankylosis. Relief may be obtained by excising the head of the metatarsal bone.

The Present Position of Pharmacy. By E. L. Holmes, F. L. S.—The presidential address at the British Pharmaceutical Conference.

Addison's Disease and Leucoderma. By Sir S. Wilks, F. R. S.—In this communication the writer reiterates his belief that leucoderma never occurs in connection with Addison's disease, and denies that Addison (whose pupil he was) ever admitted it. The pigmentation in Addison's disease is always uniform and never associated with leucoderma or vitiligo. In the past fifty years many cases of leucoderma have been sent to him as supposed examples of Addison's disease. In no single case has this proved to be true. Stress is laid upon the fact that Addison's disease is usually uncomplicated by any other disease but occasional phthisis.

Carbohydrates and Disease. By Drs. E. Pritchard and E. H. Colbeck.—This article is concerned with the harmful effects of excessive carbohydrate ingestion and its causal connection with the incidence of disease. The defective metabolism of nitrogen-containing bodies has long been known as gout or lithæmia; but the group of symptoms associated with the defective metabolism of non-nitrogenous substances has not been given any title, except in the cases of glycosuria and diabetes. For such defective metabolism of carbohydrates the writers propose the name of glycosachthæmia. Hypothetical pictures are drawn of the general condition during the various stages of infancy, childhood, middle life and old age. They are those of rickets, the rheumatic state of childhood, rheumatism and diabetes. In most cases of rickets it is easily proven that there has been a great excess of carbohydrate food, while rheumatic subjects are mostly well nourished. Starving people are rarely subjects to diseases of this type: witness the siege of Ladysmith, where rheumatism was conspicuous by its absence. In these diseases milk diet, which is semi-carbohydrate starvation, is the universal rule of treatment. The "Salisbury treatment" of chronic rheumatism is total carbohydrate starvation. The interaction of lithæmia and glycosachthæmia is not touched on, but it undoubtedly occurs, with the production of disease.

The War in South Africa: Jottings in Burghersdorp. By H. Caiger, F. R. C. S.

Tachycardia Following Enteric Fever. By Dr. C. Burland.—In 265 cases of typhoid fever seen in the early stages of convalescence by the writer, the one pronounced symptom was an unusually rapid, small and compressible pulse. The average pulse rate in the cases of typhoid was 98.25. In less than two per cent. was the pulse rate below 70. In convalescent cases of dysentery, on the other hand, the pulse rate averaged below 80. Tachycardia is uncommon as a sequel to typhoid fever, the reverse (bradycardia) usually obtaining. In the cases here reported it may be assumed that the rapid pulse rate is due to their previous military life: *i. e.,* fatiguing marches and poor and irregular feeding.

A Further Note on the Influence of the Temperature of Liquid Hydrogen on Bacteria. By Dr. A. MacFadyen and S. Rowland.—The writers in carrying on their experiments as to the effect of cold upon micro-organismal life, exposed certain micro-organisms to the temperature of liquid hydrogen. It was found that an exposure of 10 hours to a temperature of about 252° C. had no appreciable effect on their vitality. The following organisms were employed: Bacillus acidi lactici, bacillus typhosus, bacillus diphtheriæ, proteus vulgaris, bacillus anthracis, bacilli coli communis, staphylococcus pyogenes aureus, spirielum choleræ, bacillus phosphoresceus, bacillus pyocyaneus, a sarcina, and a yeast.

Glasgow Medical Journal, July, 1900.

Glasgow Royal Infirmary: the Birthplace of Aseptic Surgery. A Kirkyard Eclogue. By William Findlay, M. D.

Case of Myoclonus Multiplex. By Dr. George S. Middleton.—The case was sent into hospital as one of chorea, but the movements were of such a nature as to exclude that disease. Their clonic character, their rapidity and rhythmic nature, and the fact that the spasms affected almost entirely muscles in a state of relaxation, tended to exclude all the more common forms of muscular spasm, so that ultimately a diagnosis of myoclonus multiplex was reached, which seemed to be confirmed by the facial expression ("the absence of expression is very striking; he looks melancholic, and rarely directs the eyes toward one"), and the mental condition. The author concludes that it would not be far wrong to regard the affection as closely related to hysteria. The treatment adopted was mostly bromide of potassium and chloral, and its success was not greater than was anticipated.

The Hygiene of the Mouth from the Individual and Public Health Aspects. By Dr. Alexander J. F. Skottowe.

Notes on Clinical Gynæcology. By John M. Munro Kerr, M. B., F. F. P. S. G.—The following cases are reported: Large suppurating cyst of the right broad ligament in which the pedicle became twisted during the woman's removal to the Infirmary—Laparotomy. Death on the fifth day. During the days preceding death there was absolutely no tenderness or distension of the abdomen, the temperature was never higher than 99.8° F., and usually much below that figure, except on one occasion, when it registered 100.2° F. The tongue was always moist and fairly clean, and the patient persisted in saying up to the end how exceptionally well she felt. The only indications of a probable fatal termination were given by the pulse, which, on the third day, ran up from 95 to 116, and by the exaggerated feeling of well-being.

2. Cyst of right ovary—Infantile uterus—Ovulation without menstruation. There was an imperfectly developed uterus. Both ovaries were removed on Herman's principle that it is inadvisable to attempt to make an imperfectly developed uterus menstruate.

3. A large myoma of the uterus, with adhesions, removed by enucleation. Pain was complained of after

taking food or purgative medicine, probably due to the tumor being adherent to the transverse colon.

A Case of Epithelioma of the Œsophagus Involving the Pneumogastric Nerve with its Recurrent Branch on the Right Side, and Where the Symptoms Closely Pointed to Aneurysm of the Arch of the Aorta. By Dr. J. Souttar McKendrick, F. R. S. E.

The Clinical Examination of the Blood and its Bearing on the Diagnosis and Prognosis of Disease. By Dr. Carstairs Douglas, F. F. P. S., Glasgow.

The Dublin Journal of Medical Science, July, 1900.

Epidemic Cerebro-spinal Meningitis.—Dr. Henry C. Drury outlines the history of cerebro-spinal meningitis in Ireland from its first recognition there in the year 1846 down to the present time when the disease, in a mild form, has again become epidemic in the city of Dublin. He gives the history of nine cases, the only feature of special interest common to all the cases cited, save one, being the absence of marked and characteristic symptoms, except the retraction of the head, in the earlier stages of the disease. This symptom is very generally seen and was observed in all save three of the nine cases reported by Dr. Drury. Dr. O'Sullivan, who describes the *post mortem* appearance of some of the cases cited by Dr. Drury, states that the fluid obtained by lumbar puncture was turbid but colorless. The pus in the spinal region lay in one case altogether outside the spinal dura, the cord being quite firm and apparently healthy. In the other case it lay in the meshes of or underneath the pia mater, and the cord was softened. In the brain the pus was in all cases in or under the pia-arachnoid. The distribution of the pus on the surface of the brain was very symmetrical. In all cases the cerebro-spinal fluid was greatly increased in quantity, and was turbid, but not bloody or, to the naked eye, purulent. The *Diplococcus intracellularis* was found in the turbid fluid and in the pus, usually in pure culture. It grew best on Löffler's serum, but also on glycerine agar, and less actively on ordinary agar. On these media clear droplets first formed, which then coalesced to form a thick semitransparent or yellowish opaque viscid layer. It lived longest on Löffler's serum, but even here sub-cultures taken five days after inoculation proved sterile. It grew well in the cerebro-spinal fluid itself. Plate cultures on blood agar (Wertheim's method) showed granular colonies yellowish brown in color. The central part of the colony was made up of a heap of small spherical nodules exactly resembling those described by Wertheim as occurring in the colonies of the gonococcus. In the pus the organisms were seen in the pus cells usually in small numbers, diplococci with their adjacent surfaces flattened, varying a good deal in size and depth of staining. They did not stain by Gram's method. Inoculation experiments were unsuccessful.

Epidemic Cerebro-spinal Meningitis in Dublin. By Alfred R. Parsons, M. D., F. R. C. P.—The author gives the clinical records of seven cases which came under his own observation in the Royal City of Dublin Hospital. His observations are not particularly novel but rather tend to confirm those made by previous writers upon this subject. Kernig's sign was found in all the cases observed, where it was looked for. In some of the cases it appeared as early as the third day and it persisted occasionally until after convalescence set in, gradually diminishing as the patient got well. Dr. Littledale, who presents a pathological report upon material furnished him by Dr. Parsons, describes at some length the characteristics of the organism found by him in the fluid drawn from the spinal column by lumbar puncture. He concludes that the organism which he always found present in this disease has no relation to the diplococcus pneumoniæ, but has a great similarity to the gonococcus in its shape, intracellular arrangement and its growth on serum agar.

Symptoms or Phenomena Formerly Known as Croup; the Diseases which Produce Them, and the Clinical Significance of the Various Allied Affections Embraced by the Term.—Dr. Langford Symes summarizes the characteristic features of the widely-varying conditions to which the layman, and to a less extent, the physician characterizes as "croup." There being no such disease as croup, he divides the conditions to which this term is applied into three distinct diseases, viz.: Diphtheria, laryngitis and laryngismus. The treatment depends, of course, upon the diagnosis of the particular case and this it is extremely difficult, and frequently impossible, to make with absolute certainty. As to diphtheria, to which are attributable nearly all of the deaths charged to "croup," the author holds that there is evidence indicative of the existence of several varieties of the disease to which the same term is now applied. Experiments in the laboratory may give results which clinical observation entirely fails to endorse. The author considers that the following conditions stamp as diphtheria any case with urgent croupy symptoms. Gradual onset, ordinarily two or three days, with gradually rising temperature, developing croupy stupor on the fourth day; the cervical glands enlarged, hard and painful; increased area of cardiac dullness (varying during the day); albumen in the urine; and, of course, the presence of membrane in the throat, and of the Loeffler bacillus. The distinguishing features of acute laryngitis and of laryngitis stridulosa are given. The latter closely simulates diphtheria save that it has a sudden onset, occurs at night, is frequently recurrent and often affects several members of a family; it occurs in children above three years of age, but ceases when the child is twelve or fourteen years of age. The conclusions drawn by the author are that: 1. There is no such true disease as croup, croupy symptoms being produced by a variety of different diseases. 2. Severe croupy symptoms are most likely to be due to either diphtheria or laryngitis stridulosa. 3. In difficult and doubtful cases we should suspect diphtheria, and treat it as such from the start with antitoxine. 4. Recession and restlessness are the two most dangerous symptoms. 5. As antitoxine reduces the mortality of diphtheria, and enables cases to be tided over the crisis by intubation, it may possibly contribute to the future success of tracheotomy. 6. The deaths registered as croup are mainly due to diphtheria.

La Presse Médicale, July 18, 1900.

Aniline Poisoning. MM. L. Landouzy and Georges Brouardel call attention to the widespread use of the aniline dyes in the arts and the possibility of poisoning when the articles so prepared are taken into the mouth. They report several cases of children poisoned by sucking the yellow stain from their shoes, which, it transpired, was obtained by the use of yellow aniline dye. They draw the attention of hygienists and medico-legal experts to the possibility of this form of poisoning.

Unilocular Cyst of the Pancreas. M. Léon Berard, in reporting two cases, says that extirpation should be attempted if the cyst has a pedicle and is not bound down by dense adhesions. If it lies behind the epiplöon and is covered by large vessels or by adherent intestine, it is wiser merely to empty it of its contents than to increase the immediate danger by attempting to enucleate it.

July 21, 1900.

Recurrent Miliary Pustular Eruptions of the Face.—M. L. Brocq reports a case of the disease named by him "miliary" acne, which recurred after an apparent cure. He emphasizes the study of individuality in each case. The pustules yielded, on culture, no bacteria. The disease appears only in women between twenty-five and sixty years of age who have congestion of the face from one cause or another, or who have vascular dilatation of the vessels of the face.

Histology of Myelogenous Leucæmia. By M. Henri Dominici.

Cutaneous Cyst-adenoma of the Sweat Glands.—M. R. Meslay and M. Colin report such a case in which the tumor developed from the sudoriparous glands, was cystic in character and contained fibrous elements. The sebaceous glands were hypertrophied and the neighboring sweat glands had undergone dilatation.

Deutsche Medizinal-zeitung, July 16, 1900.

Apparatus for Improving Carbonic Baths.—By Dr. Langebartels.

July 19, 1900.

Treatment of Renal Diseases with Carbonic Baths. By Dr. Hans Leber.

July 23, 1900.

Influence of Storms Upon "Colds." By Dr. Bachmann.

Wiener klinische Wochenschrift, July 19, 1900.

Post-typhoidal Suppuration of the Thyreoid Gland.—Drs. Anton Schudmak and J. A. Vlachos report a case of typhoid fever followed by suppuration of the thyreoid gland, the pus of which contained typhoid bacilli. The authors do not attribute secondary affections due to the Eberth bacillus to the virulence of the bacilli except in cases in which the virulence is intense. The leucocytosis of peripheral inflammations evoked by the typhoid bacillus, in contradistinction to the leucopænia of typhoid fever, seems to the authors, to be attributable to the invasion of the main organs of manufacture of the leucocyte in the latter disease.

Severe Anæmia in Spinal Disease. By Dr. Otto Marburg.

Basedow's Disease and Thyreoidism. By Dr. Robert Breuer. (*Conclusion.*)

Centralblatt für innere Medicin, July 21, 1900.

On Posture in Acute Pericardial Effusions. By Dr. F. Aporti and Dr. P. Figaroli.—The authors, who are connected with Professor Riva's medical clinic in the University of Parma, have made an elaborate experimental investigation of the influence exerted by the patient's posture on the percussion signs of acute pericardial effusion. In substance, their conclusions are as follows: 1. Pericardial effusions are recognizable by percussion only when they amount to from 150 to 200 c. cm. 2. The greatest amount that can collect in the pericardium is from 650 to 700 c. cm. 3. In the horizontal posture the area of cardiac dullness is enlarged in all directions, and is proportionate to the amount of the effusion; in the upright posture the extension of the area of dullness is chiefly in the region of the apex and toward the liver. In the supine posture the anterior surface of the heart is only partly covered by the effusion; in the upright posture it may be wholly covered. 4. In the horizontal posture the great vessels are surrounded by the effusion, even if it is only moderate in amount; in the vertical posture the base of the heart is free, even if the effusion is large.

Centralblatt für Chirurgie, July 21, 1900.

On Sterilization of the Hands by Means of a Waterproof, Elastic, Sterile Coating of Varnish. By Dr. Josef Lévai.—The author recounts his numerous attempts to make a suitable varnish for the hands. The best, he thinks, is made as follows: Two parts of copal and four of Venice turpentine (by weight) are gently heated together, with continual stirring, until they are melted to a homogeneous glassy mass. In this process the water contained in the copal and the volatile oils of the turpentine are driven off. After cooling, the mass is dissolved in 100 parts of sulphuric ether, and 100 parts of collodion are added. The solution is somewhat cloudy, but may be cleared by the addition of eight parts of acetone. The author has been induced to publish his process by the fact that another preparation for the same purpose, which he regards as inferior, has been patented under the name of "chirol." He admits that his own varnish is not altogether faultless.

July 28, 1900.

Operative Treatment of Dupuytren's Contraction.—Dr. Georg Lotheissen advises a crescentic incision beginning a little beyond the centre of the palms, having its greatest curve over the hypothenar eminence, and extending along the ulnar surface of the palm to the first inter-phalangeal joint of the affected finger. This flap is carefully dissected up. It is closed by suture after all bleeding has been stopped.

Centralblatt für Gynäkologie, July 28, 1900.

The Colpeurynter and Metreurynter.—Dr. Bosse has used the colpeurynter sixteen times in cases of placenta prævia, severe nephritis, eclampsia, intra-uterine asphyxia of the fœtus and pathological positions of the fœtus. Three of the mothers died, two of eclampsia and one of rupture of the uterus. Nine of the children were born dead. The metreurynter was employed twelve times. The author calls attention to the danger of prolapse of the cord when the instrument is withdrawn. He cautions against believing that cervical dilatation is always coincident with labor pains, although it is apt to be. The excellent results achieved by the use of this appliance in cervices stenosed by cicatrices are emphasized by Bosse.

Deutsche Aerzte-zeitung, July 15, 1900.

The Relation of Epilepsy to Migraine.—Dr. M. Bernhardt narrates a case in which a patient with migraine gave evidences of epileptic seizures. He is inclined to believe that a causal relation exists between the two conditions.

Abdominal Injury Due to Indirect Violence.—By Dr. von Hippel. (*To be continued.*)

The Larvæ of Flies as Human Parasites.—By Dr. Erich Peiper. (*Continued article.*)

The Confinement of "Nervous" Women.—Dr. Oskar Schæffer describes a number of cases in which neurotic symptoms presented themselves: atony of the uterus, cessation of labor pains, precipitate labor, vesical irritability or loss of tone, tetanic contractions of the uterus with hyperæsthetic pains, vaso-motor and reflex nervous disturbances, et cetera. These various phenomena appeared without any palpable pathological lesion.

Gazzetta degli ospedali e delle cliniche, July 8, 1900.

A Case of Typhoid Fever with General Hæmorrhagic Diathesis. By Dr. Adolfo Pinard.—This complication is rare in typhoid fever, and is only mentioned in passing by most writers on the subject. The patient was a boy aged thirteen years without any hereditary history of hæmophilia. He had a mild attack of typhoid fever that ended in convalescence on the twentieth day. Three days later the writer found him in a condition of severe prostration, delirious, with a pulse of over 100 and a temperature of 102° F., diarrhœa, tympanites, etc.—the symptoms of a relapse of typhoid fever. This relapse was traced to an indiscretion in the diet. On the following day the patient presented an eruption consisting of small, discrete red macules, that did not disappear on pressure. This eruption was found on the sternal region, on the extensor surfaces of the arms, over the anterior superior spines of the ilium, and on the inner surfaces of the thighs. On the next day the face and the neck were involved. The spots that had appeared first became darker. There was epistaxis, the pulse became feeble, and the temperature was slightly lower. The eruption was hæmorrhagic in character; the spots were round, their size varied from that of a lentil to that of a coin of one centesimo, and in some places they were confluent. Hæmorrhages from the bowel, the bladder, the gums, and the nose followed, with great prostration, a filiform pulse, pallor, obscured sensorium, and the pupil reflex nearly absent. In addition to the treatment of the typhoid fever (including sponging) ergotine was given by the mouth and subcutaneously. In two days the hæmorrhages ceased, and the patient got well after a prolonged convalescence. The author believes that in this case the cause of the hæmorrhages is to be sought for in the absorption of toxines from the intestines, an absorption that was the more easy as the intestinal ulcers were like so many open doors for the toxic products.

Concerning Some Hæmorrhages and Bronchopneumonia in Influenza. By Dr. Virgilio Grossule.—The writer reports his observation during an epidemic of influenza that attacked seventy per cent. of the inhabitants of a rural district of Italy. He was impressed with the frequency of hæmorrhages from the nose, bronchi, and uterus that complicated the disease in this epidemic. The epistaxis was so severe in some cases that it was necessary to plug the nasal cavities. In three cases there was bronchorrhagia without any lesions in the respiratory tract. In five cases there was severe metrorrhagia, and in one of these the hæmorrhage lasted seventeen days and was accompanied by persistent vomiting. In a number of cases there was menorrhagia, and in several instances girls who had previously suffered from amenorrhœa complained of too profuse menstruation when the epidemic developed. The writer excluded all other causes of these hæmorrhages, so far as possible, and concludes that they were caused by the specific poison of influenza that had produced a point of lowered resistance in the particular organs involved. All the persons that suffered from these hæmorrhages at the same time exhibited symptoms of influenza in a more or less marked degree. The writer treated thirty-six cases of bronchopneumonia complicating influenza during the three months in which the epidemic was observed. This is remarkable in a community of 2,200 inhabitants where there are usually only two or three cases of pneumonia every year. Of the thirty-six patients with bronchopneumonia, nineteen died.

The Causal Nexus Between Certain Diseases of the Gastrointestinal Tract that Appear in the Form of Epidemics. By Dr. Lorenzo Bidoli.—The writer describes a number of epidemics that occurred in Pordenone and the surrounding communes, and regards water, especially that used for drinking, as the causal nexus between typhoid fever, dysentery, and some curious epidemics of jaundice that have occurred in these Italian towns within recent years.

Riforma Medica, July 2, 3, 4, and 9, 1900.

Primary Pernicious Anæmia, Family Type, Treated with Bone Marrow. By Dr. V. Caecini.—The writer reports a number of cases of primary pernicious anæmia that occurred in the members of the same family, in which he used bone marrow, and formulates the following conclusions as to the value of this substance in severe anæmias: 1. Pernicious anæmia is essentially a myelogenous disease. 2. Its symptoms are due to a deficiency of marrow in the organism. 3. It can be cured by the administration of red bone marrow.

Concerning Microscopic Changes in the Kidneys and in the Liver as a Result of Fatigue. By Dr. Guido Guerrini.—In fatigue certain substances that are responsible for the phenomena of this condition circulate in the blood. The author studies the alterations in the microscopic structure of the kidneys and of the liver produced by the action of these substances, and sums up his work in the following conclusions: In the kidney the cells of the convoluted tubules show the following changes: The protoplasm becomes homogeneous and granular and loses its structural characters. The cells are enlarged in such a manner as to block the tubule completely at times. The outlines of the cells become ill-defined. In animals that have been subjected to still greater fatigue the cells become broken up, and disintegrated particles of protoplasm float in the tubule; among this detritus there are still remains of nuclei. Other parts of the kidney are not changed. In the liver the same changes in the protoplasm of the cells are observed. The liver cells lose their normal outlines and encroach upon the lumen of the biliary canaliculi. In severe fatigue the protoplasm of the liver cells appears rarefied, and porous. Many hepatic cells contain masses of biliary pigment. The author intends to investigate in the future the changes resulting from fatigue in the other organs of the body.

Vratch, June 24, 1900, O. S. (July 5, N. S.).

Is the Bath the Best Method of Cleansing the Body of the Pregnant Woman? By Dr. V. Stroganoff.—Obstetricians agree that with all the modern aseptic precautions the number of puerperal women with elevation of temperature is considerable. The writer investigates the bath that is usually given to women on their entrance into a hospital as a source of infection. The particles of dirt, epithelial scales, etc., that are removed during the bath remain suspended in the water in the bathtub, and when the woman leaves the bath a certain amount of this dirt adheres to the skin. As a rule, the order of procedure is as follows when a patient enters the lying-in hospital: First a vaginal douche, then an enema, then a bath. It is probable that the *Bacillus coli communis* can get into the water of the bath from the region of the anus, where it is present after the enema. [The usual order in American lying-in institutions is: Bath, enema, douche, disinfection of external genitals.] Another possible source of infection is the fact that the bathtub is not properly disinfected after it has been used. In contrast to the inadequate tub bath is the Russian bath, which practically consists of washing and scrubbing the body in running hot water, beginning from the head and going down, so that the dirt of one part of the body never comes into contact with a clean portion. The great objection to the tub bath, from the obstetric point of view, is the fact that the dirty water can get into the vagina. It is known that mud has been found in the vagina and even in the cervix in patients who had been taking mud-baths at watering-places. The writer has determined the fact that water may get into the vagina from the bath by a series of experiments. He put some iodide of potassium into the bathtub, and tested the vaginal secretions after the bath for the presence of iodine by the starch test. The dirt in the water also undoubtedly is deposited upon the nipples of the patient, and thus may get into the glands and into the circulation. He recommends the substitution of the Russian bath, or at least of scrubbing the body with soap under a constant stream of running water with the patient in the sitting posture. In his clinic the substitution of this method has been followed by a decrease of puerperal fever to the extent of 7.4 per cent., as compared with the two preceding years.

Concerning Effusions into the Joints in Hæmophilia. By Dr. I. R. Manteufel.—The diagnosis of these joint affections from tuberculosis of the articulations is very difficult at times, especially if no hereditary or personal history of hæmophilia is present. The writer reports a case that illustrates this difficulty in diagnosis. (*To be continued.*)

On the Question of Gunshot Wounds of the Skull. By Dr. V. E. Meister.—The author emphasizes the uncertainty of the prognosis in gunshot wounds of the skull, and cites a case reported by Stimson, of New York, in which the patient was almost perfectly well a week after the injury, and yet suddenly became unconscious, and died twenty-four hours later. The physician must be very careful in trusting to appearances of recovery, but he must not despair in cases where there is apparently no chance. The symptoms of these wounds sometimes do not correspond to the functions of the injured portion of the brain. If the bullet passes through the skull, emerging at a point opposite to the entrance wound, and if the patient lives through the first three days after the injury, the prognosis is more favorable than in penetrating wounds in which the bullet remains until it is extracted. The writer relates a case of gunshot wound of the skull in which the symptoms did not correspond to the functions of the injured part of the brain. (*To be continued.*)

Concerning the Question of the Contagiousness of Tuberculosis. By Dr. D. N. Jbankoff (*continued*).—The writer enumerates all the facts that he has been able to gather in support of the theory that tuberculosis is contagious, then cites the facts that oppose this theory, and finally discusses evidences of heredity and predisposition. (*To be continued.*)

Excision of Portions of the Vasa Deferentia in Senile Hypertrophy of the Prostate, and the Results of this Operation. (*Continued.*) By Dr. I. V. Roudintzeff.—The author concludes that the results reported in literature, as well as those observed by himself, show that the operation of excision of a portion of the vas deferens is an important step in advance in the treatment of prostatic hypertrophy. He believes that the number of successful cases will increase when there is more accurate and prolonged observation of cases, and when the indications for the operation are more fully established.

Miscellaneous.

The Treatment of Primary Suppurative Keratitis.—Dr. Paul Petit (*Revue Médicale de Normandie,* July 10th) says that from the outset the treatment of this disease is of the utmost moment, since upon it depends the arrest of progress of the disease. It must be directed to three things: the corneal infection, iritis, and lachrymal complications. Against the infection neither curettage nor antiseptic is of equal value with the thermo-cautery. The eye having been cocainized and the eyelids separated, all the purulent parts must be cauterized with the fine blade or the olivary bulb of the thermo-cautery. This cauterization can be equally well accomplished with the galvano-cautery at a dull red heat, or even with a strabismus hook heated to the same degree. It should not be too timid, though a certain lightness of touch is indispensable to avoid causing too deep lesions; and it should be repeated on the following days at the points where progress of the disease has taken place. It is necessary at all costs to check the invasion. It is astonishing what small traces these cauterizations leave when skillfully practiced. To this treatment must be added hot antiseptic lotions of cyanide of mercury, one in one thousand. The iritis and the hypopion must be combated by instillations of atropine, by hot compresses and by paracentesis if necessary practiced at the border of, or in, the cornea if necessary. Finally, the lachrymal complications must be the object of special attention. From the first day, catheterization and antiseptic injections must be made with solutions of cyanide of mercury, or even of nitrate of silver, one to two hundred, and in small quantity. In some cases it is necessary to practice operations upon the sac, as curettage or cauterization; this practice is even systematically adopted by Bourgeois, Kalt and others, but the author thinks such a course too absolute and that in most cases less radical measures are adequate.

Reflex Neuroses from an Adherent Prepuce in the Female.—Dr. A. S. Waiss (*Chicago Clinic,* June) referring to Dr. Edie's article on Reflex Neuroses from Phimosis, mentions two cases of his own of this latter condition in men, in both of which the symptoms, nearly identical, were as follows:

Emaciation, restlessness, trembling of the extremities, pallid complexion, muscular weakness, neurasthenia and melancholia. The patients would slouch about, suspicious of everybody around them, with inability to concentrate their thoughts or to apply themselves to any kind of work for any length of time without excessive fatigue, at times amounting almost to exhaustion. One of the most marked symptoms, and that for which they came to him, was the almost complete sexual impotence. They had both indulged in masturbation. He advised circumcision, and in both cases the result was so happy that the lesson remained deeply engraved on his mind. About the same time he was treating a young lady, eighteen years of age, who presented physical symptoms very nearly resembling those enumerated above. She had a haunting fear and dread of society, especially of the opposite sex; fear of being ridiculed was the predominant thought. Her appetite was very poor and capricious; she was acutely constipated at times, when large doses of cathartics had to be taken before bowels would move. She had always been slender, but in the last two years her emaciation became marked. On close questioning, she admitted masturbating, without seeing anything wrong in the practice, as she had done so ever since she could remember. In this instance, also, heart, lungs and kidneys showed nothing abnormal. Permission for an examination of the pelvic organs was readily obtained, as she had been treated by two different doctors, who in both cases had directed their medications to the uterus.

The uterus was found normal both as to size and location, ovaries normal; tubes could not be outlined; no adhesions or inflammatory products. Menstruation had always been painful, especially the first day, with excruciating backache; in fact, none of the usual symptoms of acute dysmenorrhœa were lacking, so that she had to remain in bed for two or three days at each menstrual period. She was also annoyed with hot flushes and lassitude at times amounting to exhaustion on the slightest strain.

Remembering his male cases, whose symptoms this young woman nearly duplicated, and also the close analogy between the clitoris and the glans penis, he examined the clitoris and was struck with its almost total obliteration through the adhesion of its prepuce or hood. The parts were tumefied and inflamed and excessively sensitive to the touch. The following operation was performed. A general anæsthetic was used, the parts being too sensitive to permit of handling under local anæsthesia. The hood was drawn upward by thumb and forefinger, at the same time pushing in toward the symphisis and causing the glans to become extruded. The adhesions were freed with a small, blunt probe. This was continued till the whole corona, as well as the convex surface, was freed, for the separation is completed only when the back of the corona is exposed. About half a teaspoonful of smegma was removed in this case, with many small concretions deeply buried in the mucous membrane back of the corona.

The prepuce or hood being abnormally long, a narrow strip of skin and mucous membrane was removed with scissors, the wound closed in with a fine continuous catgut suture, and this covered with a thin layer of flexible collodion.

The hood was pulled back and the clitoris was covered with sterilized vaseline, and this procedure was repeated every day for ten days to prevent adhesions from reforming. The immediate improvement that began as soon as the wound had healed was noteworthy. All symptoms gradually disappeared, even her menstrual flow became painless three months after operation. Pain diminished at once, but did not cease till the third molimen. The neurasthenia disappeared, she gained flesh, her complexion became clear, her bowels remained regular, and she regained her health.

The author records two other cases, in a girl twelve years of age and a married woman twenty-seven years of age respectively. There has been masturbation in the child's case but not in that of the woman who was exceptionally passionless. The symptoms and treatment were similar to those of the foregoing case and equally successful. The author advises the routine examination of the clitoris and its hood in all girl babies, as the prepuce of male babies is commonly examined.

The Treatment of Asthma by Anti-diphtheritic Serum.—Dr. F. H. Edgeworth (*Bristol Medico-chirurgical Journal*, June) recently communicated to the Bristol Medico-chirurgical Society some notes on a New Method of Treating Asthma. The treatment he wished to refer to was that by the injection of anti-diphtheritic serum. The case of a man aged twenty-four, who had been asthmatic six years, was instanced. Ten injections of ten cubic centimetres of Roux's serum were said to have completely cured the patient. A letter the speaker had received from Dr. Aikman, of Guernsey, who had treated many cases in this way, was quoted. Dr. Aikman had injected five hundred units each time, the first three being given at intervals of two days. Improvement usually began after three injections. Some patients who had been asthmatic nearly all their lives had been reported cured. Dr. Edgeworth had followed Dr. Aikman's method. No skin rashes had resulted. There were two great classes of asthma—the bronchitic and the non-bronchitic. The serum had no curative effect in the non-bronchitic cases. In the bronchitic it caused watery expectoration for a few weeks, then subsidence, acting apparently as alkalies act, and its efficiency depended upon its power of curing the bronchitis which was present. He had used it in eleven cases. In three there was no bronchitis, and the serum had no curative effect. In the remaining eight, three were cured, three relieved, and two unaffected.

Vasectomy for Enlarged Prostate.—Reginald Harrison, F. R. C. S. (*Medical Fortnightly*, May 25th), essays to demonstrate the existence of certain physical changes in the bladder arising out of chronic prostatic obstruction, which are sufficient to negative or minimize the effects that would otherwise follow the induction of shrinkage of the prostate by castration or vasectomy.

This point presents itself in three ways: 1. From the examination after death of persons who had undergone vasectomy or castration for hypertrophied prostate. 2. From the exploration of the interior of the bladder by suprapubic cystotomy under similar circumstances; and 3. From the examination of collected specimens illustrating various kinds of atonic bladders in persons with enlarged prostates who had been more or less dependent on the catheter.

From one or other of these sources the author has been able to demonstrate: 1. That the usual effect of vasectomy is to induce shrinkage of the hypertrophied prostate. 2. That though this shrinkage affords a readier access to the bladder for catheters and such like purposes it does not necessarily follow that voluntary and natural micturition is thereby restored, failure in this respect being mostly due to structural changes in the bladder itself arising out of long-continued obstruction. 3. That the latter consist of certain kinds and degrees of sacculation, pouching and trabeculation of the bladder, whereby its voluntary expulsive power is permanently and frequently irrecoverably damaged.

As regards the operation, the author has lately further simplified the process of breaking the continuity of the vasa by substituting torsion for section, through a small incision over the duct, with a Spencer Wells forceps. In this way the vas is seized and bared, and a small portion of it is twisted out, no ligature being required. A suture for the skin-wound and a collodion application on gauze completes the dressing. A week or ten days interval in dealing with the two vasa is advised.

So far as the function of the vasa is concerned, in contradistinction to what applies when castration is selected, the author repeats with additional emphasis what he has already written to the effect, that castration extinguishes sexual power, whilst vasectomy does not necessarily appear to do so, though it eliminates the seminal ducts.

In conclusion, he says, it may be deduced: 1. That vasectomy has been shown to be specially effectual in the earlier stages of prostatic enlargement in effecting shrinkage of the gland and the restoration of the natural process of micturition. 2. That in cases where there is evidence to show that the prostate has in the course of degeneration assumed the form and structure of a fibrous growth the conditions are such, provided the symptoms of obstruction warrant the adoption of other measures than catheterism, as to render some form of prostatectomy preferable to either vasectomy or castration. 3. That where, as a consequence of sudden or protracted prostatic obstruction, secondary changes have taken place in the bladder itself, in the form of sacs, pouches, or trabeculation, the possibility of restoring its natural function by any means is extremely unlikely. Under such circumstances the induction of shrinkage of the enlarged gland will do good in affording a readier access for the catheter and in removing spasm, pain or hæmorrhage connected with this or other similar process.

A Case of Hæmorrhagic Purpura Coincident with Lobar Pneumonia and Vaccinia.—M. H. Dervaux (*Journal des Sciences Médicales de Lille,* May 19th) records the case of a child three-and-a-half years of age, which eight days after vaccination displayed around the pustules a large ecchymotic areola of about an inch and a quarter in diameter. Epistaxis set in, recurring nearly every day. The palatal vault was the seat of an elongated and very pronounced ecchymosis, slightly raised. Other patches were found on other parts of the body. The temperature was 104° F. There were no digestive troubles, no inflation of the belly. The spleen was normal. There was slight cough but no morbid physical signs in the thorax. The child was taken into hospital with the provisional diagnosis of bilious hæmorrhagic purpura and probable pneumonia. The subsequent course of the case justified the diagnosis. Recovery was natural. The author then discusses the various forms and causes of purpura, dwelling especially on those that appear in the course of intoxications and infections. They are often observed in variola, scarlatina, measles, scurvy, typhoid, anginas, and severe jaundice. They are more rare in other affections, especially those present in this case. Up to 1897 only fourteen cases of purpura associated with vaccination had been published. It occurs principally among those predisposed to hæmorrhages. With pneumonia the association of purpura is rarer still. The author sums up as follows: 1. The appearance of infectious or toxic purpura may supervene in consequence of any toxi-infectious agent. 2. The nature of the agent is indifferent. Only the degree of infection needs consideration as an interesting factor. Localized infections as lobar pneumonia or broncho-pneumonia rarely determine its appearance. In the rare cases where it is so produced some adjuvant cause, *e. g.*, vaccinia, should be sought. 3. The vascular alterations are, perhaps, due to a special product resulting from the effort of the organism at self-defence, rather than to destructive processes dependent upon the noxious agent. The hæmorrhagic action of therapeutic serums is an argument in favor of this point of view.

A New Procedure for the Induction of Premature Labor.—Dr. Magniaux (*La Normandie Médicale*, June 15th) describes the following method. The patient is placed in the obstetrical position and a sublimated vaginal douche given. The fourchette is drawn down with a retractor, by an assistant, and with or without fixing the cervix uteri with a volsellum, one extremity of a strip of glycerinated gauze is inserted into the cervix. Then little by little the whole of it is introduced entirely within the cervical cavity, prodding it in gently. The vagina is next packed loosely with iodoform gauze and the vulva covered with a dressing of absorbent cotton. If uterine contractions are not set up in about twenty-four hours, this packing may be removed, and a fresh and somewhat fuller one substituted. The author considers the advantages of this method to be as follows: 1. The procedure is easy and within the capacity of all. 2. It does away with two great risks inherent to Krause's method, *viz.*, the premature rupture of the membranes and hæmorrhage. It acts more rapidly also. It is, however, less constant in its results than the latter; but, even so, the tamponing of the cervix will not have been useless, for by dilating the cervix it will have facilitated the introduction of the inflator or sound.

[This method appears to be practically almost identical with that suggested by Spinelli in the *Archivio italiano di ginecologia* for December, 1898, and abstracted in this *Journal* for July 1, 1899.—Editor.]

Unconscious Accouchements.—Sr. Guillermo Serra (*La Semana Medica,* May 10th; *Indépendance Médicale,* July 4th) says that unconscious accouchement is now admitted to be possible even in healthy women, sound in mind and body, and this fact must therefore be borne in mind in legal medicine. Among the most frequent causes are enumerated: multiparity of the woman, abnormally great pelvic dimensions, excessive development and exaggerated irritability of the muscular elements of the uterus, the absence of pains in the early period or even during the entire labor, as well as possible ignorance or misconception concerning pregnancy. In most cases several of these causes co-operate. A frequent factor is the sensation of an urgent need to urinate and defecate during labor, the efforts to satisfy this imaginary need at times inducing sudden accouchement without the woman experiencing any particular impression thereof. The author records a case of this character, in which one child was born in the night-chair, while a second was born immediately afterward on the patient getting to bed. The puerperium was normal. The case of the author's daughter is even yet more curious. She had conceived while suckling a previous child and did not experience any of the morbid symptoms usual in the early stage of pregnancy. She was quite unconscious of her condition. One night she summoned the author in consequence of abdominal pains which compelled her to keep her bed. The author prepared a calmative for her, returned home, but hardly had he arrived there when he was again summoned. The patient had pains in the genitalia, but before he could examine her the cry of the infant announced what had occurred. These unconscious accouchements must not be confounded with cases in which labor surprises the woman in the street or in a vehicle. The distinction between the two is of great medico-legal importance.

Suprarenal Extract in Diseases of the Nose and Throat.—Dr. W. H. Bates (*Annals of Otology, Rhinology and Laryngology,* February) says that he has used the extract for six years in 2,000 cases, more than 15,000 times in hospital and private practice in the treatment of diseases of the eye, ear, nose and throat. It has passed the experimental stage of a new drug with him, and he employs it without hesitation in all cases in which he wishes to relieve congestion of the mucous membrane.

In the preparation of the aqueous solution one part of the dried and pulverized gland of the sheep is mixed with ten parts of water. The mixture stands five minutes and is then filtered. The filtrate contains about one per cent. of the extract. The solution should be prepared fresh when needed. After three hours, at the ordinary temperature of the air, 70° F., the solution usually shows a change in color and that it has become less active. It soon becomes offensive from the growth of bacteria, and has under such circumstances caused infection of the eye and nose. He has not seen any bad results from the use of fresh solutions. The dried glands keep indefinitely and can be obtained from Armour & Co., Chicago, Illinois. The solution of the extract, when properly prepared, is of a light-brown color, and when applied to the mucous membrane of a normal nose will bleach it white in one minute. Sterile solutions of the extract, when protected from the daylight, are active after six months. Cold preserves the aqueous solution of the extract.

As a result of persistent efforts with very many drugs to prevent the solution of the extract from spoiling, the author finds that the activity of suprarenal extract is lessened by mixing it with other substances. It must, therefore, be used pure and quite freshly mixed. Physiologically it is found to increase the tone of all muscular tissue by direct action. Intravenous injection raises the blood pressure by contracting the peripheral arterioles. Therapeutically it is an astringent and nothing else. Symptoms caused by congestion are temporarily relieved. Headaches from nasal occlusion and pain in swallowing, due to congestion of the pharynx or tonsils, are benefited. The pain from some syphilitic and tuberculous ulcers has been relieved by its astringent effect. The examination of the nasal cavities is facilitated by its contracting effect upon hypertrophied turbinated bodies. For this the author considers it superior to cocaine, to which it has proved a useful adjuvant in cases in which cocaine does not secure complete anæsthesia. The application of the cautery is followed by greater benefit and with less reaction after its use. The reaction after operations is lessened. It assists in operating on "bleeders." It has been used with good effect in acute rhinitis, inflammation of the faucial, lingual and pharyngeal tonsils, in pharyngitis and laryngitis to control nasal hæmorrhage. It appears to have no objectionable qualities.

Changes in the Skin in Paralysis Agitans.—Dr. Robert Reuling (*Maryland Medical Journal,* March) discusses the recent additions to our knowledge of the pathology of paralysis agitans, and refers especially to the changes in the skin first described by Frenkel (*Deutsche Zeitschrift für Nervenheilkunde,* Vol. xiv., 1899) as follows:

"There is a well-marked palpable thickening of the skin, which, as a rule, has an irregular distribution. Frequently the skin covering an entire extremity will be found thickened, while the corresponding member of the opposite side will be normal in this respect, or show only a slight change. With this more diffuse thickening there are, as a rule, smaller areas where a more marked circumscribed thickening is felt. What is very striking is the adherence of the skin to the subcutaneous tissues, so that it may be impossible to squeeze it into folds in regions of the body where this is readily done in the normal state. The most marked change is seen on the forehead, though the skin of the extremities allows a better comparison to be made between the two sides of the body. The general appearance of the thickened skin hardly differs from the normal, so that only by careful palpation and comparison of folds of skin over symmetrically situated regions can the difference be detected. This procedure will also show the loss of elasticity in different regions, and the adherence of the skin to the subcutaneous tissues."

Frenkel believes that the neuralgic pains and various paræsthesias met with in this disease, and especially located in the extremities, can be best explained by these changes in the skin. In this the author agrees with him. He next reports the case of a single woman, aged fifty-nine. After examining six cases which show the typical clinical picture of paralysis agitans, and finding, to a variable extent, in four of these cases the skin changes described by Frenkel, he can only agree with this author so far as to say that such changes frequently occur in this disease. They will perhaps be found in the great majority of cases, but may be absent in cases otherwise in all respects typical examples of paralysis agitans. The absence of these changes would, as yet, not negative a diagnosis of paralysis agitans. Although the thickening of the skin occurs in regions where no tremor occurs, so that no direct relationship is demonstrated between the tremor and the skin changes, nevertheless the thickening is almost without exception more marked on that side of the body upon which tremor first appeared. He believes that these changes of the skin explain many of the clinical manifestations, especially the changes in facial expression, the frontal phenomenon of Motschutkowski, and to a certain extent the neuralgic pains and paræsthesias.

As to the cause of these changes, one can as yet only speculate. He does not agree with Frenkel that they are due to some toxic substance in the circulating blood, that the central nervous system may be only a secondary factor in this disease, and in explaining all the symptoms upon the conception of an idiopathic disease of the muscles and skin resembling the diseases due to altered metabolism, such as myxœdema and Graves's disease. These views have something in their favor, but paralysis agitans seems to him better explained by considering it a primary affection of the central nervous system, and regarding the thickening of the skin as a trophic phenomenon, directly dependent on changes in the nervous tissues, and the pathological changes in the muscles as also dependent on a disease of the central nervous system.

Puerperal Gangrene of Uterus.—Beckmann (*Zeitschrift für Geb. und Gynäkologie,* vol. xlii, 1900; *British Medical Journal,* July 14th) insists that the so-called "metritis dissecans" should be given the name which really explains it—"puerperal gangrene of the uterus." It is much more frequent than is suspected by living authorities, and, owing to the perfection of antiseptic and aseptic treatment in public lying-in establishments it is commoner in private practice where such treatment is not so easy to carry out. Beckman declares that diagnosis is easy, though our teachers say the contrary. The uterus enlarges from the beginning, and involution is completely checked. The discharge is characteristic, and so is the temperature range. Prognosis depends much upon the degree of infection and on complications, of which the most essentially fatal is perforation of the uterine wall. The mortality is 27.5 per cent. Uncomplicated cases usually recover. Restoration of uterine function depends much upon the amount of necrosis of tissue before the advance of the disease is checked. The endometrium is rarely regenerated, and if so, it is renewed from relics deep in the uterine wall. Puerperal gangrene is due to streptococcus infection. The germs run deeply and widely along the blood vessels and lymphatics and cause extensive thrombosis. It is this pathological change which causes the gangrene of uterine tissue. The gangrene in fatal cases proceeds without limit, in milder cases demarcation occurs and suppuration along the limiting line causes the expulsion of the sloughy tissue. Beckmann notes that in no less than fifty-two per cent. of all the cases which he has collected some obstetric operative measure had been undertaken before the complication occurred. Lingering labor is frequently associated with puerperal gangrene. Enteric fever certainly predisposes to it. In the parts of the uterine wall which escape necrosis Beckmann detected vacuolation of the muscle cells. As to treatment he emphatically states that intrauterine injections are contraindicated.

Pneumococcus Infection.—Dr. Frank Billings (*Western Clinical Recorder,* March) thinks that all recognized pathologists and clinicians are now agreed that Fraenkel's diplococcus is not only the cause but the only cause of lobar, croupous or fibrinous pneumonia, even though in perhaps 10 per cent. of the cases it may never be discovered. Pneumonia is an acute infectious disease, characterized usually by a local inflammation of the lung with an associated specific toxæmia. The lung manifestation is so frequent that the name pneumonia is still adhered to, but Dr. Billings thinks that the obsolete term "lung fever" expresses the pathological process much more clearly. It is a recognized fact that pneumonia may occur without pneumonitis. This is better expressed as a pneumococcus infection without any involvement. The infection may occur as a septicæmia or as a pyæmia alone, or as a septico-pyæmia. Many autopsies prove this. Toxæmia occurs in these cases, producing fever with disturbance of the cardio-vascular system, of the secretions and excretions and of the nervous and digestive apparatus of the body, as in ordinary pneumococcus lung involvement. This proves that the disease is an infection with local lesions, usually of the bowels and mesenteric lymph glands, associated with a peculiar toxæmia. In this it is analogous to typhoid and other infective fevers. Lung inflammation, pneumonitis, on the other hand, may be caused by many varieties of germs. Besides lung fever, "pneumonia," which is a pneumococcus pneumonitis, we may have streptococcus, staphylococcus, colon bacillus or typhoid bacillus pneumonitis and that due to other bacteriologic forms. Septic pneumonitis is not rare, and in the infectious diseases complicated with pneumonia the processes may be pathologically an infection with any one or more of the before named bacteria. The local signs, however, and the clinical phenomena of the different forms may be so much alike in the first days as to render diagnosis impossible, unless aid is afforded by the histological and bacteriological examination of the blood and pleural exudate. The author compares pneumonitis in this respect with cerebrospinal meningitis. The recognition of the type of pneumonitis is important in prognosis and therapy. The diagnostic clue will, the author thinks, be found in the study of the blood in comparison with the clinical course of individual cases. The author records some cases as examples of the general infectiousness of the disease to prove that the lung involvement is not always present and that pneumococcus infection of other portions of the body or of the blood may occur with or without lung involvement.

Hyperkeratosis Linguæ (Hairy Tongue).—Dr. J. L. Goodale (*Annals of Otology, Rhinology, and Laryngology,* February) says that this condition is seen to consist histologically in a papillary enlargement and small round-celled infiltration of the corium, together with protoplasmic reticulation, nuclear degeneration, and excessive keratin formation in the epithelium, the latter on its superior surface being prolonged upward to form filamentous processes, containing peculiar refractile pigmented granules, with which a characteristic bacterium stands in intimate association. It is of interest to note that the hypertrophy affects all layers of the mucous membrane and reaches its greatest development in the posterior and central portion of the dorsum. The condition appears to be primarily of the nature of a chronic inflammation with secondary alterations in the epithelial cells.

The Anti-malarial Influence of Lime.—According to the *Interstate Medical Journal* for June, a communication made to the French Academy of Medicine by Dr. Roché, of Toucy, on the disappearance of paludism in Puisaye, and the report of Dr. Laveran on the same subject, led Dr. Grellet to look up the literature on the anti-malarial influence of lime (*Revue d' Hygiène,* No. 8, 1899; *Public Health Reports,* May 11, 1900). The incorporation into the soil of a certain quantity of lime, used as a fertilizer, brought about the disappearance of malaria on the plateau of Chatillon-sur-Loing (Loiret). The fertilizing of the soil was resumed in 1824 on the plateau of Chatillon, after a long cessation, and has since been regularly carried on. In 1840 it was practiced on all the estates of the plateau, and from 1840 dates the disappearance of the fevers. It is said also to be a fact that in countries where lime forms the basis of the soil, malaria is not prevalent. This immunity finds its explanation in the agency of lime and in no other. This is the case with lower Egypt, which, with its periodical inundations, its marshes, high temperature, defective hygiene, etc., would appear to be a sort of promised land for malaria. Far from this being the case, however, Egypt has always been noted for salubrity.

The shores of the Loire and the Seine and their estuaries are nearly exempt from malaria. The same general immunity is enjoyed by Beauce, situated on calcareous soil, on the right bank of the Loire. The opposite bank, in the region of the Sologne, which is sandy and clayey and very poor in lime, is strongly affected with malaria, although it is much less damp than Beauce. On the channel coast of France the soil is calcareous and exempt from malaria. The basin of the Scheldt consists of clay and granitic formations. At its mouth clay alluvial deposits form, which condition is an incessant source of paludal malaria. On the contrary, the mouth of the Thames, which is directly opposite to that of the Scheldt and at only a short distance from it, is relatively free from malaria, in spite of the enormous pollution of the water. The water of the Thames comes largely in contact with calcareous deposits. Other examples can also be cited.

This report, says the *Interstate Medical Journal,* furnishes a clue for investigation along the line of the prevention of malaria. It is a fertile field for investigation. The matter has for its basis both practical and theoretical evidence. From this basis further experimentation may disclose a means of ridding the earth of the pestilential plasmodium.

Book Notices.

BOOKS, ETC., RECEIVED.

Cancer of the Uterus. Its Pathology, Symptomatology, Diagnosis, and Treatment. By Thomas Stephen Cullen, M. B. (Toronto), Associate Professor of Gynæcology in the Johns Hopkins University. With Eleven Lithographic Plates and over Three Hundred Colored and Black Illustrations in the Text, by Max Brödel and Hermann Becker. New York: D. Appleton and Company, 1900. Pp., xvi-693.

Clinical Examination of the Urine and Urinary Diagnosis. A Clinical Guide for the Use of Practitioners and Students of Medicine and Surgery. By J. Bergen Ogden, M. D., Instructor in Chemistry, Harvard University Medical School, etc. Illustrated. Philadelphia: W. B. Saunders & Company, 1900. Pp. 9 to 416. [Price, $3.]

A Manual of Personal Hygiene. Edited by Walter L. Pyle, A. M., M. D., Assistant Surgeon to Wills Eye Hospital, Philadelphia, etc. Illustrated. Philadelphia: W. B. Saunders & Company, 1900. [Price, $1.50.]

Histology of the Blood, Normal and Pathological. By P. Ehrlich and A. Lazarus. Edited and Translated by W. Myers, M. A., M. B., B. Sc., John Lucas Walker Student of Pathology. With a Preface by G. Sims Woodhead, M. D., Professor of Pathology in the University of Cambridge. Cambridge: The University Press, 1900. Pp. xiii-216. [Price, 5s.]

Atlas and Epitome of Gynæcology. By Dr. Oskar Schaeffer, Privatdocent of Obstetrics and Gynæcology in the University of Heidelberg. Authorized Translation from the Second Revised and Enlarged German Edition. Edited by Richard C. Norris, A. M., M. D., Consulting Gynæcologist to the Southeastern Dispensary and Hospital for Women and Children, etc. With 207 Colored Illustrations on 90 Plates, and 62 Illustrations in the Text. Philadelphia: W. B. Saunders & Company, 1900. Pp. 3 to 272. [Price, $3.50.]

Atlas and Epitome of Diseases Caused by Accidents. By Dr. Ed. Golebiewski, of Berlin. Authorized Translation from the German, with Editorial Notes and Additions by Pearce Bailey, M. D., Consulting Neurologist to St. Luke's Hospital and the Orthopædic Hospital, etc. With 40 Colored Plates, and 143 Illustrations in Black. Philadelphia: W. B. Saunders & Company, 1900. Pp. 11 to 549. [Price, $4.]

International Clinics. A Quarterly of Clinical Lectures and Especially Prepared Articles on Medicine, Neurology, Surgery, Therapeutics, Obstetrics, Pædiatrics, Pathology, Dermatology, Diseases of the Eye, Ear, Nose, and Throat, and other Topics of Interest to Students and Practitioners. By Leading Members of the Medical Profession throughout the World. Edited by Henry W. Cattell, A. M., M. D., Director of the Ayer Clinical Laboratory of the Pennsylvania Hospital. With the Collaboration of John Ashhurst, Jr., M. D., LL. D., and Charles H. Reed, M. D., of Philadelphia, and James T. Whittaker, M. D., LL. D., of Cincinnati. With Regular Correspondents in Montreal, London, Paris, Leipsic, and Vienna. Volume II. Tenth Series, 1900. Philadelphia: J. B. Lippincott Company, 1900. Pp. x-300.

The Retrospect of Medicine. A Half-yearly Journal Containing a Retrospective View of every Discovery and Practical Improvement in the Medical Sciences. Edited by James Braithwaite, M. D., Lond., Consulting Obstetric Physician and Surgeon to the Leeds General Infirmary, etc., and E. F. Trevelyan, M. D., Lond., B. Sc., M. R. C. P., Assistant Physician to the Leeds General Infirmary, etc. Volume 121. January-June, 1900. Issued July, 1900. London: Simpkin, Marshall, Hamilton, Kent & Co., 1900. Pp. xxv-442.

The Law in its Relations to Physicians. By Arthur N. Taylor, LL. B., of the New York Bar. New York: D. Appleton and Company, 1900.

The Thompson Yates Laboratories Report. Edited by Rubert Boyce and C. S. Sherrington. With Illustrations and Plates. Volume I. Reprints. Volume II. Reprints and Reports. 1898-1899. The University Press of Liverpool, 1900.

L'Année chirurgicale. Revue encyclopédique de chirurgie générale et spéciale. Publiée sous la direction du Docteur A. Depage, Agrégé a l'Université Libre de Bruxelles, etc. Premier fascicule. Bruxelles: Henri Lamertin, 1900. Pp. 672.

Die Heilfactoren Bad Nauheims. Fest-schrift zur Einweihung des am 7. März 1900 zu Tage Getretenen Kohlensäurereichen Thermal-Soolsprudels. Quelle No. XVI. Von Professor Dr. Schott, Bad Nauheim. Wiesbaden: J. F. Bergmann, 1900. Pp. 58.

The Illinois State Board of Health. Advance Notes of the Sanitary Investigations of the Illinois River and its Tributaries.

Medical Legislation in Nebraska. By H. Winnett Orr, M. D., of Lincoln, Nebraska. [Reprinted from the *Western Medical Review.*]

Differentiation in Diabetes. By F. W. Pavy, M. D., of London. [Reprinted from the *Lancet.*]

Erysipelas and its Treatment. By Albert E. Carrier, M. D., of Detroit. [Reprinted from the *Physician and Surgeon.*]

Constipation Considered from the Standpoint of the Proctologist. By A. B. Cooke, M. D., of Nashville, Tennessee. [Reprinted from the *Medical News.*]

A Study of the Rectal Valves, Experimental and Clinical. By A. B. Cooke, M. D. [Reprinted from the *Philadelphia Medical Journal.*]

Syphilitic Stricture of the Rectum. By A. B. Cooke, M. D. [Reprinted from the *Louisville Journal of Surgery and Medicine.*]

Voice-pictures, or the Wonders of Sound-force—Their Production and their Photography. By Dr. J. Mount Bleyer. [Reprinted from the *Eye, Ear, and Throat Journal.*]

Miscellany.

The Limitations of Agreements Not to Practise Medicine.—The *Journal of the American Medical Association* for July 21st says that it was alleged that a physician agreed to sell his residence house and lot in an incorporated town, and his practice as a physician, goodwill, and location in said town, and was, as it was averred, to turn over and deliver to the purchaser his location, good-will, and practise in the territory surrounding said town, and was never to practise as a physician at any time in said territory. Now such contracts, the Supreme Court of North Carolina holds, in Hauser *vs.* Harding, do not fall under the head of contracts for the restraint of trade, and are not, as such, contrary to public policy, and void. But, even so, it was argued that the contract was uncertain, both as to the time during which it was to continue and as to the territory over which it extended, and therefore void. Not exactly so, thinks the court. As to the uncertainty as to time, it says that it has heretofore held that where no time is mentioned in such contracts they are to endure during the lifetime of the grantor. Yet the language of that part of the contract which undertook to restrain the purchaser from practising medicine outside the town mentioned, it states, was not sufficiently definite to mark and define any certain territory. Wherefore, taking the limits of the incorporated town as well defined, but the reference to territory surrounding it being too uncertain to be capable of being marked out or identified, the court holds that the seller should be enjoined and restrained during his life from practising medicine within the corporate limits of said town, but that for uncertainty the contract could not be enforced as to the so-called surrounding territory.

Autopsy on King James I.—Mr. Jonathan Hutchinson, F. R. S., in his *Archives of Surgery* for April, says that in the Harleian Manuscript 383, there is a copy of a letter from a Mr. William Neve to Sir Thomas Hollande, concerning the embalmment and bringing to town of the body of King James. The writer says, "The King's body was about the 29th of March disembowelled, and his heart was found to be great but soft, his liver freshe as a young man's, one of his kidneys very good, but the other shrunke soe little as they could hardly find it, wherein there was two stones. His Lites and Gall, blacke: judged to proceed of malancholy. The semyture of his head so stronge as they *could hardly breake it open with a chesill and a sawe;* and soe full of braynes as they could not upon the openinge keepe them from spilling: *a great marke of his infynite judgement.*"

The Hygiene of the Church.—The *Echo Médical du Nord* for July 15th says that the bishop of Fano, Monsignor Vincent Franceschini, interested by the experiments of Dr. Abba upon the micro-organisms contained in the holy water of churches, has sent a special circular to the curés and rectors of the churches in his diocese. After explaining the reasonableness and propriety of the principles involved, and their perfect conformity with religious truth, he recommends the following measures: 1. In all churches, immediately after feast days in which there has been a great concourse of people, disinfection of the pavement by means of sawdust impregnated with a 1 in 1000 solution of corrosive sublimate is to be effected. In ordinary times frequent sweeping is ordered, after sprinkling the pavement with water so as to avoid the raising of much dust. 2. Each week, and even oftener, the seats and confessionals are to be wiped down with wet sponges and cloths moistened in clean water. 3. Each week, or even oftener if necessary, the gratings of the confessionals are to be washed with lye and then polished. 4. The holy water basins are to be emptied every week, or oftener if necessary, then washed with boiling lye, which may be advantageously replaced by a solution of corrosive sublimate, 1 to 1000.

In order that the desired object may be attained, there has been instituted by ecclesiastical authority a service of inspection as well as pecuniary penalties payable to the benefice of the church by all those who transgress the prescribed hygienic practices. It is to be hoped, says the *Rassegna di interna medica moderna,* from which the *Echo* quotes, that the initiative of the bishop of Fano will be imitated by all bishops, who ought to have at heart, as well as the safety of the souls, that of the bodies of the faithful.

The Sacred Importance of the Pregnant Woman.—The *Interstate Medical Journal* for July says editorially that each pregnant woman should become the honest concern of the most sincere consideration of every nation, State, or individual man. If mental impression upon the bearing woman blesses or curses progeny, is not this a factor to which even the grandest statesman that earth ever saw should eagerly and willingly give his highest and best consideration? At the risk of being considered a dreamer, the writer maintains that any woman who becomes pregnant should at once become the deep concern of State and community and individual. Laws should be devised so that surroundings may be arranged in their most beneficent manner to influence a coming mentality. If possible, *no woman should be permitted to bear children amidst surroundings of squalor, vice and want.* There is every reason for this, since from such course must come a bettering of elements in forthcoming progeny. Let it be a dream, still it is a dream which ennobles and refines the soul and fills it with the highest hope of humanity, mercy and progress. Instead of endowing universities, educational institutions, etc., with millions on millions, give some of these millions so as to take from want, squalor and crime their influence on the forming soul; for from age upon age it has been indicated to us that vice obtains its deepest perpetuity because the pregnant woman becomes a slave to her environment, and in her most impressionable period stamps upon her coming progeny the reflex of vicious surroundings. Man eternally must have the full force of cursed viciousness perpetuated just so long as cursed viciousness in surroundings is not corrected. It would pay the State, it would pay each individual soul in far nobler, grander and more humane benefits to make the pregnant woman the kind object of consideration by surrounding her with all that suggests purity, kindness and humanity.

We know that woman as at present situated will continue to bear children subject to the influence of her surroundings. Ages have demonstrated this, and it is as fixed as life itself. The foundation of every State must consist in the education of its youth. With the formation of the child *in utero* the State's concern should begin, since this is the most impressionable period in life. If the fate of a nation ultimately depends upon the strength and health of its population, then certainly the nation's care should start at the very commencement of existence.

The Mongoose as a Snake Killer.—The *Indian Lancet* for June 16th, on the authority of Dr. R. H. Eliot, of the Indian Medical Staff, says that an important factor in discussing the protection enjoyed by the mongoose is the nature of its diet, for it is almost exclusively carnivorous in the wild state, though in captivity it will eat fruit and vegetables readily. Professor Fraser has shown reason to believe that the habitual injection of animal food increases the resistance of even an herbivorous animal to snake venom; it therefore seems advisable to compare the mongoose with a carnivorous animal, and a ready type is found in the dog.

One thing at least is quite clear, and that is, that we must look beyond the mongoose's food if we wish to find a valid explanation of the source of its partial immunity to snake poison. In order to obtain light on the subject, Dr. Eliot has closely watched fights between wild mongooses and untamed cobras, and has also been at pains to collect reliable information on the subject from others who have witnessed similar combats. The first thing that strikes a spectator, in these contests, is the absolute indifference the mongoose exhibits in the presence of a snake, even after it has had one or two scrimmages with the reptile; the cobra, on the contrary, is "all there"; it raises its hood, follows every movement of the mammal and hisses almost without interruption.

As a rule both animals evince a strong desire to avoid a fight, but there is the greatest difference between the casual conduct of the mongoose and the lively terror exhibited by the cobra. It would, however, be a great mistake to suppose that the former animal for a moment forgets the presence of a dangerous foe, for it will dart out of the way of a sudden stroke with a combined agility and aplomb that are astonishing. When the little carnivor finds that it cannot get away, it seems suddenly to catch sight of the reptile; it then approaches slowly and stealthily, watching every movement its adversary makes, and never allowing its eyes to leave the snake's head; now begins the "open phase" of the fight, in which the cobra's lunges are either evaded by swift backward springs, or "countered" by a sudden dash forward which results in the mongoose seizing the snake's head in its open jaws. The rapidity of this latter manœuvre is almost incredible, unless one has witnessed it. A very noticeable point is that the mongoose *always makes for the snake's head.* Dr. Eliot has never seen it attempt any other grip, and very often one finds the jaws of the two animals interlocked. It then looks as if the mongoose must certainly be severely bitten, but that this is not the case is often shown by the result of the fight. There is something in the grip which prevents the cobra from injecting any great amount of venom; in one case, the author found that the snake's fangs had been snapped off short by the carnivor's teeth, and in several instances he satisfied himself that these bladed teeth had transfixed the venom sacs, doubtless giving free exit to their contents, and rendering them useless, thus putting the poison apparatus *hors de combat.* There would seem to be but little doubt that under such circumstances venom must have found its way into the mongoose's mouth and so down its throat. Such a grip as is described may be only momentarily held, in which case open sparring is resumed, or the mongoose may hold on, bull-dog fashion, till the snake succumbs. It is a gruesome sight to see the two animals rolling over and over in a merciless death grip, the snake writhing with pain while it enfolds the little mammal in its coils, the mongoose maintaining its hold with a courage that only death can damp.

After watching a number of such fights as have been described above the author feels justified in drawing the following conclusions: (*a*) that during the open phase of a fight, a mongoose is likely to receive incomplete bites, in which only very small quantities of venom are injected into its body; (*b*) that when the mammal seizes the snake's head in its mouth and drives its bladed teeth through the poison sacs, the escaping poison must often pass down its throat and be swallowed; (*c*) that in both of these ways it is likely that a gradual immunizing process takes place—a process which is kept up through successive generations, so long as the animals are in constant contact with poisonous snakes, but whose effect dies away should the mongoose be transported to a country in which the thanatophidia are distinguished by their absence.

A Fatal Coitus.—*Lyon Médical* for July 8th quoting from the *Aertzliche Sachwerstaendigen Zeitung*, 1900, No. 4, records the case of a woman in the ninth month of pregnancy who had intercourse twice in succession in a standing position. After the second time she cried for help, losing a large quantity of blood by the vagina. Twenty minutes later she died. At the autopsy a rent measuring two centimetres in length and half a centimetre deep was found below and a little to the right of the clitoris. It had encroached upon the wall of the urethra and the right corpus cavernosum of the clitoris. The bottom of the rent was occupied by blood clots and small gaping vessels.

The Physicians of the Lake Keuka Region.—The second annual meeting will be held in Lake Keuka, N. Y., on Tuesday and Wednesday, August 14th and 15th. The programme includes the following titles: The Surgical Treatment of Appendicitis from the Standpoint of a General Practitioner, by Dr. Henry Flood, of Elmira; A Visit to some Hospitals in Paris and London, by Dr. B. R. Wakeman, of Hornellsville; The Physician and the Army, by Dr. J. P. Smith, of Bath; Aseptic Urethral Instrumentation, by Dr. Ferd. C. Valentine, of New York; The Management of Placenta Prævia, by Dr. J. G. Kelley, of Hornellsville; The Eye in Autointoxication, by Dr. John A. Spengler, of Geneva; Infantile Diarrhœa, by Dr. William B. Clapper, of Farmington; Auto-intoxication in Acute Infectious Diseases, by Dr. D. A. Eiseline, of Shortsville; The Porro-Cæsarean Operation—a Report of Two Cases, by Dr. A. L. Beahan, of Canandaigua; The Cæsarean Operation—a Report of a Case, by Dr. T. A. Dundas, of Elmira; Diet in Typhoid Fever, by Dr. J. H. Pratt, of Manchester; The Relation of Systemic Disorders to Chronic Catarrhal Deafness, by Dr. S. F. Snow, of Syracuse; The Persistency of the Diphtheria Bacillus, and Certain Methods Used in Handling Epidemics of Diphtheria, by Dr. W. Austin Macy, of the Willard State Hospital; Pelvic Reflexes, by Dr. W. A. Howe, of Phelps; The Pathology, Diagnosis, and Suggestions for the Eradication of Bovine Tuberculosis, by Dr. Veranus A. Moore, of Cornell University; Our Nervous Patients, by Dr. C. R. Bowen, of Almond; A Study of Emotional Shock, by Dr. T. A. Wales, of Elmira; Details in Preparing Patients for Operations outside of Hospitals, by Dr. Lewis W. Rose, of Rochester; Specialists *versus* the General Practitioner, by Dr. L. M. Phillips, of Penn Yan; Medico-legal Jurisprudence, by Dr. M. B. Hubbs, of Addison; Osteopathy, by Dr. E. J. Carpenter, of Corning; Pneumothorax, by Dr. M. L. Bennett, of Watkins; The General Consideration of the Ætiology of Eczema, by Dr. George Conderman, of Hornellsville; The Medical Treatment of Appendicitis, by Dr. L. B. Smith, of Hornellsville; Organic Therapy as Applied to Gynæcological Therapeutics, by Dr. H. P. Jack, of Canisteo; The Medical Side of Appendicitis, by Dr. W. E. Palmer, of Hornellsville; The Objects and Aims of the Corning Medical Association, by Dr. W. S. Cobb, of Corning; A Report of Additional Cases of Fractures Treated without Splints, by Dr. C. S. Parkhill, of Hornellsville; and Skin Diseases and Syphilis, by Dr. Grover W. Wende, of Buffalo.

Prolapse of the Uterus in Young Girls.—In the *British Medical Journal* for July 14th Dr. Thomas Oliver, of the Royal Infirmary, Newcastle-on-Tyne, reports an example of procidentia uteri in a young girl, and mentions one recorded by Dr. J. D. Duncan in the same journal for February 18, 1899. Dr. Duncan's patient was sixteen years old, a nulliparous domestic servant. Dr. Oliver's case was that of a healthy-looking girl, aged seventeen, who came under his care on November 7, 1899, complaining of a "fall of the womb." At the age of thirteen she went into domestic service. The family consisted of six, there being four grown-up sons. The wife was an invalid, and was confined to bed. The patient had to do the housecleaning, cooking, washing, and waiting upon her mistress. The work was very heavy, frequently continuing from 7 A. M. until 11 P. M. Despite this she remained in her situation for two years and a half. After being three months at service she began to menstruate, and some little time afterward experienced uneasy sensations in the lower part of the abdomen. At the age of fourteen she felt a swelling in the vagina which all but protruded through the orifice. This remained very much the same until nine months before her admission, when after she had put in a load of coal the mass appeared outside the vulva. Menstruation was regular for the first few months, when it ceased altogether without any apparent cause or injury to health, and was absent for nearly a year. After that it was regular, the loss being rather considerable. There was no trouble with the bowels or bladder other than the inconvenience and sense of dragging associated with the procidentia. The uterus projected three inches beyond the vulva; the os was well defined; the mucous membrane of the cervix was dry and wrinkled, and there was a small ulcer just to the right of the entrance into the womb. She was able to replace the uterus herself, but it came down again when she began to walk about. The sound, while slightly caught at the internal os, passed into the uterus in a backward direction to half an inch beyond the bend. After the uterus had been replaced the vagina was found to be extremely roomy, capable of receiving a large-sized apple. Lying in Douglas's pouch on the left side could be felt a rounded body, tender on pressure, apparently a prolapsed and enlarged ovary. There were no signs of hernia. The right kidney was slightly enlarged and mobile. The heart and lungs were healthy. The girl was cured by means of ventrofixation of the uterus.

The patient had been exposed to great drudgery, as may be inferred from her being required to put in a load of coal. These cases emphasize the iniquity of imposing such burdens on young girls.

The Plague in London and Hamburg.—According to Press dispatches there have been four cases of plague, with two deaths, in London. The diagnosis was confirmed by bacteriological methods. No spread of the disease is feared, but the Marine-Hospital Service at Washington is fully alert to all requirements. Press dispatches dated Aug. 6th also announce a case of bubonic plague in Hamburg harbor. All possible precautions have been taken.

Health in Michigan in July, 1900.—In the *Monthly Bulletin of Vital Statistics*, soon to be issued by the State Department, the report of the secretary of the State Board of Health relative to sickness statistics will show that in the month of July, 1900, compared with the average July in the ten years preceding, sickness from measles, scarlet fever, and typhoid fever was more prevalent, and from remittent fever, intermittent fever, and inflammation of the bowels it was less prevalent than usual in the State.

Aid Wanted for the Floating Hospitals of St. John's Guild.—The *New York Times* for August 3d says that the floating hospitals of St. John's Guild have carried during the month of July 31,206 children and mothers, and the seaside hospital has given 9,209 days of treatment. Much severe illness among the babies and small children has marked the service in all three hospitals, and applications for admission are in no way decreasing. In order that this life-saving service may not be discontinued, immediate financial aid is necessary. The trustees of the guild therefore appeal to the public for assistance. Checks should be sent to Mr. William T. Wardwell, Treasurer, 501 Fifth Avenue.

Triplets and Taxes.—According to the *New York Times* for August 2d, an immigrant recently endeavored to conceal his triplets at the Barge Office. Every one knows that triplets are a tax upon their parents, but this couple feared that there would be a tax upon the triplets.

Experiments with the Milk of Tuberculous Cows.—According to the *New York Times* for August 2d, the tuberculosis committee of the state board of health is at present conducting experiments with the milk of a tuberculous cow. This milk is being given to rabbits, which animals are also being inoculated with it. Besides the rabbits, some guinea pigs will be inoculated with the milk of the tuberculous cow, and also with human tubercle bacilli, and the result carefully noted. By these experiments it is hoped to ascertain whether the milk from a diseased cow will carry the disease into any animal.

An Institute of Psychical Science at Paris.—According to the *Progrès Médical* for July 14th a society has been formed for the scientific and experimental study of psychical phenomena. The Institute has for its aim, 1. To provide its premises with laboratories furnished with the necessary apparatus, biometers, magnetometers, spectroscopes, recording instruments, photographic appliances, etc.; 2. To seek and remunerate for subjects; 3. To establish a periodical organ recording experiments and observations with their results and of the work of all collaborators whom these studies interest.

Mr. Van Alen on the British Hospitals in South Africa.—The *New York Times* for August 3d quotes from the *Providence Journal* the account of an interview with Mr. Van Alen who has recently returned from six months' charge of his field hospital which was attached to Lord Methuen's division. Referring to the medical work in the field Mr. Van Alen said that their hospital was under light fire twice during the time they were in the field—not serious, but enough to prevent them from seeing the bullets stirring up the dust around them. Even then they were in the neighborhood of 2,500 or 3,000 yards in the rear of the British firing line. Of course their efficacy was gone if they took a position where the enemy's bullets could reach them, as it was their duty to keep out of danger themselves and take care of the men who fell victims to the dangers which lay at the front. So they were usually about 2,500 yards, about a mile and a third, back of the firing line. Mr. Van Alen foresaw before he reached Africa that they should have difficulty in getting the supplies necessary for the care of sick and wounded soldiers, so he took with him everything they needed.

From Cape Town these supplies were transported on a special train which was provided for the hospital, so they did not suffer for lack of the necessaries at any time. The greater number of patients treated in the hospital were those who fell sick from the prevalent diseases. The fifty or sixty wounded men they treated were a very small percentage of the whole number of patients. Typhoid fever and dysentery were worse than Boer bullets. At Bloemfontein it was well-nigh impossible to get water when they arrived there, because the enemy had blown up the waterworks in order to embarrass the British. In other places it was much the same—a scarcity of water and a very poor quality of water when it was obtainable.

There had been many and severe criticisms, said Mr. Van Alen, of the way in which the sick men were treated, especially in the past month. There was considerable foundation for them, no doubt. Mr. Burdett-Coutts, a member of the House of Commons, had written a series of articles in which he arraigned in scorching terms that department of the British Government whose duty it was to look after the hospital work. It had been said in England that he wrote these for the sake of the sensation they would make, and that he was a man who was fond of a sensation, but Mr. Van Alen came from Cape Town on the same boat with Mr. Burdett-Coutts and he would say that he seemed very honestly indignant at what he had seen in Africa. Perhaps Mr. Van Alen might have felt the same had he had the same interest in the men and their treatment, but as he was there solely on humanitarian grounds, it was not to be expected that he would take the matter to heart quite as keenly as the member of the House of Commons. Yet he saw many things which were not as they should have been. It seemed to him that the Government had not been prepared for the great outbreak of sickness. The epidemic of typhoid fever had not been foreseen, hence there were not the supplies necessary for the treatment of the sick men, or the hospital corps to take care of them.

On the other hand, the reason for their neglect in certain instances might have been that more attention was given to those who remained well, with the view of keeping them on their feet, whereby the sick suffered from neglect. He did not go to the Spanish-American war, as it was so soon ended, but from what he had heard and read of the treatment of the men at Santiago, he imagined that the British Government had the better of the argument. He believed it was generally understood that the sick and wounded were shamefully neglected at Santiago.

Probably they were in isolated cases in South Africa, but, on the whole, they were as well taken care of as was to be expected, when all the circumstances were taken into consideration. Of course, however, Great Britain, which had been at war more or less for many years back, should have been better prepared for such a crisis than a country which for more than a quarter of a century had enjoyed an undisturbed peace, to be plunged into war suddenly at the end of it.

Mr. Treves on the Conditions of Success in Medical Practice.—Mr. Treves, who has recently jumped from fame into notoriety, in presenting the prizes to the students at the opening ceremony of the additions to the London Hospital Medical College recently, made some excellent remarks which are worth reproducing as cited by the *New York Times* for August 3d from the *London News.* Mr. Treves said that as a student he was signally undistinguished. The idle student was about to present prizes to the industrious students. His sympathies a little went out to his own clique—the idle, unsuccessful majority. He suffered a good deal by the advice tendered to him to mend his ways. He was talked to by persons supposed to have a moral influence with youth, and he had a somewhat bad time. One mentor gave him a copy of Hogarth's Idle and Industrious Apprentice series, which was expected to have a good effect upon him. He was impressed by the fact that the idle apprentice seemed to have an exceedingly good time, passing through exciting periods and going to sea, whereas the existence of the industrious apprentice seemed to be one of unmitigated dullness. When the former reached about the time of life to which he (Mr. Treves) had now attained, he had the misfortune to be hanged at Tyburn, whereas the latter, at the same period, became Lord Mayor of London. It was hard to say in which direction one's sympathies ought to go, and which end was to be preferred. One of the most encouraging remarks made to him at the commencement of his career fell from the then consulting surgeon of the hospital. Referring to a surgeon then enjoying great fame, he said: "I don't see why you should not do as well as he has done, because at your age he was a perfect fool." That made him extremely happy. Unsuccessful students often used arguments that he hoped to be able to confute. One was, "I can't get on; I have no luck." So far as their profession was concerned, there was no such thing as luck. Luck meant that a man was ready for a certain chance when it came along.

The same circumstances befell twenty men, but only one was prepared to take advantage of them. Some students complained that they had no genius. Genius, he supposed, was some sort of neurosis—an uncalculated nervous disease. The few men of genius he had met had been exceedingly impossible persons. They would certainly be entirely out of place in the medical profession, where even cleverness was not to be encouraged. Indeed, of all desperately dangerous persons, the brilliant surgeon was the most lamentable. Cleverness found its proper field, not in the operating theatre, but at the Egyptian Hall. Again, it was said: "I cannot succeed; I have no influence." No person succeeded better than the man who stood entirely upon his own feet, depending on no one to assist his progress. The absence of means was another ground of lamentation; but the men who had succeeded most conspicuously were the men who started on nothing. The things that made for progress were difficult to define. Hard work came first. Then there must be close observation. Of course, too, a man must know his profession. As Sir William Jenner put it, "He must be in a position to be dogmatic." There were two classes of dogmatic persons—those who knew everything and those who knew nothing of a subject. Again, a man must be kind. It was not kind to blurt out to a lady the news that she had a malignant disease. The last quality he would mention as necessary to a successful medical man was honesty, and it could not too emphatically be laid stress upon. The late Sir Andrew Clark was a man who had no knowledge of dullness, and an infinite capacity for work. He was a particularly shrewd observer, amusing in his dogmatism, a man than whom none had a kindlier heart, and almost pedantically honest. Sir Andrew started without money, friends, or influence, and he rose to the highest position in his profession.

THE NEW YORK MEDICAL JOURNAL, August 18, 1900.

Original Communications.

CONGENITAL DISLOCATION OF THE SHOULDER,

WITH REPORT OF A CASE.*

By JOHN LINCOLN PORTER, M. D.,
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Congenital dislocation of the shoulder is so rare, and there is so little literature on the subject, that we are always interested in new cases of this deformity. The rarity of its occurrence is shown by Kronlein's collection of ninety-eight cases of different congenital dislocations from von Langenbeck's clinic, of which five were of the shoulder, while ninety were of the hip, two of the head of the radius, and one of the knee. The displacement is in the large majority of cases subspinous. Two or three have been reported as supra-acromial, and a few, especially those associated with paralysis, are described as subcoracoid. But the description of most of the undoubted congenital cases places the head of the humerus just posterior to the normal situation of the glenoid fossa below the junction of the acromion process with the spine of the scapula. We still have to turn back to 1839 to Smith's classical description of the cases of the lunatic women for the pathology of the condition. I have photographed his plates of the Doyle case, as they show the condition in a subspinous dislocation in an adult of forty-two years. They are interesting as being the only illustrations of the condition extant. In this case "there was no trace of a glenoid cavity in the natural situation, but upon the external surface of the neck of the scapula was a well-formed socket which received the head of the humerus. It was . . . covered with cartilage and surrounded by a perfect glenoid ligament. The capsular ligament was perfect. The tendon of the biceps muscle arose from the most internal part of its superior extremity. The scapula was smaller than natural and its muscles badly developed. . . . The head of the humerus . . . was of an oval or oblong form, somewhat broader above than below; its anterior half alone was in contact with the glenoid cavity. This portion was covered with cartilage, the remaining half being rough and scabrous and totally destitute of articular cartilage. . . . The lesser tubercle was elongated and curved, forming a most remarkable process; it was an inch in length, and bore some resemblance to the coracoid process. At its root it presented a smooth, convex, pulley-shaped surface, round which passed the tendon of the biceps muscle." There is no doubt that some, and perhaps a large proportion of the cases of this deformity, are due to traumatism at the time of birth, and in studying the subject, especially with a case at hand, one is struck with the necessity of differentiating these traumatic cases from those due to imperfect development. It is necessary because of the great difference in prognosis and the different lines of treatment indicated. It is also very difficult on account of the impossibility to palpate the deeper structures on the joint accurately enough to determine their exact condition. I believe Scudder has called attention to the one point of difference between these two classes upon which a differential diagnosis can be made, when he says that in cases due to imperfect development of the articular surfaces there will also be a difference in development between all the bones of that extremity and the normal one. If we make due allowance for the difference due to paralysis when it coexists, and to disuse in the older cases, I think we shall find this point worth more than any other in deciding the class to which the case belongs.

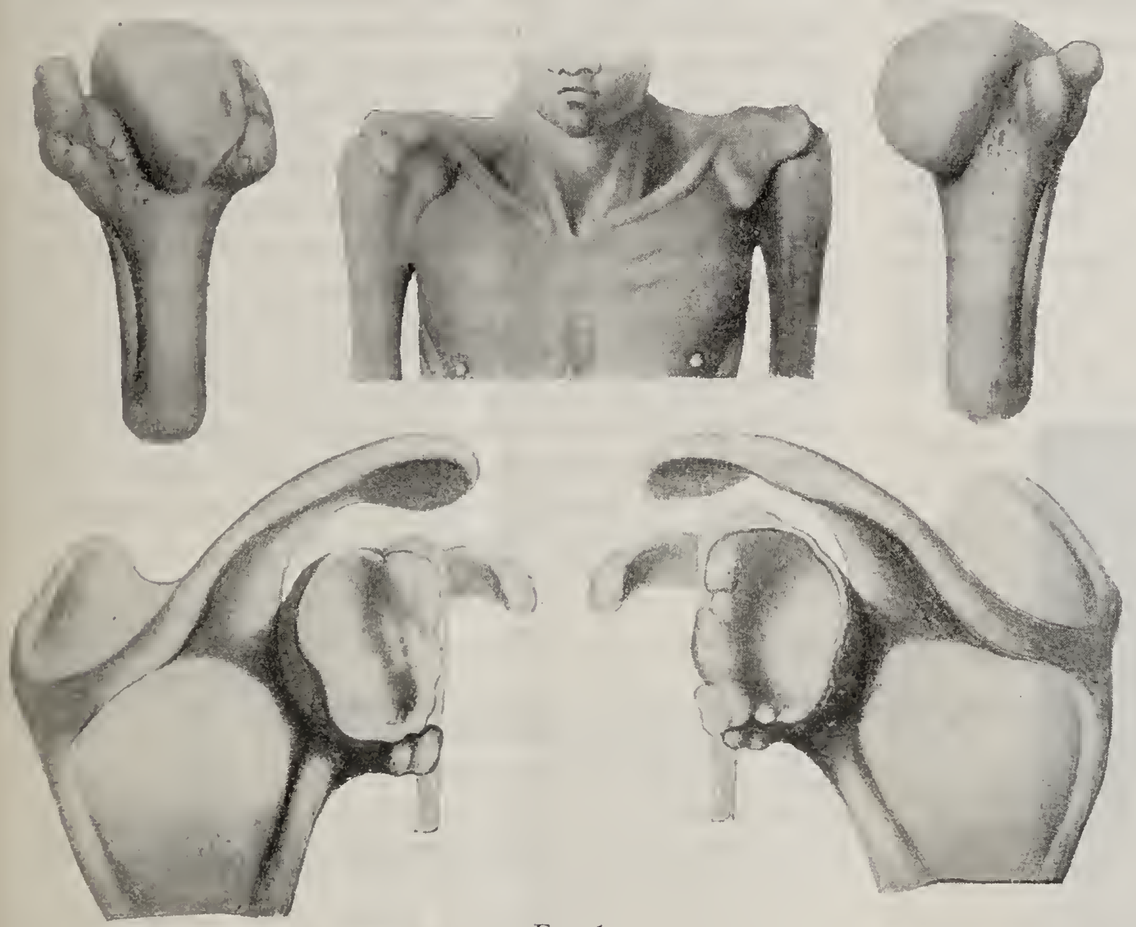

Fig. 1.

The various peripheral palsies of the arm, especially the so-called "obstetrical paralyses" due to injury of the cervical nerves at birth, may be confounded with congenital dislocation. The only resemblance between the two conditions is the position in which the arm is held. The paralysis *without* dislocation, and the fact that, as the trouble dates from birth, there would be no difference in development of the two extremities, should make the differentiation easy. Then, too, the great majority of the paralytic cases tend to spontaneous recovery while the dislocations persist.

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* Read before the American Orthopædic Association, Washington, D. C., May 3, 1900.

We also have as an aid in diagnosis the x ray with fluoroscope and skiagram: but x-ray pictures are sometimes misleading and liable to misinterpretation, so we can not depend upon them as positively as had been hoped. Fig. 2 shows a skiagram of the following case:

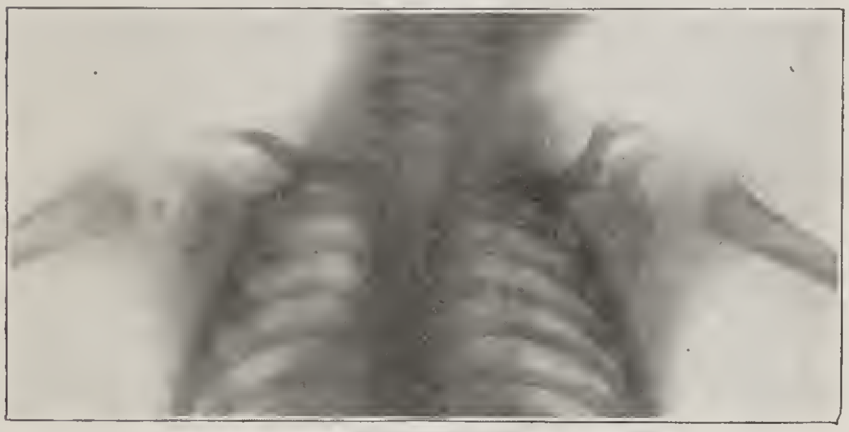

FIG. 2.

W. S., a boy, four months old. First seen in November, 1899. History: Three older children, all perfectly formed. Labor with this child was not hard, and head presented, but labor was terminated with the aid of forceps after four hours, because of the haste of the physician to go to another case.

Three days later the nurse noticed that the infant held the arm very still and in a peculiar position. It was examined by the physician, who said it was all right, except that it was paralyzed a little as a result of pressure during birth, and advised electricity. This was applied for six weeks without apparent benefit. At the age of two months he began to move his hand and forearm somewhat. Two months later, when I first saw him, condition was as follows: Right arm held abducted, slightly flexed, and rotated inward. Hand and forearm kept moving constantly, but humerus moved voluntarily very little. Hand has apparently as strong a grasp as the left. Passively the elbow can be completely flexed; pronation of the forearm is normal; supination impossible, except to a very slight degree. The humerus can be adducted a little, but not carried across the chest; abduction is more free, but the arm can not be carried quite to horizontal. Slight flattening of the shoulder anteriorly and slight prominence posteriorly under the outer end of the scapular spine. With rotation of the arm this prominence is felt to move under the fingers, and is evidently the head of the humerus. With considerable traction it could be moved forward a little toward the glenoid cavity, but could not be replaced in its normal position. Without examination under anæsthesia, and considering the history, I was inclined to regard it as a traumatic dislocation, as was also Dr. Ridlon, who saw the case later. This opinion was strengthened by the skiagram, as the neck and glenoid fossa seem to be equally developed on both sides.

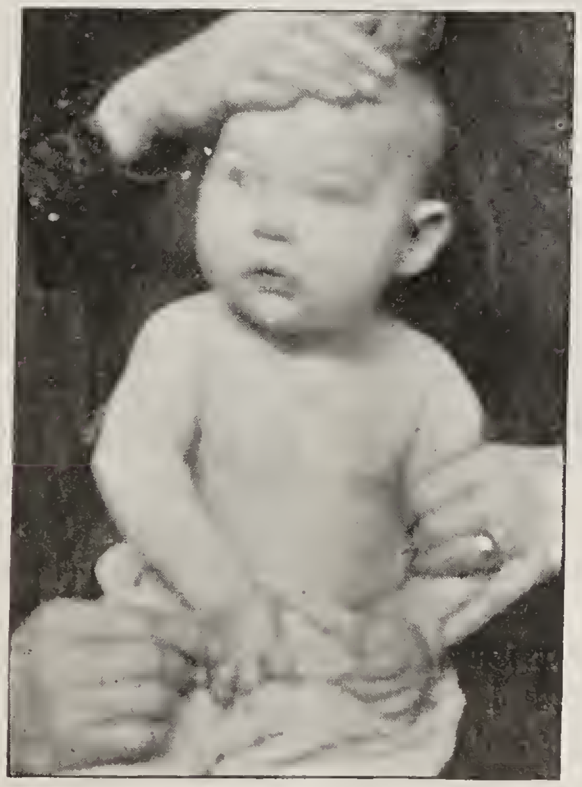

FIG. 3.

On February 8, 1900, the patient was anæsthetized and reduction undertaken. The arm could then be moved freely in all directions except outward rotation, and after a few moments' traction the head could be pulled forward and was distinctly felt to slip over what was supposedly the edge of the glenoid cavity and under the acromion, but, when released, it went back again to its former position. It was again reduced and held in that position while a plaster cast was put on enveloping the chest and arm to the wrist, the arm being abducted and rotated outward, the elbow flexed, and pressure made posterior to the humeral head while the plaster was hardening. After three weeks, when the cast was removed, there was a tendency to recurrence as soon as the arm was moved. It was again put up in the same position and kept for three weeks, and again it tended to relapse when the cast was removed. This procedure was repeated, and again it would not stay in place. I then left the cast off for a week and sent the case to Dr. Mettler for examination for electrical reaction of the muscles. He reported that there was no evidence of any paralysis. I then made careful measurements of the bones of each extremity, as suggested by Scudder, with the following results:

	Right.	Left.
	Centimetres	Centimetres
Acromion to external condyle of humerus	11	12½
Acromion to inferior angle of scapula........	7½	8
Length of clavicle......	5¾	6
Length of radius...........	8¼	9
Length of ulna.............................	9½	10
Circumference of arm at deltoid insertion....	13	10

From these findings I decide that the case is one of true congenital misplacement; that the reason reduction is not permanent is either because the posterior border is absent, as noted by Phelps in his cases, or possibly the glenoid cavity is absent, as shown in Smith's case, and, if so, the head of the humerus may have made for itself a new articular facet posterior to the normal situation; and if surrounded by glenoid and capsular ligaments, as noted in Smith's case, these also act as opponents to reduction.

In 1890 Scudder (1) said there were twelve cases reported. Looking up the literature from that time I find sixteen more to which I append references. Counting my own, then, we have twenty-nine cases. In at least one half of these there is doubt as to their being true congenital misplacements. What has been done as to treatment? Gaillard's (2) case was reduced by intermittent traction for three weeks, with sixteen pounds weight, and reduction persisted after two years. Kuster (3) operated upon one case, which died. Scudder (4) has reported four cases; no treatment. Robinson (5) showed two cases in London in 1893, but reported no treatment.

Eve (6) operated in one case in 1895, good result, but operation proved the case to be probably traumatic.

Phelps (7) reported one operation in 1895 with good result, and refers to two others, the results of which he has never reported. The condition of the joint in the first case suggests that it may have been an early traumatic dislocation with fracture of the glenoid fossa.

Lewis (8) reports one case, suprascapular, infant, eleven months old, which was evidently traumatic, easily reduced under anæsthetics, and kept in place.

Stimson (9), in his last edition of *Fractures and Dislocations,* reports three cases—one operated upon, no result stated, as the case was lost sight of; in two, no treatment. In all his cases he noticed the bones of the affected extremity were smaller than those of its fellow. In the patient operated upon the glenoid fossa was smaller than normal, but present.

Scudder (10) refers to a case of traumatic dislocation in a child eight months old, operated upon by Stone, of Boston, with slight improvement.

We have, then, one case of possibly congenital dislocation, and one undoubted traumatic, reduced and retained. Three cases operated upon with good result, and one without improvement, and three in which results are not reported. All the rest have either had no treatment or it has been unsatisfactory.

From the above review I think we may draw the following conclusions:

1. It is of fundamental importance to discriminate between traumatic and developmental cases.
2. The pathology of the congenital cases is not sufficiently known to indicate the most promising line of treatment.
3. Sufficient operations have not been done to establish a successful method of operative treatment or add much to our pathological knowledge.
4. In cases determined to be developmental by the history and measurements, remembering the probable deficiency of development of the one, or both articular surfaces, an early operation, before the humeral head has formed a new articular facet under the spine and has itself become deformed, offers the best results.

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1. Scudder. *Archives of Pædiatrics,* April, 1890.
2. R. W. Smith. *Fractures and Dislocations,* 1847, p. 569.
3. Kuster. *Chirurg. Biennium,* 1882, p. 256.
4. Scudder. *Am. Jour. of the Med. Sciences,* February, 1898.
5. Robinson. *Lancet,* 1893, i, p. 475.
6. Eve. *Trans. of the Clin. Soc.,* London, 1895, p. 299.
7. Phelps. *Trans. Am. Orthopædic Assoc.,* 1895.
8. Lewis. *Med. News,* Phila., 1895, p. 183.
9. Stimson. *Fractures and Dislocations,* 1899, 592.
10. Scudder. *Loc. cit.*

A STUDY OF THE

ACTION OF GELSEMIUM UPON THE NUCLEI OF THE MOTOR CEREBRAL NERVES.

By R. H. WHITEHEAD, M. D.,

CHAPEL HILL, N. C.

Whatever view one may hold as to the value of Nissl's method of staining nerve cells in the study of the minute anatomy of those cells, no one doubts that this method has revealed to us certain pathological processes which, previous to its introduction, had escaped detection. In order to appreciate the extent of the field opened up, we have only to recollect that Nissl's method has shown that a series of definite changes in the cell body constantly follows serious injury to the axone; that various drugs and bacterial poisons, which produce their effects by action upon nerve cells, often make "greifbaren Spuren" upon those cells; and that the nerve cells are, in many cases, the field where are fought out the battles between toxine and antitoxine, poison and antidote.

It follows that the method should be useful in many pharmacological investigations. Do the various poisons of the materia medica produce appreciable anatomical changes in the nerve cells upon which they may act, and, if so, are the alterations in each case characteristic of the particular poison administered? Are groups of poisons allied by physiological action also related by physical changes produced in the nerve cells affected by them? While an enormous amount of work has been done along this line,* there are numerous poisons yet to be investigated. The following study of the action of gelsemium is presented as a small contribution to this work:

In man, toxic doses of gelsemium produce extreme muscular weakness, and the gait is staggering; ptosis often occurs; the pupils are fixed in dilatation, and internal squint is frequently observed; the lower jaw drops; there is diminution of general sensibility; articulation is indistinct or even impossible; the pulse is feeble and thready; respiration is slow and difficult; and death, when it occurs, is due to respiratory paralysis.

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* *Cf.* Barbacci, O. Die Nervenzelle in ihre anatomischen, physiologischen, und pathologischen Beziehungen. *Centralbl. f. allg. Pathol.,* etc., Jena, 1899, Bd. x. pp. 757–823, and pp. 865–936.

In the lower animals the symptoms are said to be quite similar to those in man, except that convulsions, as yet unexplained, are of frequent occurrence. According to H. C. Wood, the oculomotor paralysis is peripheral, the respiratory paralysis central in origin.

The nuclei of all motor cranial nerves were studied under the conditions of both acute and subacute maximal poisoning.

Acute Poisoning.—A rabbit, two months old, received by hypodermic injection twenty-five minims of a fluid extract of gelsemium kindly furnished me by Messrs. Parke, Davis, & Co. I was prevented from observing the symptoms of poisoning, but found the animal dead at the end of an hour.

The alterations observed in the cells may be summed up by the term "initial chromatolysis." The Nissl bodies are abnormally large, and their contours are indistinct. In many cases they run into one another, so that the normal regularity of arrangement suffers considerably. In accordance with the large size of the Nissl bodies, the achromatic spaces between them are correspondingly narrowed; the achromatic substance also stains more or less faintly. When these changes are well marked, the cell body seems composed of a large, spongy tigroid mass with but little achromatic substance. Many of the Nissl bodies stain faintly; numerous cells are seen in which the masses immediately adjacent to the nuclei take the usual deep or bright blue color, while in the other portions of the cells they are faintly bluish green.

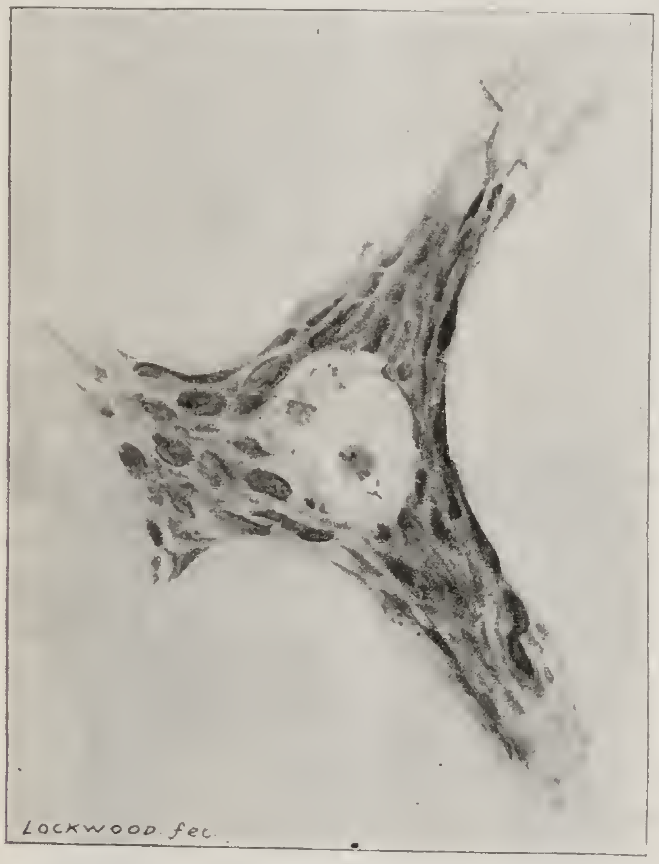

FIG. 1.—Acute gelsemium poisoning. Cell from motor nucleus of the trigeminal nerve.

The changes are not equally extensive in all the nuclei: thus they are most pronounced in the principal motor nucleus of the trigeminal nerve, in which scarcely any cell presents an entirely normal appearance, least pronounced in that of the oculo-motor nerve. In the latter nucleus, indeed, I can not assure myself that any pathological process is present.

Subacute Maximal Poisoning.—In this case two young rabbits were given daily increasing doses of the fluid extract on turnip leaves, which they ate readily until a few days before death. Beginning with two drops, the dose was gradually raised to fifteen drops in one case and eighteen drops in the other; the final doses had to be injected. During the last few days of the experiment the rabbits showed increasing languor and indisposition to eat, and finally sat huddled up in a corner of the cage with closed eyes. Each animal was found dead in the early morning.

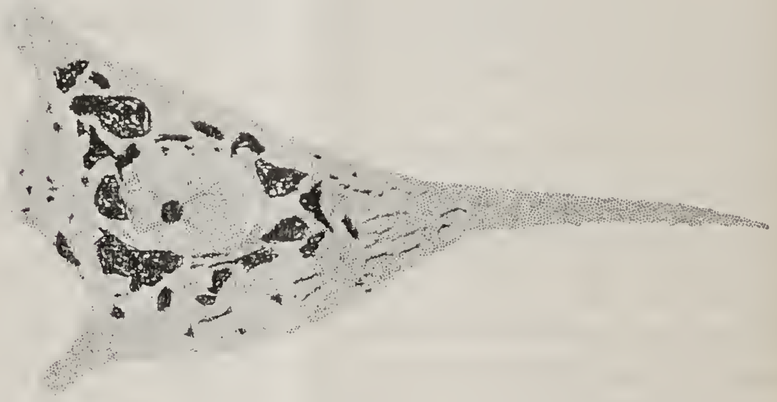

FIG. 2.—Chronic gelsemium poisoning. Cell from nucleus of hypoglossal nerve.

In the animals poisoned after this manner all the nuclei exhibit changes. In the cells most extensively altered the Nissl bodies are few in number, of large size, and situated principally around the nucleus of the cell. Elsewhere the ground substance is sprinkled with granules, which are in some localities widely separated, in others closely packed together. One receives the impression that in the one case they may represent Nissl bodies much reduced in volume, and that in the other they may have resulted from a fragmentation of those bodies. The latter arrangement is especially marked in the dendrites and their approaches. In cells less affected the same appearances are observed, sometimes limited to the periphery, at others to larger or smaller segments of the cell. The nucleus most seriously affected is that of the hypoglossal nerve, while that of the oculomotorius escapes with least damage.

As conclusions from this study we may say:

1. Toxic doses of gelsemium produce chromatolysis of the cells which constitute the nuclei of the motor cerebral nerves.

2. The alterations produced are not specific, but are quite similar to those caused by various other agencies which act injuriously upon motor nerve cells.

For Restlessness in the Insane.—Dr. Henry S. Noble (*Yale Medical Journal,* June) recommends ten drops of a 1 in 1,000 solution of hyoscine introduced surreptitiously into the patient's cup of coffee or tea.

THE TREATMENT OF THE MORPHINE HABIT —CAN IT BE CURED?

By JAMES H. McBRIDE, M. D.,
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The cure of the morphine habit is not so simple a matter as we might infer from the statements of some writers. My own experience has convinced me that comparatively few people addicted to the use of morphine or opium are permanently cured of the habit. It is not a difficult matter to relieve a person addicted to the habit so that, temporarily at least, it may be cured, but this is but the beginning of the cure as I shall try to show, and it is because some have failed to grasp the magnitude of the problem that there have been relatively so few successes.

It would hardly seem necessary to say that in withdrawing the drug, this should be done with as little suffering to the patient as possible. It is well to bear in mind, too, that the suffering is not a matter of pain only. There is of course some pain, a great deal in fact in the extremities, and also in some cases headache, neuralgias, etc., but this is but a minor part of the suffering and, too, the less serious part of it. As the medicine is withdrawn, there is exposed a weakened, hyperæsthetic condition of the nervous system that involves the mentality as well as the body, and which raises the suffering to a point of intensity that is perhaps not excelled by that of any kind of sickness or injury. For this reason the physician is under obligation to adopt such methods of withdrawal as will reduce the suffering to a minimum.

Of the possible methods of cure that of sudden, entire withdrawal is not practised now so far as I know. Either rapid or slow reduction enables the habit to be broken off with comparatively a small amount of suffering. Of course the term rapid is relative to the ability of the patient to endure suffering. Some people suffer more from the deprivation of the drug than others.

To treat the morphinist successfully the physician should have him under absolute control. This can only be approximately attained in private practice, and at best but for a limited time. For this reason the best place for the patient is in an institution where the world is absolutely shut out, and where the daily life can be directed and measured off by the hour. If, however, the patient is to be treated in private practice, he must at least be under the care of a trusty nurse, forbidden letters, and also kept from going where the drug can be obtained. When the morphine victim begins to suffer from the lack of the drug his courage is liable to fail him, and however anxious he may be to quit the habit and whatever sacrifices he may have made to be cured of it, yet he will, or many of them will, get morphine surreptitiously and take it while paying for treatment designed to relieve him of the use of it. In my early experience, a gentleman who had come a long distance for treatment for the morphine habit, and was having the drug gradually reduced, did not appear to show the usual signs of reduction. On ordering his room searched, a large number of powders of morphine were found concealed in his hatband.

During rapid reduction it has been my practice to keep the patient in bed or at least lying down. A person who will be comfortable in bed will suffer pain or depression of the circulation, if allowed to be up, even about his own room. There are occasional exceptions to this rule, but the majority are more comfortable in bed. During withdrawal many patients are reduced to a low state physically. Their vitality is depressed and the circulation is weak and inefficient. The gastric catarrh which is due to the habit is aggravated, and loss of appetite, nausea, and even vomiting may be added to the patient's sufferings. The nervous system is irritably sensitive, all impressions are painful, the patient is depressed, timid, and fearful that dreadful things may happen to him. He has chills, flashes of heat, perspiration, pain in back and limbs, with extreme prostration. This suffering, which is usual in rapid reduction, may be much reduced by keeping the patient in bed in a quiet, warm room.

The amount of each reduction and the length of the interval between them must vary with the strength of the patient. In my experience the reduction will hardly be managed the same in two persons in ten. To illustrate the method we will suppose an average case and gradual reduction. Every observant physician knows that the power of morphine to relieve pain is limited to moderate doses, but the morphinist is ignorant of this therapeutic fact. And as time passes and he gets less and less enjoyment from the drug, and as the petulance and depression and pessimistic moods it creates grow upon him he thinks he can find relief in larger and larger doses. He therefore increases his dose in time to large amounts, although the relief from each addition is relatively less and only temporary.

Some years ago I was called to see in consultation a woman who had severe pain during menstruation with hysterical convulsions; the attending physician had given increasing doses of morphine until she had taken seven grains the previous night without relief. A fraction of this dose, assuming any was needed, would have given her all the relief that the seven grains gave and she would have been saved from a certain amount of nervous erethism that such large doses of morphine produce, and which in this case aggravated the symptoms. The system is usually if not generally incapable of responding favorably to so-called enormous doses of morphine or indeed usually to enormous doses of any drug.

If a person is taking five or ten grains or more, the greater part of it can be left off at once with little or no discomfort, partly for the reason here given that the system makes no use of much of it and will not therefore miss it. If five grains are being taken, two and one-half or three grains can be left off at once with little discomfort. An important principle in reducing the medicine is that the patient should be allowed to recover from the effects of each reduction before another reduction is made. If this is not done he will suffer more from a proportionate reduction, as each one will find the system less able to bear the physical recession that must follow. When in the case supposed the daily amount has been reduced to two grains, the next reduction may be in most cases one-half of a grain, though in some only one-fourth of a grain can be taken off. When below two grains, the reduction must be smaller, being one-fourth or one-eighth of a grain until half a grain is the daily dose; then the reductions should be from one-twentieth of a grain or less. The last doses should be one twentieth or one thirtieth or one fortieth. Usually when the reductions are in proportion to the amount taken, the last reductions, when the daily amount taken is very small, cause the greatest suffering, for the system is, physiologically at least, conscious of every particle and feels its lack acutely. If much suffering or depression is caused by a reduction, it is sometimes well to return to the former dose, and after the patient has recovered from the shock of the reduction, another may be made. It might seem that time will be lost by thus returning to the larger dose, but my experience has been that in most cases it is speedier in the end.

Patients differ in their habits of taking the larger dose, some taking it in the morning and others at night. The habit of the patient in this regard should be respected by the physician. A patient should never know how much he is taking, neither should he know when a reduction is made, nor the amount of it, nor should he know when the last dose is given. These patients are timid and apprehensive, and if they are informed of what is being done, are certain to borrow fears and think another plan better. The physician who departs from this rule with them will make it no easier for the patient and will make trouble for himself. Of all the self-deceived and self-deceiving mortals the morphinist is chief; he thinks he knows exactly how much of the drug he can do without, and how much he can leave off and when he can leave it off, and in the maze of confusions, lies, and self-contradictions in which his mind wanders, his befuddled self-confidence is always asserting itself.

During the period of reduction there are many things that can be done to lessen the patient's suffering. Chief among his sufferings are the general and intense feeling of uneasiness and pain in the limbs, and the best remedy for this is frequent hot baths. I believe the depressed circulation in these cases is analogous to that of shock when the blood having been flooded into the abdominal circulation, the system suffers from what is practically a hemorrhage with the phenomena of circulatory failure. Stimulants and warmth relieve this or at least modify it. The hot bath stimulates the circulation and soothes the nervous system and quiets the patient. After the patient has remained in the bath until thoroughly warmed, he should be wrapped in a blanket and carried to bed and kept perfectly quiet. The headache, pain in legs, and irritable mental state, are sometimes relieved by such a bath, and a night's sleep may follow. When the pain in the legs is very persistent and severe, the legs alone can be bathed several times a day, the object of confining it to the legs being that when several are given in a day, the depressing effects of the general bath are avoided. Massage is often highly beneficial and should be used in every case at least once a day. It relieves pain and helps to procure sleep. The leg pains are sometimes relieved by rubbing with alcohol and ether.

Of medicines that quiet the nervous system the bromides are the best. The mixed bromides in moderate doses do well. Bromism should never be produced. I mention this because I have known physicians to produce bromism in order to lessen the suffering of quitting the morphine habit, but the practice is dangerous.

The digestion of some is disturbed by bromides and many cannot take them into their weakened stomachs at this time. Some take them well by rectal injection and obtain the effect desired. In cases where the system can be kept mildly under the influence of the bromides without injury in other respects, the irritable condition of the nervous system is lessened and suffering in some measure prevented. Codeine has not been of benefit in my experience. Practically it is a modified form of morphine, and in this condition nothing is gained by using it. Neither have I found any advantage in using other narcotics; indeed it seems to me the less of such remedies used the better. Of tonics and stimulants for the nervous system quinine and nux vomica or strychnine are the best. Quinine seems beneficial to patients in some cases, others are excited and made sleepless by it. Nux vomica and strychnine are of more benefit than any other remedy. Nux vomica should be given in pill, not tincture, beginning with one eighth of a grain three or four times a day and increasing it to a quarter of a grain or half a grain or more each day. The beneficial effects of nux vomica or strychnine are found in small doses, the ability of the nervous system to react to the remedy is limited, and moderate doses will usually do all the good that large ones will do. It cannot be repeated too often that the so-called enormous doses of remedies that affect the nervous system are rarely advisable, perhaps never advisable, for as a rule all the benefit that can be derived from such remedies will be gotten in moderate doses, and the condition treated may only be aggravated by persistence in giving large doses. Caffeine has not seemed to be beneficial in these cases. I give coffee which in many cases is very beneficial. Extract of coca is also helpful and next to nux vomica will do the most good.

Reduction can thus be accomplished with a minimum amount of suffering if the method here sketched is adopted. Rest in a quiet, warm room, frequent hot baths, massage, bromides, and nux vomica or strychnine or coca include the chief means. The food should be very light, usually liquid, though individual peculiarities must be considered. For some boiled rice and scalded milk prevent diarrhœa and indigestion.

Sleeplessness is one of the accompaniments of morphine reduction that must be overcome if possible. Of hypnotics, one hesitates which one to suggest, for at times they all fail. Chloralamide sometimes acts admirably. Trional is occasionally efficient, though it is apt to produce headache and nervous restlessness if given regularly for any length of time. Chloral and hyoscyamus sometimes succeed in producing sleep when nothing else will.

The physician must be on his guard against the fears, dreads, and panics of the morphinist. He complains of all manner of strange feelings, of mental experiences, that are unpleasant, or even horrible, of waking dreams, imperfect hallucinations, misshapen and scowling faces that appear as he goes to sleep, and he is much of the time menaced by a delirium that he only keeps down with an effort. He also has his physical terrors, chief among them being fear of or a feeling of heart failure and a dread of impending death and this, too, when the heart is regular, and there is no evidence of collapse. There are few things in medicine that require more tact and skill and nicer judgment or a better knowledge of the byways of human nature than these cases. They misconstrue statements, they habitually misrepresent and misunderstand. If a statement can be given two meanings they will apply the wrong one. For the physician to say the right thing and avoid saying the wrong is not easy, and considerable patience and diplomacy are required to keep the confidence of the patient and at the same time be firm and insist upon directions being followed.

When the patient is in no hurry and time is not important, he can be assured that the slow method of reduction, more gradual even than the plan I have here described, will give him little, if any, discomfort. I have had patients play golf and tennis regularly and sleep soundly without hypnotics while going through the process of quitting a habitual daily dose of five or six grains.

In health and in disease the mind is hourly influenced by visceral states, although it is a most difficult thing to assess the value of the relationship. An empty stomach means a hungry man, an irritable stomach means an impatient man, anæmia means a hesitating man, a diseased heart a timid or suspicious man, a torpid liver a gloomy man, these and other like facts show how closely the mind is related to the plebeian functions of the viscera and how largely they may modify the mortality.

Drug habits, like that of morphine, deprave the nutrition of both the brain and the body and though the craving for the drug is primarily expressed by the nerve centres it is reinforced by that of all the organs whose functional life has been adjusted to an abnormal habit and is part of it.

The morphinist has an intense and unreasoning desire for the drug which swallows up the moral resistances, and this it does all the easier because the habit has thus impaired not only the brain power but the physical vigor, reducing life in all its phases to a lower level.

This loss of moral restraint is observed not only in the morphinist but in the inebriate and in the recent insane and is evidence of a dissolution of the higher brain functions. In the recent insane the reasoning may be normal and yet there may be minor changes of character, lapses in truthfulness, indecision in little matters, lack of the former self-confidence, loss of reserve and dignity of demeanor, a fondness for questionable associates, a tendency to coarseness, all showing that the moral life in its choices, its initiatives, and its restraints has suffered impairment.

Our tests for reason are necessarily somewhat coarse, but in the complex web of human relations, in the constancies, the honesties, the delicacies of sympathy, the finer purposes that prompt to generosity and disinterested conduct, and the power of self-restraint, all of which mean the moral sense in action, these afford a most delicate test of mental health in certain important life relations. In all these respects, that is in respect of the moral qualities, the morphinist is a cripple and he will remain so until he regains health, if he ever does, by a slow process of character growth which can only be begun after the drug is stopped and then continued for some time subsequently.

The quitting of the morphine habit is therefore but part of the cure. Though the patient may have quit the drug and though he is comfortable without it, the cure is far from complete, and simply to stop at relieving him of the habit itself, and turn him loose with his shattered nervous system, and weak will, and craving for the drug yet active, is to invite a return of the habit with the additional injury that moral lapse always brings. Herein lies the great defect of the so-called cures of the morphine and opium habit that have been made. If these people are ever to be cured, different methods must be adopted, and to carry out these methods successfully physicians should recognize the peculiarities of the people who become either morphine habitués or inebriates of some kind. It is certainly true of a very large proportion of morphinists that they are people who are originally weak in self-control, and usually, too, they are impulsive and selfish. I have exceptionally been able to verify the common statement of patients that they became addicted to the habit from the drug having first been given by a physician, so that I think many of the statements to this effect are misrepresentations. It seems to me that very many of them are voluntary victims in the sense that they began taking the drug from precisely the same motives that most alcoholic inebriates begin to drink liquor, that is because they find pleasure in it. As a rule we have in the morphinist, as in the alcoholic inebriate, a man who was originally weak in self-control, and strong only in the qualities that thrive on human frailty. The number of these people who have originally some twist in the mental make-up is surprisingly large, for however talented they may be, and I have found some unfinished geniuses among them, the majority are certainly ill-balanced, unadjustable people, with a genuine talent for selfishness, and who in their constant attempts to make themselves comfortable fall upon the habit that becomes their ruin. The chapter is yet to be written which will fittingly describe the mental peculiarities and moral deficiencies of these people from whom this straggling, ruined army of humanity is recruited. It is not, therefore, probable, indeed it is hardly possible, that such people who in health begin the habit, will, when self-control, always weak, has been further weakened by disease or morbid habit, be able to resist the temptation to indulgence. To consider the morphinist cured and ready to go back into the world soon after the use of the drug has been discontinued, is like expecting the typhoid patient to go about his business as soon as the temperature has dropped to normal, ignoring the tedious convalescence and the perils that beset it. The cure of the morphine habit, like the cure of chronic insanity, to be permanent must be carried to a restoration of lost character elements. In the development of the child's character, the turbulent impulse must be slowly, even tediously brought under control, and in this way and only in this way, do we make actual the potentialities of cerebral structure. In repair of injury done by poisons of this class, a like process in brief must be adopted; that is, we must redevelop the weakened character while we do what can be done to strengthen a character that was probably originally lacking in the self-regulative qualities. The cure of the lunatic, as every alienist knows, is less a cure than a re-creation of character.

It consists in giving the patient a thoroughly normal environment which, acting unconsciously over a long period of time, and without a hint of the end for which it works, enables the person to gradually change the morbid fashion of his thought and feeling, and to regain bit by bit the habits of sanity. The morphine habit is but half cured when the use of the drug is stopped, and in order that the cure may be lasting the patient should be under control for months or a year before he is allowed to return to his occupation. The craving for morphine is often strong for a long time after its use has been stopped, and the patient should be under control as long as the desire for the drug continues or until he is strong enough to resist the desire.

To treat the morphinist successfully means not only to help him to get rid of the drug habit but it means to restore if possible a shattered nervous system to a normal condition and this involves prolonged seclusion and absence of temptation. The patient is much more easily managed and the chances of permanent cure increased if placed in an institution. These people are men in rights and privileges, but they are children in impulse and unregulated lives. They should be under legal control so that there could be no question of the right to detain them. As it is now they go to institutions voluntarily and leave them at their pleasure, and it is not surprising that the last state of most of them is worse than the first.

ENTEROCOLITIS.*

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In presenting this paper to this intelligent and learned body of physicians, I do not for one moment presume that any new or more interesting phase will be presented than that which has already been more elegantly written and more eloquently said about this much talked of, much written about, and much dreaded disease.

In discussing this subject, we will speak of inflammation of the small and large intestines as a single disease, for the following reasons: First, the symptoms of colitis at this period of life do not ordinarily differ, in any marked degree, from those of enteritis. The tormina tenesmus and abdominal tenderness which characterize colitis in childhood and adult life are ordinarily lacking or are not appreciable to the observer, and the muco-sanguineous evacuations are more often absent than present. Ætiology—intestinal catarrh of infancy is often produced by taking cold. Infants insufficiently protected by clothing and exposed to sudden changes of temperature, and to currents of air in apartments where they sleep or heedlessly exposed outdoors by careless nurses sometimes become affected with diarrhœa even of a fatal character. But the most common causes of infantile diarrhœa are, first, the use of food which is unsuitable for infantile digestion, and which, therefore, acts as an irritant.

It is the experience of every physician who keeps a record of fatal or even severe cases of summer complaint among infants, that very few of them are entirely breast-fed babies. Holt emphasizes this, when he says that, of 1,943 fatal cases of which he has collected the records, only three per cent. were breast-fed exclusively. He refers the partial immunity which, according to his statistics, infants under six months enjoy, to the fact that the great majority of such are breast-fed, and obtain a sterile and digestible food; with the commencement of artificial feeding, gastro-intestinal disorders at once acquire prominence.

The diarrhœas of infancy take a comparatively unimportant rank among infantile diseases during the cooler months of the year; but with the onset of the warm weather, they suddenly acquire importance, owing to their general severity, their large mortality, and to the frequency with which they are encountered. If we inquire further into the causes which induce this liability to summer complaint, an investigation will reveal the fact that the majority thus attacked are under two years of age.

The symptoms first noted will usually be a slight elevation of temperature, fretfulness, and a diarrhœa which may be so mild as to attract little attention; the stools, while thinner than usual, vary in appearance, being yellow, brown or green. Infants on a milk diet usually pass green and acid stools containing particles of undigested casein; an infant fed on starches will pass putty-colored, putrid-smelling stools. The tongue, at the commencement of the attack, is covered with slight fur; later on it becomes moist, but is often dry, and in dangerous forms of this malady, accompanied by prostration, the buccal surface is red, the gums more or less swollen, and occasionally ulceration will be noticed; vomiting is common, and may commence simultaneously with the diarrhœa, especially when indigestible food has been allowed.

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I have kept data for two years on the beginning of this symptom, and find that it usually begins about the fifth day. The fæcal evacuations may remain nearly uniform throughout the disease, but in many patients they vary in consistency at different periods; the stools are sometimes yellow when passed, but become green on exposure to the air from chemical reaction due to the admixture of urine or to the agency of the microbes which produce the coloring matter.

With a view of differentiating, as far as possible, the various fermentative processes which the micro-organisms induce in the intestinal canal, I have directed my attention to the odor of the stools, and have been much impressed by the readiness with which, by the odor alone, at least two general classes of fermentations can be distinguished. In the great majority of cases, without the use of direct questions, mothers even of very moderate intelligence will describe the odor of the stools as either sour or putrid. And this classification corresponds to the two great classes of food stuffs. The known fermentations of the carbohydrate foods all lead to the development of acids and gases. Under no circumstances can carbohydrates yield products with a putrid odor. On the other hand, proteids yield either odorless or putrid products.

The intestinal tract of the infant differs from that of the adult in the superabundance of lymphoid tissue present in its make-up. This tissue is essentially absorptive in function. This function is of great importance to the healthy and rapidly growing infant, but becomes a great drawback when pathological processes develop absorbable poisons in the intestines.

The pulse is accelerated according to the severity of the attack; the heat of the surface is at first generally increased, though but slightly in ordinary cases, but when the vital powers begin to fail from a continuation of the diarrhœa, the warmth of the surface rapidly diminishes. In fatal cases the face and extremities are pallid and cold, pulse frequent and feeble, skin dry, and urinary secretion diminished; the imperfect action of the skin and kidneys is very noticeable. With the foregoing views as to the causes and prominent symptoms of enterocolitis, the treatment should be directed on the following lines: (a) The child's strength must be sustained, and in all efforts to cure the disease its general welfare must never be lost sight of, nor its frailty overlooked; (b) The intestinal contents must be evacuated; (c) The diet must be regulated; (d) Special symptoms must be combated; (e) We must select an intestinal antiseptic.

For the evacuation of the intestinal contents, no drug or combination of medicines has given the satisfaction that calomel has. I usually order three grains rubbed up with sugar of milk, and made into three powders, one every hour until taken for a child two years old; for an infant one year old, I order three one-half grain powders, and it is usually desirable to follow the calomel with a full dose of castor oil. In some instances this dose will have to be repeated in order to secure satisfactory emptying of the bowels.

With thorough evacuation of the bowels some improvement is usually manifest, but the persistence of dangerous nervous symptoms should lead to the suspicion of the retention of poisonous fæces.

With the evacuation of the bowels, the bacterial culture in which the poisons producing the disease are being elaborated are removed from contact with the absorptive tissue of the intestine. But the bowel has not been sterilized, nor can this ever be accomplished. Nevertheless the bowel can be freed of the micro-organisms which have produced the poisons. The method for accomplishing this is clearly pointed out by the changes which occur in the intestinal flora of the newly-born at the establishment of the milk stools. The meconium is capable of supporting a great variety of micro-organisms, and while it is present a diversified flora exists. But with its disappearance from the intestine the flora likewise disappears, because the food necessary for the support of these micro-organisms is no longer present, and they die of starvation. To rid the bowel of the pathogenetic micro-organisms of summer complaint, keep out of it the food on which they thrive. For me, this is the keynote to the dietetic management of these cases. Many practitioners withhold all food for twenty-four hours or longer. This practice will unquestionably accomplish the desired end, if carried out long enough. It is not, however, free from objections. It is difficult to impress parents with its importance, and more difficult to secure faithful adherence to it; and often it cannot be carried out long enough to accomplish the desired result. It would be preferable to discover the offending food, and withhold it, allowing at the same time foods which will not maintain the offending micro-organisms.

When the stools are putrid or possess an intensified fæcal odor they indicate the decomposition in them of proteid material. No form of food other than the albuminous can give rise to putrid products. In such cases it is clear that proteid food should be withheld. It is unquestionably true that proteid decompositions occur at times without the development of offensive odors, but with the development of poisons.

Milk is the proteid food usually allowed; when this is stopped, arrow-root or barley water is given by many practitioners, but I prefer a modification of Jacobi's mixture, which I will describe later on. With a diet of this type, the putridity of the stools disappears usually in from twenty-four to forty-eight hours, depending partially upon how clearly the bowels have been cleaned out. The change in odor of the stools is of course not in itself important, except as an index of the changes in the intestinal contents. It is usually, however, accompanied by improvement in the systemic symptoms. With the disappearance of the putridity of the stool, the odor becomes either normal or sour; the acid fermentations are maintained by sugars and starches, and to some extent also by the fats. The acid fermentations are less dangerous to the child than the putrid fermentations because in them no systemic poisons are produced. Until the last few years attempts to disinfect the intestinal canal by medicines have been disappointing. Napthalin will obscure the odor of the stools by its own odor, while salol and the salicylates are of but slight value. Last August I reported my experience (see *Georgia Journal of Medicine and Surgery,* Vol. v., No. 2) with a drug which approaches very near to an ideal disinfectant. It is a drug of great value. I refer to tannopine. As the name implies, it is a condensation product of tannin, 87 per cent., and hexamethylene-urtramine (urotropin), 13 per cent.; and has for its formula $(C\,H_2)\,N_4\,(C_{14}\,H_{10}\,0_9)_3$. It is a light-brown, tasteless, slightly hydroscopic powder, nearly insoluble in water, weak acids, alcohol, and ether; soluble in weak alkalies, which should always be remembered when prescribing.

To understand the mode of action of tannopine, it will be well to bear in mind at the outset that it is not absorbed nor decomposed in the stomach, and only separates into its constituents, tannin and urotropin, under the influence of the alkaline intestinal contents. The tannic acid of the compound unites with the albuminous substances, forming albuminates; contraction of the connective tissue results, diminishing reflex activity and sensibility of the muscular tissue. Urotropin, the second constituent of this division, which takes place in the alkaline intestinal contents, according to some investigators, Cohn and others, acts as a disinfectant, and has some reputation as a drug used to increase the secretion of urine.

Tannopine being tasteless and odorless, is readily taken by children and even fastidious persons, and is free from any irritating effect upon the digestive organs: it is well tolerated. The drug has an antiseptic influence upon the intestinal canal, in cases of fermentative disorders. Being absolutely insoluble in water, it may be given dry on the tongue, or combined with chalk mixture, and bismuth sub-nit. The dose is 1 gramme (15 grains) three or four times daily for adults: 0.2 to 0.5 gramme ($\frac{3}{8}$ grain), administered every three or four hours, to children. It must be given freely three to eight grains (according to age of child), suspended in simple syrup, combined with plain chalk mixture. It unquestionably, however, acts as an astringent, causing contraction of the connective tissue, and the locking up of poisonous fæces must be carefully guarded against. The principal lesions in enterocolitis being located in the colon, shows that this is the main seat of the absorption of the poisons produced. When this fact occurred to me, I concluded that lavage of the bowel with an emulsion of tannopine would prove a valuable factor in treating this class of diseases. Lavage not only removes fæcal masses but clears out the mucus, and cleans the lesions, thus promoting their healing. Tannopine given by mouth and administered per rectum exerts a doubly curative influence. In giving lavage I usually add to a pint of sterilized water, tannopine one drachm, lime water one ounce, and inject solution very cautiously and slowly; allow it to be retained as long as patient can hold it; this washing is continued until the fluid returns clear. The physiological action of tannopine on the lesions in the colon is at once apparent, and needs no further comment. When watery discharges continue after the irrigation, hypodermics of 1.100 of a grain of morphine and 1.800 of a grain of atropine can be given; stimulants are indicated in the severe cases, and whisky is the best that can be administered. After the urgent symptoms have subsided, the child can be nourished. I recommend Jacobi's mixture (five ounces of barley water, the white of one egg, one or two teaspoonfuls of brandy or whisky, some sugar, and a pinch of salt). I usually add to mixture (as above) pulveris myristicæ, gr. xx, which acts as an anodyne and allays intestinal spasm, relieves sick stomach, and makes mixture more inviting by its aromatic qualities; of this mixture I give a teaspoonful every five or ten minutes, and stop breast milk for at least twenty-four hours. In 65 per cent. of my cases only one irrigation of the colon was necessary; some received two, and a few three irrigations. In all cases the tannopine in 3- to 8-grain doses every four hours was kept up as mentioned before in simple syrup, suspended in plain chalk mixture.

The most desirable position for administering injection is the dorsal decubitus, with thighs flexed and pelvis elevated, and a pressure of not more than two or three feet from a fountain syringe.

The following cases have been treated during the past two years, and give a clinical demonstration of the uses and application of tannopine:

Case I.—A baby boy, fourteen months old, when he first came under my care was much emaciated, and had a slight diarrhœa, caused probably by improper food; found a slight elevation of temperature on examination; nothing else abnormal was detected. I ordered tannopine, gr. viii, bismuth, subnit., gr. v, in a plain chalk mixture, suspended in simple syrup, every four hours, after having thoroughly evacuated the bowels. When being under treatment for a week, it was much improved, had gained in weight, and temperature had returned to normal, when a careless nurse allowed the babe to drink a quantity of cow's milk, some hours after which it began to have diarrhœa characterized by frequent copious watery actions of lessened consistence, of a foul, putrid odor, greenish color. The discharge, from its putrid odor, was produced by carbohydrate fermentation. The infant during the next two days lost greatly in weight, became greatly emaciated, and looked as if it would die; temperature ran up to 104° F.; the skin and body extremities became pallid and prostration was severe. The child had calomel, a grain and a half, made into three powders, one administered every hour, which was followed by the usual dose of castor oil, which gave it a good cleaning out. The evacuations in the twenty-four hours varied from seven to twelve; at this period looking death in the face. It occurred to me that lavage of the colon, with a solution of tannopine in plain chalk mixture would be of benefit. I at once ordered a pint of sterilized water, to which I added tannopine and lime water. I injected this into the rectum very slowly and very carefully; after getting almost half of it, I stopped proceedings, and allowed it to remain for possibly fifteen minutes, when it was evacuated, after which the balance was thrown high up into the rectum and with compress at anus, retained for forty minutes. All food (breast milk) was ordered discontinued, and Jacobi's mixture, with my modification, substituted; tannopine in 4-grain doses was ordered every four hours. It soon began to improve again, and convalescence was gradual, gaining in weight and strength; actions soon changed to a sour odor, instead of former putrid smell, and were less frequent. All symptoms gradually became less severe when child was put back to breast. A few days later diarrhœa abated entirely, and at the end of three weeks child was well and playful.

Case II.—A boy two years old. He was healthy at birth and remained well during the early months of infancy; was breast-fed until thirteen months old, when he was weaned and was fed on a number of starchy, artificial foods, none of which seemed to agree with his digestion, as he soon began to lose flesh, which continued progressively. It was noticed that his bowels were acting frequently, odor sour, and stools greenish-brown; his buttocks had a chafed appearance of an eruption; he vomited occasionally, and when he came under our observation it was noticed that he had abdominal pain, nausea, pallor and prostration; temperature, 104° F. I at once ordered calomel, gr. iii, rubbed up with sugar of milk, and made into three one-grain powders; directed one every hour until taken, to be followed with castor oil, which had the desired effect in about six hours, after which I irrigated the colon with tannopine solution, as in Case I, and ordered tannopine, gr. vi, with bismuth, subnit., gr. x, and tr. opii camph., m. xx, in plain chalk mixture, every three hours. Stopped artificial food, and gave Jacobi's mixture, with my modification, every hour, and had the pleasure of seeing a great improvement in thirty-six hours; medicines were continued, and modified cow's milk substituted for starchy foods. By modified cow's milk, I mean cow's milk modified by the addition of peptogenic milk powder, water and cream, which renders a humanized milk. After the first twenty-four or thirty-six hours the temperature became normal, and in ten days the child was almost entirely well, and gaining flesh and strength rapidly.

Case III.—A girl aged two years. Diagnosis, summer complaint. Had always been healthy, until present illness. Mother first noticed child was having frequent actions in which were noticed particles of food, which were being passed undigested. Child was having eight or ten actions daily for seven days when I was first called. Much emaciation had taken place. Found baby with a temperature of 103.4° F., pulse 120, urine scanty and high-colored, tongue red and dry; region around anus showed that the discharges were acrid, having produced a rash which had the appearance of heat; the child's stomach was quite irritable, could only take a few teaspoonfuls of milk at a time; actions from bowels very frequent and attended with griping and of a sour odor; some swelling of the abdomen, with tympany; would lie quiet for hours unless bowels acted or disturbed to take medicine; pallor and prostration noticeable; skin harsh and dry; stomach very irritable; projectile vomiting. Ordered calomel and castor oil, as in Case II. Full and free evacuations following. Ordered tannopine, gr. viii, every three hours, administered in plain chalk mixture; stopped all food and gave Jacobi's mixture with powdered myristica, added; and had the pleasure of seeing the child improve after the first thirty-six hours, and gradually grow better from day to day under treatment, until at the end of two weeks, dismissed cured.

Case IV.—A child aged three years and perfectly well was suddenly attacked with abdominal pain, nausea, pallor and prostration. He vomited for two or three days at frequent intervals, and was found to have a temperature of 103° F. Within a few hours he began to have frequent fæcal dejections, of a sour odor, lessened consistency, moderate amount, and a peculiar dark green color. This green is one of the more common colors met with in fermental diarrhœa. At first actions from bowels took place every hour. I at once gave this boy 4 grains of calomel, in half-grain doses, every half hour until taken, followed with a dose of castor oil, and had all food stopped, and substituted panopeptone, administered in crushed ice, teaspoonful every hour. After bowels had acted, which I concluded was not quite sufficient, repeated calomel, and was gratified on learning that several large watery greenish-brown stools had been passed. The nausea was still troublesome, and I decided to rely on tannopine by irrigation method, which I at once ordered, as in Cases I and II, and repeated until the solution returned as it entered; then twice a day for three days, when the child was much improved. Two or three days later the diarrhœa ceased entirely, the child's appetite returned, nausea subsided, the temperature became normal, and the child rapidly gained in weight and strength.

Case V.—A boy aged eighteen months, a bottle-fed baby. The mother had noticed an increase in the number of stools, and that they were thinner than natural, of a musty, putrid odor; irritability of the stomach was pronounced, with loss of appetite, increased thirst, tongue moist and covered with a light fur, pulse accelerated, respiration increased in frequency. The temperature in the rectum was 104° F. Diagnosis, choleriform diarrhœa. Ordered calomel to be taken in grain doses until three doses had been taken; a dose (a tablespoonful) of castor oil to follow the calomel, and wrote a prescription for tannopine, gr. iii, combined with bismuth subnitrate in chalk mixture, a teaspoonful every four hours. Continued this for five days, when the baby was dismissed, recovery complete.

In conclusion I would say that tannopine, owing to its freedom from odor and its perfect and prompt action, is particularly worthy of trial in the treatment of intestinal disorders, as it, unlike other astringent drugs, is not decomposed in the stomach or rendered inert through insoluble combinations in the upper part of the intestinal canal. This objectionable feature with the class of drugs heretofore used as intestinal astringents has been completely eliminated in the preparation of tannopine, which fulfills all the requirements of a true intestinal astringent, and possesses the following advantages: 1. It can be prescribed with efficiency both by the mouth and per rectum, with sterilized water and aqua calcis, used with a long rectal tube, it washes and cleans out the colon, which, owing to the superabundance of lymphoid tissue in its make-up, is essentially absorptive in function, this function being necessary for the rapidly growing infant, and when tannopine is thus administered, in plain chalk mixture, it splits up into its constituent compounds and is easily absorbed by the inflamed tissue ready to take it up. 2. It is an efficient medicament in all forms of enteritis, colitis, and inflammatory intestinal disorders. 3. It is advisable to continue the use of the drug in small doses for a few days after the bowels appear to have regained their normal function. 4. It is a completely innocuous powder, and can be administered without risk to the smallest infants, in doses of from 3 to 8 grains, four times daily; and to older children and adults from 7 to 15 grains, several times daily. 5. It acts by the tannic acid of the compound combining with albuminous substances, forming albuminates, which causes contraction of the surrounding connective tissue, diminishes reflex activity and relieves sensibility of the muscular tissue. Urotropin $(C\,H_2)_6\,N_4$, the second constituent of this division which takes place in the alkaline intestinal contents, acts as a disinfectant by inhibiting the septic organisms and restoring the integrity of the intestinal mucous membrane, stopping short the process of inflammation.

ON THE USE OF SUPRARENAL EXTRACT IN DISEASES OF THE NOSE AND THROAT.

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Of the many glandular tissues that have been used for various therapeutic purposes during the past few years, but one has proved of any value for local purposes in the hands of the laryngologist. The aqueous extract of the suprarenal gland as a hæmostatic of great value now possesses a unique place in our list of valuable and tried remedies. First given internally in Addison's disease with some degree of success, it was then used locally by Bates in ophthalmological practice with surprising results, the conclusions he reached, as published in his original paper, having since been confirmed by other investigators. From the results obtained by various experimenters by the internal and intravenous injection of the suprarenal solution, it was seen that it exerted a marked constricting effect upon the peripheral vessels, especially those of mucous surfaces. This action appeared very rapidly after the injection, and as suddenly disappeared, and from this general physiological phenomenon its action when applied directly to the mucous surface was readily confirmed. Wood's statement, "It is plain that a drug which acts upon the blood-vessels peripherally, that is, directly, as powerfully as does the extract of the suprarenal bodies, offers a probability of value as a local applicant," is well borne out.

During the past two years I have used this drug in the various pathological conditions of the upper respiratory tract in which it seemed to be indicated, with results that warrant the praises already accorded to it in eye work.

As obtained for local use, the desiccated extract of the suprarenal gland of the sheep is superior to that of other animals; the glands are dried *in vacuo* and powdered, and they contain a very large proportion of animal tissue. As in its natural state it consists of two parts, a cortex and medulla, the former is represented in the desiccated powder by certain elements which possess no local action on the mucous surfaces, the active principle, or ischæmic element, residing in the medullary portion alone. Undoubtedly the portion of the gland which possesses the remarkable vasoconstricting properties is not really the histological elements of the gland structure itself, but is evidently a product of the normal glandular metabolism, belonging to the group of so-called internal secretions; the active principles not yet being obtained in sufficient quantity for clinical use. Abel has done considerable experimental work in this direction. The astringent element of the gland is freely soluble in either hot or cold water and to a somewhat less extent in alcohol. The greater the dilution of the latter the more is the solubility increased, while in absolute alcohol no solubility exists. For practical use, therefore, I have obtained the active element from the desiccated gland by macerating it with water and filtering, the resultant filtrato being used in the conditions for which it was required.

As the drug is unfavorably affected by the addition of other remedies or preservatives, it is well to prepare a fresh solution as desired. Although small amounts of antiseptics may be added to the solution without impairing its value to a great extent, yet, when it is desired to use the drug for the control of hæmorrhage, especially in operative procedures, it is better not to add other drugs to the solution, its physiological action being at a maximum when used alone. Alkalies or alkaline salts especially interfere with its constricting action, while the mineral acids do not interfere to such an extent. Since the value of the adrenal has become more widely disseminated, a number of formulæ have been advocated in which the main object has been to retain the maximum of its physiological action and at the same time, by the addition of preservatives, obviate the necessity of making fresh solutions daily. Of these glycerin, boric acid, camphor, cinnamon, and alcohol have been most extensively used. While the solutions so made retain their property for a varying length of time, they also possess a fair degree of efficiency, depending upon the nature and amount of the preservative added.

The solution that is primarily the basis of whatever compound may be used is made by adding ten grains of the dried extract to one drachm of sterile water. This is allowed to macerate from ten to twenty minutes, and then filtered, the glycerin or whatever may be used being added to the filtrate. Boric acid may be used by dissolving the extract in a cold saturated solution, while equal parts of camphor and cinnamon water make an elegant preparation, but impair to some extent the efficiency of the drug. On account of the large amount of animal matter present in the commercial powdered glands, putrefactive changes are rapidly produced, the solution becoming dark in color, with an odor of putrescent animal tissue, and a precipitate is formed. If it is not desired to add the preservatives already mentioned, the solutions may be repeatedly sterilized by boiling, the drug being in no way impaired by the constant repetition of this procedure.

When the aqueous extract of this gland is brought into contact with the mucous membrane of the nose, pharynx, or larynx, the parts rapidly become blanched, the smaller arterioles are constricted to such an extent that they appear to vanish from the sight, and vessels of greater magnitude, which before the application were plainly visible, become markedly constricted; so great is the hæmostatic and vasoconstrictor action of the drug. The entire membrane to which the adrenal is applied not only shrinks to a marked extent, but rapidly changes in color, depending upon the amount of blood present in the tissues. This astringent action is most marked upon the nasal sæptum, and especially in cases of acute coryza, where the interior of the nasal chambers is swollen and the tissues are engorged, the mucous membrane of the sæptum being distended by the excess of blood and watery elements in the tissues. It has repeatedly been demonstrated in such conditions that the entire picture would change in a few minutes after the adrenal was applied, the redundant soft tissues were reduced to their normal proportions, and by the local astringent action the parts were also blanched until they presented the appearance of anæmia instead of congestion.

The drug, therefore, possesses two distinct actions upon the mucosa of the respiratory tract in positions where it can be directly applied; the first being the absolute blanching of the parts, followed by an almost imperceptible constriction, which, however, rapidly increases until in some regions, and in the nose especially, the tissues may be contracted down to the osseous structures, provided fibrous tissue is not present in excessive amounts. This action of blanching and constriction also occurs in the pharynx and larynx, but not to the same degree as in the nose, on account of the great difficulty of retaining the drug in contact with the mucous membrane of the former regions for a sufficient time to obtain its full action. The drug acts only upon mucous surfaces, whether normal or otherwise, no change taking place when it is applied to serous surfaces or to the unbroken skin, and, as the affections of the upper respiratory tract are essentially concerned with the mucous membrane in part or whole, the extract of the adrenal gland is peculiarly of service in this region.

Further, the drug produces its effects by contracting the arterioles and cavernous sinuses by a direct action upon their muscle walls, that is, peripherally. This purely local action is well demonstrated by contrasting the contraction of the tissues produced by the use of the adrenal extract and that produced by cocaine. The latter, as is well known, not only contracts and blanches the tissues at the original site of application, but by its action upon the peripheral nerves the constriction of the tissues extends in all directions, a large area being involved, with a greater absorption of the drug than is sometimes desired. This is not so with the adrenal, for its action is absolutely local; no other tissues are affected other than those with which it is brought into direct and immediate contact. To show this unlimited result, one may, for instance, place a small strip of cotton wet with the solution upon the inflamed pharynx, and when it is removed it will be found that the surrounding tissues, and even those in immediate proximity to the application, will still retain their original inflammatory and congested appearance, while the mucous surface under the application will be ischæmic and, from the contraction, depressed below the level of the surrounding membrane. In other words, the physiological activity is limited to the area of membrane brought into direct contact with the drug.

In epistaxis, whether due to minor traumatisms or to visceral affections, such as those of the heart, lungs, or liver, or the result of the local affections of the nares, immediate benefit is observed on spraying the interior of the nose. Should the blood be oozing from several points, or if the hæmorrhage springs from the anterior portion of the sæptum, as is most frequently the case, a small pledget of cotton saturated with the extract and applied to the bleeding point will in the great majority of cases cause a cessation of hæmorrhage. If the epistaxis is purely of local origin, resulting from a small ulcerated area over the anterior septal artery, the use of the adrenal extract will do more than control the bleeding for which it was applied, it will also, by its action in dissipating the congestion, to a great extent prevent further hæmorrhage from the same place. When the epistaxis results from excessive congestion the result of an organic heart disease for instance, the treatment alone of the more serious disease, of which the epistaxis is but a symptom, will prevent further attacks, in these cases the field of usefulnes of the adrenal being limited to the control of the active hæmorrhage. Several cases of epistaxis have been seen which had resisted many other applications for varying periods of time, so that the nasal bleeding assumed a character which may with propriety be designated chronic. After several applications of the adrenal had been made at varying intervals of time, the bleeding permanently ceased and has not returned, while previous to this the hæmorrhage would occur several times a week for from three to five weeks, and in one case it had occurred almost daily for five months.

To the long list of drugs recommended in the treatment of vasomotor rhinitis, or hay fever, must be added the extract of the adrenal gland. Since it was first brought to the attention of the physician, it has been used both locally and internally, the latter method being used by Solis-Cohen on himself with some measure of success, but such favorable results from its internal administration in hay fever have not occurred in my hands. He uses it in this affection in tablets, each containing five grains of the desiccated gland, from three to five hours apart, depending upon the degree of relief obtained. In a number of cases seen during the past two seasons this method was used, but without any success at all; in fact, some of the patients experienced discomfort, even when it was used in smaller amounts, and its use had to be promptly discontinued. Possibly, when used in this manner, it diminished the excessive nasal secretion to a very slight extent, but the other symptoms were unaffected, and the amount of relief obtained was so small that its internal use was given up.

Locally, however, it deserves a prominent place among the remedies used for this protean affection. It will restore the patulency of the nasal passages, greatly diminish the secretion, and reduce the attacks of sneezing until they no longer torture the patient, and, if it is used at frequent intervals in conjunction with whatever line of treatment may be indicated in the individual case, the terrors of this affection will be greatly ameliorated and the patient will be able to pursue his occupation with considerable comfort. It may be applied either by a spray or by cotton plugs, depending upon the degree of nasal obstruction. In cases where the turbinals were jammed against the sæptum and the patient was obliged to resort to mouth-breathing, my method has been to throw a coarse spray of a fresh solution freely into both nostrils; in the course of a few minutes the turbinal cavernous tissue will contract to a sufficient degree at the anterior extremity to allow of further spraying to a portion farther back which has not been reached by the solution; this is repeated until enough space is obtained to admit a long strip of absorbent cotton saturated with the drug, which is placed the entire length of the middle and inferior turbinates on each side of the sæptum and kept in position for a variable period. As a result of this procedure the amelioration of the symptoms as described above will be produced, and these results may be maintained by directing the patient to spray the solution into his nostrils at sufficient intervals.

It must not be assumed that suprarenal extract is in any sense a specific in hay fever; it is not, but it is the most valuable single remedy that we possess for the uses indicated, and, as the ætiology of this disease varies in almost every affected individual, so must our methods of treatment vary to suit the individual case. The adrenal, if used intelligently and in conjunction with both local and general measures, gives results which have not been previously obtained.

One of the minor disagreeable features to both patient and surgeon alike in operative nasal procedures is the post-operative swelling which invariably occurs when a deflected sæptum is straightened or the inferior turbinal cauterized. Very often the Asch or Mayer tube, which fits snugly immediately after the sæptum has been replaced, will slip out of position, and great difficulty is sometimes experienced in replacing it. It is in these cases especially that the extract is indicated; a spray of the solution will rapidly dissipate the swelling, and the original support may be inserted with the greatest ease. A similar spray in the hands of the patient will, if used every few hours, keep the swelling down and also aid to a considerable extent in the healing process. After cauterization of the inferior turbinate body, if there are secondary congestion and swelling, it has been my custom to insert a pledget of cotton moistened with the solution. The result of this is that the tissue cauterized heals much more rapidly than without the use of the adrenal, and, of still greater importance, the danger of synechia is entirely eliminated. A certain amount of traumatism invariably occurs in endolaryngeal operations, and the frequent use of the iced adrenal spray, not so coarse as that used in the nose, has proved of considerable value in my hands.

The effect of the drug upon the healing process after any operation upon the mucosa of the upper air tract will depend, all things being equal, upon the sterile character of the solution employed. If the adrenal extract has been sterilized by heat and any danger of its infecting the parts removed, it will be seen from day to day that the tissues heal much more rapidly than without the use of the drug. My experience in this respect is that the drug possesses more than the power of constricting and blanching the tissues, that it also is a nutritive as well, its frequent local use improving the nutrition of the parts and thereby aiding in the reparative process.

While secondary hæmorrhage in the hands of the experienced laryngologist is not of frequent occurrence, yet its dangers are constantly in evidence after operative procedures. In secondary bleeding the use of the drug will be of particular value. Its use in all operations has in my experience greatly limited such dangers.

The great class of cases in which the drug is indicated for daily routine use includes the local congestions of the mucosa, either acute or chronic. In all the acute affections of the upper air tract the spray of adrenal will give prompt relief, especially in the early stages of catarrhal inflammations. When used at frequent intervals, it is superior to any remedy we possess to abort the incipient congestion, and, even if the case is not seen until the later stages, much good can still be accomplished. It does good in these cases by contracting the vessels and forcing the blood out into the general circulation, relieving venous stasis, and preventing the accumulation of glandular secretion by its astringent power. Swain, in referring to its use for such purposes, remarks that "in acute congestions it has its widest application and greatest opportunity for good, but also in certain chronic conditions of the hay-fever type, where œdematous tissue seems prone to develop, it can be relied upon as one of the most helpful adjuvants which we have at our command." Under its use congestions diminish, pain is relieved by the withdrawal of blood from the parts, the comfort of the patient is considerably enhanced, and in those cases which are not seen early enough to abort the inflammation the progress of the affection is materially shortened.

In chronic congestion of the mucous surfaces the action of the extract is not so decided as in the acute form, for in this class of cases there is more or less vascular paresis; infiltration of liquid and cell elements through the submucosa and hyperplastic changes have taken place that materially alter the histological elements. Velich has directed attention to this point, but at the same time it must not be forgotten that this statement applies especially to the spray, as the retention of the extract in contact with the tissue for a short time, even if a decided degree of true hypertrophy exists, will produce the physiological action. In short, the drug is indicated in all acute and chronic conditions of the nasal pharyngeal and laryngeal mucosa characterized by excessive engorgement of the vascular channels.

It is contraindicated in anæmic processes and in conditions in which the mucous membrane possesses a low degree of vitality or insufficient nourishment, as under these circumstances its use will be attended with a still greater impairment of blood supply, with consequent lack of nourishment.

When the pharyngeal mucosa is relaxed, with a decided loss of vasomotor tonus, when the secretions are increased and the parts sensitive, a step toward restoration to the normal may be obtained by appropriate general medication and by painting the pharynx several times a week with a solution of adrenal of the strength of twenty grains to the drachm of sterile water. The use of this drug for the relief of coryza has practically been discussed under acute catarrhal inflammation, but it should be remembered that the sole reliance should not be placed upon the suprarenal extract; it is but a part of the local treatment, and at the same time appropriate constitutional medication must be instituted should the necessity for it arise.

The most striking and to some extent the most successful field for the use of this drug in rhinolaryngology is in the operative procedures upon the upper respiratory tract. The various methods of straightening the sæptum, the removal of spurs, and similar operations may be performed with but the loss of a few drops of blood or none at all. Not only is this a great gain to the operator, as it allows full visual control of the entire field of operation, but the absence of the profuse hæmorrhage so common in nasal operations is decidedly reassuring to the patient, especially if it is a nervous woman or child. The ordinary nasal polypus is readily removed without the loss of a drop of blood, but when the highly vascular turbinal tissue is removed to a considerable extent, the adrenal solution will diminish the bleeding, but not entirely control it, as in other intranasal operations. Quinlan has removed a nasopharyngeal fibroma without causing bleeding by applying the solution freely, but usually in these so-called bloody operations in the nasopharynx it is almost impossible to prevent considerable hæmorrhage. I have found it of no use as a hæmostatic in removing adenoid tissues of the pharyngeal vault, and the same has been my experience in excision of the tonsil. In both instances the great difficulties in the way of retaining it in position until the tissues are contracted prevent its successful application under such circumstances. For controlling the slight hæmorrhage resulting from the removal of small growths from the larynx, it does very well, but its field of usefulness in operations is, to my mind, to a great extent limited to the nasal interior.

The successful use of suprarenal extract in the control of active hæmorrhage, the prevention of post-operative bleeding, and the elimination of consecutive swelling depends upon the manner in which it is applied. As a result of my experience in a considerable number of operations in which this hæmostatic was used, it was found that the spray alone was not sufficient, as by this method the drug did not remain in contact with the tissues for a sufficient time to contract all the vessels. The best method of applying the drug is as follows: The parts to be operated upon are covered with a pledget of cotton saturated with the adrenal, which is allowed to remain for five minutes. This is removed, and a solution of cocaine or eucaine of whatever strength desired is applied in the same manner for a similar length of time. This is also removed and a fresh piece of cotton with the adrenal solution is again pressed against the tissues for another five minutes, and when this is removed it will be found that the parts are perfectly bloodless and totally anæsthetic. The operation can then be readily performed without pain to the patient and with great satisfaction to the surgeon.

How long are the anæmia and tissue contraction maintained? That will depend upon varying factors, the time it is allowed to remain in contact with the tissues, the method of application, the strength of the solution used, and also to a great degree the nature of the tissue and its pathological condition. The majority of cases will show some anæmia of the mucosa from one to five hours after the drug has been used in this manner and in the strength previously mentioned, and in some few cases of acute congestion decided action was shown for twenty hours. The amount of shrinking and ischæmia is also dependent upon these conditions, being greater in acute than in chronic congestion and being also more marked in the nose than in the throat.

While the constricting action of the adrenal has been compared to that of cocaine, and while in this respect it to a certain extent resembles that drug, yet it is in no way anæsthetic, but it does to some extent increase the anæsthetic effects of cocaine or eucaine by retaining them in the tissues and also by the anæmia produced. The anæsthetic is not immediately washed out of the tissues as soon as they are incised. In this manner, therefore, I have found it to be a valuable adjunct in the production of local anæsthesia. Further, as a result of this, the same degree of anæsthesia may be produced by weaker solutions of cocaine, and thus the toxic effects of the latter are to a great extent avoided.

The adrenal possesses absolutely no action upon the blood itself. Not as with other astringents, iron for instance, the fluid blood remains unchanged and shows no tendency toward coagulation; for this reason it is perfectly clean and does not cause subsequent irritation from firm, hard clots, as occurs when other remedies are used to restrain bleeding. Another quality of importance possessed by the aqueous extract is its non-irritating character. Any portion of the air passages may be frequently sprayed with the drug in almost any quantity, and in all the cases in which I have used it irritating effects have never been observed. It is a sedative astringent to mucous membranes.

As before noted, it may be compared to cocaine in some respects, but no vicious habit ensues to the individual after its repeated use, and it may be freely placed in the hands of the patient for the various purposes already outlined in this paper, with the confidence that no habit will be formed. In the part to which it has been applied absorption is for the time being prevented and no constitutional or untoward after-effects are observed, as the solution is retained by vascular contraction in the local tissues and does not escape into the general circulation. Finally, the adrenal extract may be repeatedly used in the same individual without losing any of its effects, the tissues responding just as promptly after it has been applied for weeks or months as they did when it was first employed.

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SOME OBSERVATIONS UPON THE OCULAR SYMPTOMS IN LOCOMOTOR ATAXIA.*

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To the ophthalmologist few nervous diseases are so interesting as that condition known as locomotor ataxia, or tabes dorsalis: for disturbance of function of the internal eye muscles, as well as pathological states of the external eye muscles and of the optic nerves, plays an important rôle in this disease. During the past year eighteen cases of tabes exhibiting eye symptoms have been handled by me—ten in my private practice and eight at the dispensary. Careful notes were made concerning those seen in my office, but unfortunately regarding those seen in the dispensary no notes of scientific value were made.

From my notes taken of the ten cases seen in my office, the following figures are interesting: Forty per cent. of the patients had paralyses of the eye muscles, sixty per cent. had inequality in size of the pupils, forty per cent. had reflex rigidity of the pupils, and fifty per cent. had atrophy of the optic nerve.

In six of the ten cases observed there existed a combination of eye symptoms; for instance, one patient had reflex rigidity of the pupils, atrophy of the optic nerve, and paralysis of several external eye muscles; two had reflex rigidity of the pupils, atrophy of the optic nerve, and inequality in size of the pupils; one had atrophy of the optic nerve and reflex pupillary rigidity; two had paralysis of external eye muscles and inequality in size of the pupils; three had inequality in size of the pupils alone; and one had paralysis of external eye muscles as the only ocular symptom of the disease.

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In two cases profuse lacrymation, and in one case nystagmus, existed.

In looking over the literature of this subject I find that Bernhardt (Zur Pathologie der Tabes, Virchow's *Arch.,* Bd. lxxxiv, 1, p. i, 1881, and also, Ueber das Vorkommen der Neuritis Optica bei Tabes, *Berliner klin. Wochenschr.,* p. 60, 1895), Dillmann (Ueber tabische Augensymptome und ihre diagnostische Bedeutung unter gleichzeitiger Berücksichtigung der Tabes-Syphilis Frage, nach dem Material der Schoeler'schen Augenklinik in Berlin. Dissertation, 1889), Berger (Die Sehstörungen bei Tabes dorsalis und Versuch einer Einheitlichen Erklärung des Symptomen-Complexes der Tabes. *Archiv. f. Augenheilkunde,* Bd. xix, pp. 305 and 391, 1888), Marina (*Ueber multiple Augenmuskellähmungen.* Leipsic and Vienna, 1896), Von Grosz (Die Symptome der Tabes dorsalis am Auge—Referat in *Centralbl. f. prakt. Augenheilkunde,* p. 181, 1896), and Leimbach (Statistisches zur Symptomatologie der Tabes dorsalis. *Deutscher Zeitschr. f. Nervenheilkunde,* Bd. vii, Abth. 5 and 6, 1895) have all dealt extensively with this subject, and have presented statistics regarding the frequency of eye complications observed during the course of tabes.

These six men have reported nine hundred and twenty cases of tabes with complicating eye symptoms, and from tabulating their reports I find the following averages:

NUMBER OF CASES.	Eye-Muscle Paralysis.	Inequality in Size of Pupils.	Reflex Pupillary Rigidity.	Atrophy of the Optic Nerve.
920	30.5 per ct.	41.6 per ct.	52.1 per ct.	35.6 per ct.

Nine out of my ten patients had at some period earlier in life, before any tabetic symptoms existed, become infected with syphilis. Three of them had contracted syphilis twenty years before coming under my observation, one fifteen years before, one twelve years before, one ten years before, and one each seven, six, and four years before. The tenth patient denied positively any syphilitic history, and repeated examinations failed to elicit anything from which to state that syphilitic infection had previously occurred.

It would hardly be fair to infer, as would seem to follow from these cases, that ninety per cent. of all subjects of tabes have syphilis as a causative factor (direct or indirect), for it is certain that an unduly large proportion of persons infected with syphilis come to Hot Springs for treatment, and hence more syphilitic persons are seen here than naturally would be seen in a city where a greater diversity of disease is met with.

Other observers along this line, however, have found a large prevalence of syphilis in their tabetic patients. Fournier states that it is present in from 91.0 to 98.0 per cent. of tabetic cases; Erb found it present in 90.0 per cent., Rumpf in from 80.0 to 85.0 per cent., Sachs in over 90.0 per cent., and Althaus in 86.5 per cent., and Gowers estimates that it is present in about 80.0 per cent. of all tabetics.

Gowers (*Diseases of the Nervous System,* vol. i, p. 399) says that "in those cases of tabes which succeed syphilis the lesion is not syphilitic in histological character; it is as degenerative as in the cases in which syphilis can be excluded, and is not influenced by treatment for syphilis; hence it must be regarded as a degenerative sequel of syphilis rather than as a true syphilitic disease."

From my observations up to date I agree thoroughly with the opinions expressed by Peterson (*Nervous Diseases, by American Authors,* p. 633). He remarks that, "while syphilis is an antecedent in three-fourths of tabetic cases the syphilitic resemble the non-syphilitic cases as regards the histological characters of the lesions, and specific treatment has no effect whatever upon the cases with syphilitic history; hence the malady is not a syphilitic disease, not a direct sequel of syphilis, but that the venereal disorder prepares the constitution like a cachexia for the development of the degenerative process."

Pritchard (Sajous's *Annual,* vol. iv, p. 442) says that, "of all the ætiological factors in tabes, syphilis appears most constantly and is unquestionably of the greatest importance; many neurologists—among them Möbius and Tarnowski—believe the development of locomotor ataxia implies necessarily the pre-existence of syphilis." He adds, however, that "this beyond question is an exaggerated idea."

Schmidt-Rimpler (*Erkrankungen des Auges im Zusammenhang mit anderen Krankheiten.* Vienna, 1898) makes a comparison of the eye symptoms in syphilis and tabes, as observed by Uhthoff and Marina respectively, as follows:

	Tabes.	Syphilis.
Paralysis of ocular muscles	17.0 per cent.	50.0 per cent.
Paralysis of the oculomotorius	8.9 " "	34.0 " "
Abducens paralysis	8.9 " "	16.0 " "
Trochlearis paralysis	0. (isolated)	4.4 " "
Reflex pupillary rigidity	30.0 per cent.	14.0 " "
Pupillary rigidity	50.0 " "	34.0 " "
Difference in size of pupils	32.0 " "	21.0 " "

From this comparison it is evident that pathological changes in the pupils are more frequent in tabes than in syphilis, but, conversely, that changes in the external ocular muscles are more frequent in syphilis than in tabes. These conditions accord entirely with my observations here in Hot Springs during the past few years.

In speaking of the eye-muscle paralyses present in tabes, Schmidt-Rimpler says that they are generally not complete; that complete ophthalmoplegias, exterior as well as interior, appear very seldom, and that they can be bilateral, or even in rare cases can be unilateral; that also often double images appear only in the extreme periphery and disappear in from one to two weeks.

This latter symptom was quite marked in one of my patients. One morning, upon awakening, the patient observed that all objects appeared doubled. This condition existed for two weeks and then disappeared. Upon examination, absence of the patellar reflex was found, and there was slight unsteadiness upon the feet with the eyes closed; also, upon questioning him closely, I elicited the statement that for some time vague shooting pains had existed in the lower extremities. In another patient of mine, four years ago, double vision existed for two weeks, and then disappeared—nothing further being thought of the matter. Twelve months ago the paralysis returned and has existed steadily since. Upon the patient's coming to me, a month since, I found vision in both eyes = $\frac{6}{6}$, but there were extensive atrophy of both optic nerves and narrowing of the field of vision so that the patient could only distinguish objects placed exactly in front of the functionating nerve fibres. He would experience a good deal of trouble in fixing upon an object, but once he had done so, visual acuity was normal. In the right eye the visual field was contracted to 20° for white, and in the left to 5°, the macular fibres being the only ones which remained functionating in this eye. Upon examination, I found slight unsteadiness with the eyes closed, occasional lightning pains in the lower extremities, and absolute loss of the patellar reflex. He assured me that the loss of the patellar reflex had occurred within the preceding six months—of this, however, I am somewhat doubtful. When no other prominent factor exists a transient paralysis of an ocular muscle should always be viewed as suggestive of impending tabes (Schmidt-Rimpler).

Some authors are of the opinion that in this condition only a transient aggravation of an already existing latent paralysis is concerned. Guillery (Ueber latente Augenmuskelstörungen bei Tabes dorsalis, *Archiv. f. Augenheilkunde,* Bd. xxix, p. 361, 1894) has advanced this opinion.

Symptoms of bulbar paralysis are sometimes found combined with paralysis of the ocular muscles (Schmidt-Rimpler). This author quotes Charcot as having reported one such case. In one of my cases—that of a retired army officer—I found this complication very marked. For fifteen years he had been affected with tabes. Several years before coming under my observation he began to have trouble with his eyes. Reflex pupillary rigidity and optic-nerve atrophy were both present when I first saw him. Some days after his arrival in Hot Springs he complained of dizziness and headache, and in addition to paræsthesias, paralyses of speaking and swallowing, he suffered with symptoms of facial paralysis and disturbances of circulation and of respiration. I afterward saw him in several of these attacks. They did not come on at stated intervals, and usually lasted from twelve to twenty-four hours.

Regarding the causation of the eye-muscle paralyses in tabes, investigation has shown that most frequently a neuritis produces them; a degenerative atrophy of the fibres has been found, for instance, which decreases from the periphery toward the centre.

Pupillary changes are of very frequent occurrence in tabes. Berger, also quoted by Gowers (p. 407) maintains that they exist in 97 per cent. of tabetic patients. Swanzy (*Diseases of the Eye,* 6th edition, p. 500) states that "meiosis is the usual state of the pupil in tabes," and that it is considered "due to a paralysis of the pupil-dilating fibres in front of the aqueduct of Sylvius from disease." He also says that mydriasis, except as a part of third-nerve paralysis, is rare. De Schweinitz quotes Turner (Sajous's *Annual,* vol. iv, p. 431, 1899) as believing that a single lesion in the forepart of the oculomotor nuclei in the Sylvian gray is the cause of both meiosis and reflex iridoplegia. In all my cases except one, in which atrophy of the optic nerve existed, mydriasis was present. Schmidt-Rimpler says that in inequality of the pupils meiosis is usually found unilaterally in the ataxic stage of tabes, while in the paralytic stage mydriasis generally exists.

The most constant pupillary change and one of the symptoms most uniformly present in tabes is the Argyll Robertson pupil. This symptom is also known as reflex pupillary rigidity, and by it is meant a condition in which the pupil reacts to convergence or to accommodation, but does not react to light, although the eye is capable of seeing.

A difference in size of the pupils is common, but it is exceptional that one pupil retains the light reflex when it is absent in the other eye. I have a patient under observation now who exhibits this last peculiarity, but, as he has no symptom of tabes other than this, and as he has had syphilis, I attribute it in his case to the latter cause. Five years ago he became infected with syphilis, which ran a latent course until a year since, when it became manifest in both retinæ and optic nerves. The affection responded readily to mercurial inunctions and iodide of potassium internally. Vision rose in the right eye to normal, but in the left eye for the past six months it has been stationary at $\frac{6}{9}$. The pupils are of the same size, but, while the pupil of the right eye contracts to light, accommodation, and convergence, that of the left contracts to accommodation and convergence, but not to light.

Kalischer, quoted by Schmidt-Rimpler, reports a case of tabes and dementia with ophthalmoplegia and muscular atrophy showing interesting changes in the pupils. In this case, in 1885, without tabetic symptoms, paralysis of the sphincter and of accommodation took place, but disappeared at an early date. Two years later, in 1887, abducens paresis occurred on the left side, and there was reflex pupillary rigidity with contraction on the right. The left pupil was the larger and reacted sluggishly. The patellar reflexes were absent. Eleven years after the first symptom, in 1896, reflex pupillary rigidity existed on both sides with variation in the size of the pupils.

In reflex pupillary rigidity an interruption of, or interference with, conduction between the corpus quadrigeminum and the sphincter comes under consideration, for here the light irritation does not cause in a normal manner contraction of the pupil, and the normal contraction of the pupil in convergence shows that neither a paralysis of the sphincter nor an irritation of the ciliospinal centre exists (Schmidt-Rimpler).

In five of my ten cases atrophy of the optic nerve existed. Dillmann found atrophy present as a complication in 42 per cent. of his cases, Berger in 44 per cent., Leimbach in 16.75 per cent., Von Grosz in 88 per cent., and Marina in 12 per cent.

Gowers (*op. cit.,* p. 408) remarks that atrophy of the optic nerve is generally an early symptom, commencing before incoördination is developed, and that in a large number of cases ataxia does not supervene; also that there seems a tendency for the spinal malady to become stationary when the optic nerve suffers. Benedict (Ueber die Prognose und Therapie der Tabes, *Wiener med. Presse,* No. 33, 1887) goes so far as to say that the tabetic motor symptoms, even after they have attained a high degree, retrograde as soon as optic atrophy appears. He says that he personally has never observed an exception to this rule. Bruner (*Medical News,* August 3, 1895) states that Osler, Ferrier, Gowers, and Buzzard have all observed an antagonism, as it were, between optic atrophy and ataxia. In all my cases, except one, when optic atrophy existed, the optic atrophy and the spinal malady progressed hand in hand, so it is impossible for me to agree to this opinion. Schmidt-Rimpler has also observed cases in which the two processes progressed simultaneously.

At times it is very difficult from the ophthalmoscopic findings to make a diagnosis of beginning atrophy in tabes. Usually the first indication of atrophy is a narrowing of the periphery of the visual field; in other instances there is a complaint that everything appears as though seen through a veil. As a general rule disturbances of the color sense exist early, vision for green, red, and blue being affected in the order named. The atrophy may begin with diminution of central vision or with a central scotoma, but, if such is the case, most authorities are agreed that some complication exists. Bruner quotes Gowers and Berry as having reported cases of optic atrophy in tabes which began in this manner. All my cases began with disturbance of the color sense and contraction of the visual field. Foerster does not believe that tabetic atrophy ever begins with involvement of central vision.

After an interval the diagnosis becomes comparatively easy, for the papilla assumes a whitish, grayish, or grayish-green and glistening appearance. Attenuation of the vessels, according to Mauthner, is the earliest symptom in beginning atrophy, but this opinion is not concurred in by Leber, except in so far as neuritis atrophy is concerned—he does not believe it applies to tabetic atrophy. Gowers (*op. cit.,* p. 407) says that sometimes there are slight signs of congestion in the early stage, and when such is the case some tissue of gelatinous aspect may develop in the disc, and the vessels may appear somewhat compressed.

In several cases I have observed that the paler papilla possessed better vision that the more normal-looking one. This is dependent, in the opinion of Gowers, upon the vascular supply of the papilla. He says that "the visible pallor of the optic disc is not always proportioned to the failure of sight," that change in tint depends upon wasting of the capillaries, and that this does not always correspond to wasting of the nerve fibres. From this statement of Gowers's it is readily seen that the tint of the atrophic papilla is dependent upon the vascularity of the disc before atrophy began.

Swanzy (*op. cit.,* p. 499) says, regarding the relationship between the atrophy and the spinal process, that "it is not well understood; the atrophy is probably merely a manifestation of a diseased process in the optic nerve similar to that which attacks the posterior columns of the cord."

Schmidt-Rimpler is of the opinion that the process in the optic nerve has no direct sequential connection with the sclerosis in the posterior columns of the cord; that it generally begins peripherally and progresses always centrally. He also remarks that it has been traced backward as far as into the tracti. He concludes with the statement that a primary atrophy of the optic-nerve fibres is concerned.

Regarding the prognosis of optic-nerve atrophy in tabes, it is only necessary to say that, while the disease as a rule progresses slowly, in the vast majority of cases it terminates in loss of vision. There are some few cases reported in which the atrophic process came to a halt, but in my opinion these are very rare in occurrence. In one of my cases optic-nerve atrophy had existed for several years unilaterally, and vision in that eye was totally destroyed before the other eye became involved. The second eye was becoming affected when the case came under my observation. For several months the process progressed quite slowly, and then suddenly a rapid change began and within sixty days vision in this eye also was totally destroyed. I simply mention this case to show how rapidly loss of vision may occur in some cases.

218 Central Avenue.

A NEW HYPNOTIC.*

BY WARREN B. HILL, M. D.,

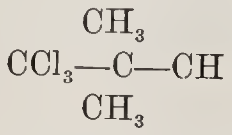
MILWAUKEE,

PROFESSOR OF MATERIA MEDICA AND THERAPEUTICS, MILWAUKEE MEDICAL COLLEGE.

IN these days when the synthetic laboratories, the pharmaceutical laboratories, and the fakirs are so busy turning out new remedies with euphonious names and unfathomable action, when the printing presses are kept busy printing literature to be distributed with prodigality extolling their virtues, I feel an apology is due you for calling your attention to a drug that is new in its therapeutic application, although known for some time as a chemical compound.

Hypnotics have been regarded as a boon to humanity, but, when we regard the dangers attending their use, their unreliability, and their depressing action, one cannot help thinking that the search for the ideal hypnotic is commendable. The ideal hypnotic should produce sleep as nearly as possible as it is produced by the fatigue of muscular action; it should produce the least amount of irritation to the alimentary canal, and should depress the circulatory system and the glandular secretions as little as possible. It should be safe and reliable.

I ask you to consider chloretone, which is described by Houghton and Aldrich as follows: "Chloretone, acetone chloroform or trichlor tertiary butyl alcohol, has, according to Willgerodt, the following formula:



$$\begin{array}{c} \mathrm{CH_3} \\ \mathrm{CCl_3—C—CH} \\ \mathrm{CH_3} \end{array}$$

"It is formed when caustic potash is slowly added to equal weights of chloroform and acetone, and may be isolated by distilling with steam. It is a white crystalline compound having a camphoraceous odor and a slight taste. It is very soluble in chloroform, acetone, alcohol, ether, benzene, and glacial acetic acid, sparingly soluble in water, less than one per cent."

When taken into the system, chloretone passes as such into the blood and may be isolated in the various tissues of the body. It seems to have an affinity for the central nervous system, as it is found in larger quantities in the nerve cells than in any other tissues. Although quite volatile, it is not eliminated to any appreciable extent by the kidneys or lungs, and it is therefore supposable that it is decomposed in the body, as the amount of chlorides eliminated by a dog under the influence of chloretone is far in excess of the normal.

Chloretone is capable of producing anæsthesia to almost any degree, varying with the amount taken. The researches of Mosso have shown that the most desirable sleep is produced by a product of metabolism during the process of muscular exertion. This substance does not destroy the protoplasm of the nerve cells, but by rendering the protoplasmic processes less active their susceptibility to external influences is decreased and sleep is produced. This is apparently what takes place when chloretone is broken up in the system. It has little effect upon the circulation—the pulse rate is slightly lessened, but the pulse remains full and strong. Kymographic tracings from the carotid artery of dogs show that the blood pressure is practically unaffected.

Chloretone acts not only upon the central nervous system, but as a local anæsthetic as well. Aside from its reliability, it has one marked advantage over many other local anæsthetics in that it does not produce temporary local anæmia, as is the case with so many local anæsthetics, and consequently does not interfere with repair processes. It is also quite a powerful germicide, as has been demonstrated by laboratory experiments as well as clinically.

This drug has a wide field of usefulness. In insomnia, which may result from various causes, such as nerve exhaustion, clinical reports show that it is without an equal. It has been found particularly useful in the treatment of those nervous disorders in which morphine has been used until it no longer produces the desired results. In delirium tremens it is the ideal remedy, as it does not destroy the protoplasm of the nerve cell and its action has not an initial stimulating stage, neither does it depress the already overtaxed circulatory system. The fact that it is not irritating to the alimentary tract, but, on the contrary, has a local anæsthetic action, makes it particularly efficacious in this disease on account of the extreme irritation of the stomach, with its consequent nausea, which is so often present. With your permission I will recite a case which I saw in consultation.

Mr. X. had been suffering several days from delirium tremens when I was called as a consultant. The usual treatment with bromides, chloral, etc., had been employed unsuccessfully, owing to the irritability of his stomach, which would not tolerate any medicine. I suggested forty-five grains of chloretone, which was given in divided doses within an hour and a half. Sleep soon ensued, which lasted about twenty hours, after which he took some light nourishment and was again given fifteen grains of chloretone. After this he rested quietly for the night and made an uneventful and rapid recovery.

As a local anæsthetic and antiseptic, I have used chloretone quite extensively and have found it superior to other remedies of this class which I have tried. I have found it a very efficacious anæsthetic in the removal of tonsils and in anæsthetizing the membrane of the nose before applying severe treatment to that organ. Bougies of chloretone not only are useful in anæsthetizing the urethra before the passage of sounds, but have a marked action upon the specific germs of urethritis. To relieve the pain after strong injections in cystitis, I have found irrigation with the one-per-cent. aqueous solution to be particularly beneficial. In dentistry it has been used with the best results as a local anæsthetic in minor operations about the mouth, as well as for an application to exposed nerve pulps.

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*Read before the Wisconsin State Medical Society, June, 1900.

But I would particularly call your attention to its efficacy in minor surgery. An aqueous solution (0.8 per cent.), applied to raw surfaces, will not only afford great relief from pain, but also render the field of operation sterile. The powder may be used directly on the wound with the best results.

Four days ago a little girl was brought to my office who had been bitten in the throat by a dog. Two large, painful wounds, one on either side of the neck, presented themselves with the usual ragged edges, and the wound was so deep as to expose the glands of the mouth. The wounds were washed out with an aqueous solution of chloretone and some of the powdered drug was sprinkled upon it as a temporary dressing during the time I was preparing to suture the wounds. In about ten minutes the wounds were sutured and dressed with powdered chloretone, without any inconvenience or evidence of pain to the patient, and union by first intention was the result.

Administration.—Chloretone is, perhaps, the safest of all hypnotics. One case is recorded of the administration of 120 grains within twenty-four hours without any more serious result than the production of five days' sleep, barring a few slight interruptions. In another instance 104 grains were taken, which produced seventy-two consecutive hours of sleep.

The remedy should be given freely and fearlessly, from fifteen to twenty grains at a dose in severe cases, and repeated often enough to produce the desired effect. Less than ten-grain doses seem to be useless when pain is present. The ordinary aqueous solution is not strong enough to produce marked local anæsthesia, except under the most favorable circumstances. For hyperdermic use, a saturated solution of chloretone in a mixture containing fifteen per cent. of alcohol and eighty-five per cent. of water is sufficiently strong to produce local anæsthesia for minor operations. A still more powerful local anæsthetic may be produced by mixing equal parts of chloretone and ether. This is particularly useful to dentists as an application to the nerve pulps when it is advisable to remove them.

In conclusion, I would say that the nearest approach to my ideal hypnotic is found in chloretone. Its action is better understood than that of most of the others of its class, the sleep which it produces is the nearest to the physiological sleep of muscular fatigue, and its action is continued with decreasing doses, which fact reduces the tendency to form a drug habit to a minimum. Abundant clinical and laboratory evidence shows it to be the safest of all hypnotics. As yet there have been very little, if any, disagreeable after-effects reported from its use. As a local anæsthetic it is ideal, combining, as it does, its anæsthetic with its germicidal properties, coupled with the fact that it has no deleterious effect upon repair procedures. With a feeling that this remedy has before it a brilliant future and a deserved popularity, I commend it to you for your careful consideration.

802 THIRD STREET.

Therapeutical Notes.

Ulceration of the Gums in Miasmatic Fevers.—Dr. Manuel Ignacio Polo (*Revista Dentál Americana*, March; *Dental Brief*, July), during the war in Cuba, noted the prevalence of small ulcerations of the gums attacking, if not checked, the throat, cheeks and soft palate as sequelæ of malarial disease. The ordinary disinfectants and astringents giving no good results, he applied a solution of crystallized chromic acid in distilled water, equal parts, diluted before use with two parts of water. Cocaine was applied first. The application was made every two days, the following month wash being used in the intervals:

℞ Boric acid	15 grains;
Listerine	450 "
Honey	300 "
Decoction of cinchona bark	4,500 "

M.

The average time of cure was four days.

Pills for Chronic Headache.—The *Gazette hebdomadaire de médecine et de chirurgie* for July 26th attributes to M. Zentler the following prescription:

℞ Arsenate of sodium, Sulphate of atropine } of each	45-100ths of a grain;
Extract of aconite	7½ grains;
Powdered canella	q. s.

Mix and make thirty pills. From one to four pills daily. The dose should be diminished if it causes dryness of the throat, mydriasis, or heat and tingling.

A Diuretic Solution.—The *Gazette hebdomadaire de médecine et de chirurgie* for July 26th ascribes the following to M. Gram:

℞ Double salicylate of theobromine and lithine	150 grains;
Water	2250 grains.

M.

Three or four soupspoonfuls to be taken daily.

A Powder for Condylomata.—The *Gazette hebdomadaire de médecine et de chirurgie* for July 22d gives the following:

℞ Calomel	450 grains;
Boric acid	275 grains;
Salicylic acid	75 grains.

M.

The condylomata to be powdered therewith three times daily.

For Foul Breath.—*L'Arte medica* for July 8th gives the following:

℞ Saccharin	15 grains;
Bicarbonate of sodium	15 "
Salicylic acid	60 "
Alcohol	3000 "

M.

A few drops in a tumblerful of water.

Phenacetine with Sulphonal for Migraine.—M. Liégeois recommends from considerable experience, both personal and professional, wafers containing 15 grains of sulphonal and 7½ grains of phenacetine. After the wafer may be taken a glass of cold sugar water, with a dash of kirschwasser.

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THE AMERICAN MEDICAL ASSOCIATION AND THE MEDICAL SOCIETY OF THE STATE OF NEW YORK.

EXCEPT for the ebullition which occurred at the Denver meeting of the American Medical Association, a discreet silence has been observed for several years concerning the forfeited affiliation of the Medical Society of the State of New York with the national organization. There has been a general feeling that time alone would heal the breach that is more apparent than real. If anybody was qualified to break that silence, it was Dr. Jacobi, and he has ventured to do so in an address delivered before the International Medical Congress in Paris. Dr. Jacobi's statement of the case is clear and candid, and his long and spotless career will give weight to his words, albeit they savor of the pathetic.

Evidence has for some time been accumulating that the profession is weary of the awkwardness which is sometimes the unavoidable outcome of the position in which the New York society placed itself some years ago. We believe that the American Medical Association is rapidly approaching the attitude of being willing to modify its code of ethics to suit changed conditions, and certainly there have been vast changes since the time when the present code was adopted. We believe, too, that the Medical Society of the State of New York, while unable to take the initiative in the movement for reconciliation, is prepared to welcome any conciliatory measures that the central organization may feel like taking. We earnestly hope that we are not mistaken in our interpretation of the signs on which we found our auspicious forecast, and we know that that hope and that interpretation are shared by a great number of the prominent members of the profession throughout the country. We feel sure, also, that the physicians of the State of New York have no such false pride as would prompt them to look askance upon the olive branch. The present situation is anomalous, it is monstrous; it may be righted speedily and thoroughly if men who are friends in private life can bring themselves to mutual concession in corporate action. Several months are yet to elapse before the St. Paul meeting is held. Let us hope that that meeting will put an end to the estrangement between the American Medical Association and the Medical Society of the State of New York.

THE ALLEGED BREAKDOWN OF THE MEDICAL SERVICE IN SOUTH AFRICA.

WE have refrained from commenting upon the sensational accusations concerning medical matters in South Africa, which have burst like a cyclone on the previously tranquil atmosphere of the military medical world, until such time as we could accumulate a sufficiency of data to enable us to form a reasonable opinion.

It will be remembered that up to June 27th the general feeling throughout the civilized world was that, whatever the shortcomings of the other military factors in the South African war, the medical department had ridden the billows triumphantly into port. But on that date the civilized world, especially Great Britain, was startled into frenzy by a series of most alarming allegations by a member of Parliament, Mr. Burdett Coutts, the burden of which was that everything medical in the South African campaign was as bad as possible. But the accusation was not couched in terms of vague generalities. Chapter and verse were given purporting to be from Mr. Coutts's own personal observations at Bloemfontein and Kroonstadt. The typhoid-fever epidemic was pictured in heartrending terms, and the miseries of hundreds of stricken soldiers were made the basis of sweeping indictments, which, although their author specifically disclaimed the direction thereof at the army medical authorities, were none the less promptly fastened upon them by the ever-fickle public mind. Among these specific charges were the packing together of typhoid patients in ordinary bell tents without beds, and with only a blanket and a waterproof sheet; without adequate food, medicines, medical comforts, and conveniences, or medical care from capable attendants. Concurrently came, especially in the South African press, side charges of brutal or callous treatment of patients, and general misappropriation of comforts and supplies.

A commission was promptly and properly appointed to investigate into these charges; yet whoever may ultimately be found to be at fault for such of the conditions as may finally be proved to have existed, we have little hesitation in stating that we do not believe that it will be the medical department in either its administrative or its executive branch.

It may be conceded at once that there was in all probability, as Mr. Burdett Coutts charged, a very serious *impasse* from a medical standpoint in Bloemfontein following on Lord Roberts's occupation. Considering the arduous task his army had performed in its forced marches and in the investment and capture of Cronje's laager, it would have been a miracle had there not been. These facts stand out clearly. Never has a more liberal supply of medical *matériel* been made to a campaign than was made by Britain for that in South Africa—undoubtedly the medical service was deficient as regards *personnel,* but that is the fault of the entire system, a system which has been assailed for years and years by the whole profession civil and military, in keeping the medical establishment so low that in time of emergency reliance has to be placed upon improvised help from civil life. General testimony clearly shows that in South Africa the help so obtained has been of very high quality; but, even so, it did not, according to the evidence, suffice in quantity to prevent the leaving of some three hundred and fifty patients to the care of three medical officers, without a single nurse or any trained orderlies.

The evidence seems to establish the following facts: 1. That the predisposing causes for typhoid fever in Lord Roberts's army on the march to Bloemfontein, and in consequence of all that occurred thereon, were phenomenally great. 2. That the accommodation to deal with it on the arrival at Bloemfontein was hopelessly inadequate. 3. That these predisposing causes were greatly aggravated by the water supply falling into the enemy's hands. 4. That the ample supply of *matériel* stored at Capetown was not for some reason available within a reasonable time at Bloemfontein.

The military exigencies of the case rendered the first factor unavoidable. The second was dealt with promptly, to the utmost extent possible, by the principal medical officer requisitioning every available building and establishing a hospital of 700 beds; the third must undoubtedly be ascribed, and its consequences also, to the "fortunes of war"; and the fourth is the result of a principle on which we have so repeatedly insisted, that, just as a general must be prepared to sacrifice the lives of his men in a battle to attain the object for which his army is fighting, so also he must pay attention first and before all things else toward maintaining that army in fighting condition, which implies keeping it supplied with food, stores, and ammunition, even though in so doing his sick and wounded have to suffer. The same object which justifies him in exposing the lives of some men when in good health to the dangers of death in battle, equally justifies him in placing the needs of others who are *hors de combat* second to the requirements for keeping those who are still in the fighting line in good fighting trim and circumstances. The transportation from the base was admittedly inadequate. This could not quickly be remedied. Therefore, naturally, supplies and munitions of war for the fighting force took precedence of medical necessities for the sick and wounded. It must be so. "War is hell," and that is a part of its hellishness. But it is inevitable none the less.

We are not, however, so much concerned with this particular war as with general principles of warfare which apply to all countries alike. There are certain lessons which may be drawn from this controversy. The first is that warfare will continue to be brutal and bloody and inevitable, until we all as individuals throughout the world, without distinction of race or creed, are ruled solely by reason and right; and, consequently, that the "humaneness" of warfare as practised to-day, compared with its brutality in times but recently gone by, is only "of grace," and can be carried only so far as is possible without sacrificing or jeopardizing the end in view.

The second is that, all-important as mobility of the fighting machine ever has been, it is daily more and more important; and the more successful a general would be, the more imperative it is for him to reduce his impedimenta. Roberts had to push on. Even at his quickest, the "elusive Boers" at this late stage of the game manage, save where in despair of ultimate results they choose to surrender, to be always "on the point" of being cut off, but they never are. But "pushing on" demands freedom from impedimenta; and, if the disabled are under any circumstances impedimenta, how more so do they become when they require enormous transport of special supplies. "The fighting men first, and as little for them as will suffice to keep them going," is the motto. That is the secret of rapid movement, and rapid movement is the secret of success in modern warfare. If this had not been known before, the Boers must surely have demonstrated it amply. Therefore those nations that would have their disabled soldiers properly cared for must be prepared to supply, not only the *matériel* and *personnel* adequate for their proper care, but *autonomous transport also,* which shall instantly take charge of them, and of all things needful for their welfare, and thus relieve the commander of their obstructiveness.

The third point is the need of adequate medical representation on the headquarters staff—adequate in this respect, that the principal medical officer must be in close touch as adviser with the military commander; and, moreover, must be as competent a military as he is a medical officer, so that from his perfect knowledge of both the medical requirements of the troops and the military exigencies of the situation, he may be capable of suggesting the best compromise for effecting the most for the medical welfare of those under his care, consistent with the strategical aims of his chief, to which his former consideration must always be subservient.

The last point is that those who are not so fully conversant with military requirements as with medical, had better leave the matter in the hands of more competent persons until human nature is so far universally regenerated that the absurdity of warfare will cease to be possible.

SURGICAL FANATICISM.

At the last annual meeting of the Kentucky State Medical Society, held in Georgetown, in May, a distinguished Louisville surgeon, Dr. ApMorgan Vance, read an energetic protest against certain of the surgical procedures that have come into some degree of vogue, but, in his opinion, are unwarrantable. The title of Dr. Vance's paper was Surgical Fanaticism, and it is published in the August number of the *Louisville Monthly Journal of Medicine and Surgery.*

The first operation discussed by Dr. Vance is Kraske's resection of more or less of the sacrum to render certain portions of the contents of the pelvis more accessible. He declares that he is growing more and more convinced that, if the rule of "the greatest good to the greatest number" is to be applied, this operation is never justifiable. He has heard of its being done on three patients, with three fatal results, by "an enthusiastic post-graduate man returning to his *clientèle* filled with the desire to shine as a great surgeon." Those who see in Kraske's operation a device that is valuable in certain cases, and are competent to perform it, would doubtless agree thoroughly with Dr. Vance that it is not "a procedure to be done by the rank and file of surgeons generally."

Extensive mutilating operations for recurrent mammary cancer in hopeless cases are next considered. The author mentions a case in which, against his advice, extensive removal of all the structures over the right mammary region, including skin, muscles, ribs, and pleura, was executed, and the woman almost died on the table, collapse of the lung occurring. In a short time she did die. This operation, he holds, was the result of fanaticism, and so is the procedure of following up the lymphatics along the broad ligaments and iliac arteries and removing them, if they are found infected, in cases of supravaginal hysterectomy for cancer. He argues that if the cancerous process was present in the lymphatics of the regions mentioned, the surgeon could never remove them all, and even if he could, the fact that lymphatics so remote from the original growth were involved would be proof that some still more distant from surgical attack were affected.

The practice of employing buried sutures of silver wire in closing abdominal incisions seems to Dr. Vance "the quintessence of absurdity." "If these sutures remained in the tissues," he says, "nothing more could be expected of them than could be obtained by a properly applied removable or aseptic absorbable suture; organic union is the only good union; the idea that the wires continue to act mechanically is foolish." Nature's efforts to get rid of these foreign bodies, he adds, entail a great deal of suffering on many of the patients on whom they have been used.

The Edebohls operation of extracting or extending one or both kidneys through lumbar incisions for purposes of examination is described at considerable length in quotations from Dr. Edebohls's own account of it. Dr. Vance feels "pretty sure that Kentuckians must be of a different kidney from the people Dr. Edebohls is in the habit of working on." Judging from his own experience in renal surgery, he thinks the procedure practically an impossibility—to say the least, an undertaking of considerable gravity.

Turning to the vermiform appendix, Dr. Vance properly denounces the "normal" prophylactic removal of that organ, and does us the honor of quoting from an editorial article of ours on the subject. We are not so sure that he is quite right in opposing the circumcision of boys, although the following statement, made in the discussion, is interesting: "A hundred Jews have had their urethras examined by a mechanical contrivance for testing its size, and a hundred more who have not undergone circumcision have had the same procedure carried out, and in the latter series of cases the urethras have been proved to be much larger." Moreover, we are in accord with Dr. Vance when he says: "The Almighty had some good reason for putting the foreskin there."

Dr. Vance's further denunciations are directed against clitoridectomy for "infantile paralysis, Pott's disease, chorea, worms, and almost anything else"—a thing of the past, it is to be hoped—and against ligation of the abdominal aorta, Sippel's projected method of restoring the heart's suspended action, the forcible correction of the deformity in Pott's disease, and, with some reserve, operations about the Gasserian ganglion. Whatever the unprejudiced reader may think of some of the details of Dr. Vance's arguments, there can be no doubt that their general purport is wholesome.

THE VALUE OF "FIRST-AID" PACKAGES IN WARFARE.

Testimony has been borne by Mr. Treves and other medical observers in South Africa to the zeal with which Tommy Atkins appreciates and uses his first-aid package. Dr. Charles B. Nancrede (*Toledo Medical and Surgical Reporter,* August) adds further testimony from his own experience to their value, and says that the evil of delay in the application of the contents of the first-aid package has been demonstrated to him in at least two instances on undressing bullet wounds swarming with maggots. It was found that the wounds had remained without any kind of dressing for many hours. "If," he says, "flies could from without deposit their eggs in a wound, the ubiquitous pyogenic organisms already present in or upon the patient's skin immediately surrounding the traumatism could still more readily find lodgment therein, unless immediately inhibited by contact with an efficient germicide." There can, in our opinion, be no doubt as to the value of such a dressing carried by the soldier himself, which will enable any one to protect his wound from further injury; and it seems to us that the method might with advantage be extended to railway employees, miners, and the workers at other unusually perilous crafts.

ARSENIC AS AN IMPURITY IN SODIUM PHOSPHATE.

The *Lancet* for July 21st comments upon a recent trial at the Marylebone police court, in London, in which action was taken against a firm of druggists for making up a prescription ordering sodium phosphate with a salt containing an appreciable quantity of arsenic. This led to the examination of a number of specimens of sodium phosphate, some even being crystals supplied as chemically pure for analytical purposes, all of which showed the presence of more or less arsenic in the form of a sodium salt. This arsenic no doubt finds its entrance through the sulphuric acid used in the preparation from calcium phosphate of the phosphoric acid, which is neutralized with sodium carbonate to form the sodium phosphate. The *Lancet* points out that there is a possibility of arsenic being contained in all drugs in the preparation of which commercial sulphuric acid of a cheap grade is employed, and adds that the extent to which sodium phosphate is used in the preparation of effervescing drinks makes this impurity particularly dangerous and renders it possible that during the summer season much chronic arsenical poisoning in a mild degree is being disseminated. We are able to state that a competent New York chemist has for several weeks been engaged in examining specimens of sodium phosphate, that he finds arsenic in all of them, or nearly all, in some instances in dangerous amounts, and that the results of his investigation will soon be published. Our impression is that sodium phosphate is not so much used in the form of effervescent drinks here as it is in Great Britain.

VENEREAL DISEASE AS EVIDENCE OF INFIDELITY.

The *Journal of the American Medical Association* for August 4th records the case of Baker *vs.* Baker in the Supreme Court of Pennsylvania, in which, on the wife's petition for divorce, it was ruled that "if the husband had such a venereal disease as gonorrhœa during the continuance of the marital relation, it must be regarded, in the absence of explanatory proof, as evidence of the fact of illicit connection with other women than his wife, there being no proof in the case that she was afflicted with that disease."

This opens up a very wide question. Of course, if the husband's venereal infection is discovered before he has had the opportunity to infect his wife, then, in so far as gonorrhœa is presumptive evidence of sexual intercourse, the case is clear. We say, "in so far as it is presumptive evidence" because, although one would be very sceptical of any of those explanations that were always wont to be received in the old days with such sarcastic incredulity, the more thorough understanding of the nature and virulence of the gonorrhœal poison and of its marvellous penetrating power renders it conceivable that infection can be conveyed by the use of public water closets, infected towels, sponges, etc.

But where the wife relies on an accusation of having been infected by her husband, it must not be forgotten that it is equally possible that he should have been infected from her, and that it may be her misconduct, and not his, of which the gonorrhœa in both may possibly be the accusing testimony. The most positive proof of antecedent infection in one or the other can alone be relied on in such a case.

THE GROWING PREVALENCE OF CANCER.

We fear it must be admitted that malignant disease is growing more widespread in various countries. Dr. Maeder, of Breslau (*Zeitschrift für Hygiene und Infectionskrankheiten,* xxxii, 2; *Wiener klinische Wochenschrift,* July 26th), finds that it is increasing in Prussia, Saxony, and Baden, and that the mortality from it is relatively greater in cities than in the country and greater among women than among men.

THE POLLUTION OF THE BRONX.

The pollution of the Bronx River from a point above Hartsdale, where inadequately treated sewage from White Plains is suffered to flow into it, is not only a nuisance detrimental to the value of property, but also a threatening source of danger to health. Relief has been sought in the courts and in the legislature, but thus far in vain. It is to be hoped that the evil will be remedied, or at least a remedy be provided for it, before another summer sets in.

WOUNDS OF THE SPERMATIC CORD.

In performing orchidopexy for inguinal ectopia of the testicle in the case of a young soldier shown at a recent meeting of the Société de chirurgie (*Gazette hebdomadaire de médecine et de chirurgie,* July 12th) M. Mignon accidentally cut the spermatic artery and veins, but no atrophy of the testicle resulted. This was attributed to the fact that the deferent artery was not injured.

THE STERILIZATION OF THE NAIL-BRUSH.

Dr. A. Winternitz (*Berliner klinische Wochenschrift,* 1900, No. 9; *Deutsche Medizinal-Zeitung,* July 12th), finds that almost all nail-brushes, even as they come from the maker, are contaminated with germs, and to a much greater extent, of course, after they have been in use. He says that boiling them for ten minutes in a one-per-cent. solution of caustic soda is sufficient to sterilize them.

THE MAGNET IN THE REMOVAL OF FOREIGN BODIES FROM THE BRONCHI.

A striking instance of the usefulness of the electromagnet as an aid in the removal of foreign bodies was lately reported to the Lyons Society of Surgery by M. Goullioud (*Indépendance médicale,* July 18th). A nail about two inches long had lodged in one of the intrapulmonary bronchi, where it had remained for about two months. Tracheotomy was performed, and through the opening the attenuated extremity of a powerful electromagnet was passed into the trachea. The nail was immediately caught on the magnet and removed.

HOT SILVER-NITRATE IRRIGATIONS IN GONORRHŒA.

We do not know that silver nitrate is likely to prove superior to potassium permanganate in the irrigation treatment of gonorrhœa, but as an addition to it its efficiency, as reported by a Constantinople physician, Dr. Menahem Hodara (*Monatshefte für praktische Dermatologie,* July 15th), is worthy of note. He begins with a solution of the strength of 1 to 4,000, and gradually increases the strength to 1 to 2,000, using a pint each time and having the solution as hot as the patient can bear. In from two to four weeks as a rule the cure is complete, even if there is very severe epididymitis.

THE *DEUS EX FONTE.*

We learn from the *New York Times Saturday Review* for August 4th, that Dr. Dambergis, professor of pharmaceutics in the University of Athens, has been submitting the waters of Epidaurus, unterrified by the tutelary fane of Æsculapius hard by, to the unreverential scrutiny of chemical analysis, with the result that he finds them possessed of alkaline properties suited to the sufferers from rheumatism and gout, who, as we know, used of old time to obtain miraculous relief there. "The old order changeth giving place to new." In old times the *deus ex machina* expressed the hidden deity to whose miraculous intervention natural physical effects were held to be due. Henceforth the *deus ex fonte* must denote the concealed material properties to whose natural powers imaginary supernatural effects were formerly attributed.

THE REVITALIZATION OF RESPIRED AIR.

Press dispatches from Paris dated August 14th state that an apparatus in which sodium dioxide is used to revivify air continually while it is being breathed over and over again in a confined space, such as that of a diver's suit of armor, has been publicly demonstrated to be effective. Two men are said to have remained inclosed for two hours in diving-suits from which all fresh air was excluded. If this information is true, it is easy to see that the invention may be made a life-saving device of wide applicability.

ITEMS.

Infectious Diseases in New York.—We are indebted to the Sanitary Bureau of the Health Department for the following statement of cases and deaths reported for the two weeks ending August 18, 1900:

Diseases.	Week end'g Aug. 11		Week end'g Aug. 18	
	Cases.	Deaths.	Cases.	Deaths.
Typhoid Fever	44	14	60	16
Scarlet Fever	51	5	48	3
Cerebro-spinal meningitis	0	7	0	9
Measles	96	6	55	5
Diphtheria	160	27	177	27
Laryngeal diptheria (croup)	7	5	0	2
Tuberculosis	186	145	166	161
Chicken-pox	20	0	3	0
Small-pox	0	0	1	1

Naval Intelligence.—*Official List of Changes in the Medical Corps of the United States Navy for the Week ending August 4, 1900:*

Delancy, C. H., Assistant Surgeon. Ordered to additional duty at the Naval Hospital, Newport, Rhode Island.

Elmer, M. K., Assistant Surgeon. Ordered to the Boston Navy Yard, August 1st.

Babin, H. J., Medical Director. Ordered to duty in charge of the Naval Hospital, New York.

Richards, T. W., Passed Assistant Surgeon. Detached from the *Machias* and ordered to the *Indiana.*

Stuart, A., Assistant Surgeon. Detached from the *Yankton* and ordered to temporary duty on the tug *Fortune* at the New York Navy Yard.

Von Wedekind, L. L., Passed Assistant Surgeon. Detached from the *Indiana* and ordered to the Naval Hospital, Chelsea, Massachusetts, for treatment.

Woods, G. W., Medical Director. Detached from the Naval Hospital, New York, and ordered home to await orders.

Naval Intelligence.—*Official List of Changes in the Medical Corps of the United States Navy for the Week ending August 11, 1900:*

Braisted, W. C., Passed Assistant Surgeon. Detached from the *Massachusetts* and ordered to the *Topeka.*

Crawford, C. A., Assistant Surgeon. Detached from the *Eagle* and ordered to the *Chesapeake.*

Delancy, C. H., Assistant Surgeon. Detached from the *Constellation* and ordered to the *Bancroft.*

Garton, W. M., Assistant Surgeon. Detached from the *New York* and ordered to temporary duty on the *Massachusetts.*

Marine-Hospital Service.—*Official List of Changes of Stations and Duties of Commissioned and Non-Commissioned Officers of the United States Marine-Hospital Service for the Seven Days ending August 2, 1900:*

White, J. H., Surgeon. To proceed to Mullet Key Detention Camp, Florida, as inspector.

Williams, L. L., Surgeon. To proceed to Stapleton, N. Y., as inspector of unserviceable property.

Smith, A. C., Passed Assistant Surgeon. Leave of absence for eight days, granted by the Bureau letter of June 30th, is revoked.

Wickes, H. W., Passed Assistant Surgeon. Bureau of June 26th, granting him leave of absence for fifteen days, is amended so that said leave shall be for four days only.

Greene, J. B., Passed Assistant Surgeon. Granted leave of absence for twenty-three days.

Mathewson, H. S., Assistant Surgeon. Granted leave of absence for one month from September 5th.

Walkley, W. S., Acting Assistant Surgeon. Granted leave of absence for two days.

Ryder, L. W., Hospital Steward. Granted leave of absence for fifteen days from August 1st.

Marine-Hospital Service.—*Official List of Changes of Station and Duties of Commissioned and Non-Commissioned Officers of the United States Marine-Hospital Service for the Seven Days ending August 9, 1900:*

Irwin, Fairfax, Surgeon. To proceed to Saco, Maine, for special temporary duty.

Carter, H. R., Surgeon. To report at Washington for temporary duty.

McIntosh, W. P., Surgeon. Detailed as inspector of the Mobile Quarantine Station.

Stimpson, W. G., Passed Assistant Surgeon. To proceed to Cairo, Illinois, as inspector.

Gardner, C. H., Passed Assistant Surgeon. Granted extension of leave of absence for nine days.

Goldsborough, B. W., Acting Assistant Surgeon. Granted leave of absence for two weeks, to be taken during August.

Marine-Hospital Service Health Reports.—The following cases of small-pox, yellow fever, cholera, and plague were reported to the surgeon-general during the week ending August 10, 1900:

Small-pox—United States.

New Orleans, La	July 28—Aug. 4	4 cases,	1 death.
Lowell, Mass	July 28—Aug. 4	5 "	
Omaha, Neb	July 28—Aug. 4	1 case.	
Manchester, N. H	July 28—Aug. 4	2 cases.	
Cincinnati, Ohio	July 27—Aug. 3	1 case.	
Cleveland, Ohio	July 28—Aug. 4	6 cases,	1 "
Tacoma, Wash	July 21-28	1 case.	

Small-pox—Foreign and Insular.

Antwerp, Belgium	July 7-21		4 deaths.
Cairo, Egypt	June 23-30		1 death.
London, England	July 7-21	31 cases.	
Lyons, France	July 7-14		1 death.
Gibraltar	July 15-22	1 case.	
Bombay, India	July 3-10		4 deaths.
Calcutta, India	June 30—July 7		18 "
Karachi, India	July 1-8	4 cases,	1 death.
Madras, India	June 30—July 6		3 deaths.
Vera Cruz, Mexico	July 21-28		5 "
Moscow, Russia	July 7-14	8 "	3 "
Odessa, Russia	July 7-21	8 "	4 "
Warsaw, Russia	July 7-14		8 "
Glasgow, Scotland	July 19-27	48 "	2 "
Geneva, Switzerland	June 30—July 7	5 "	

Yellow Fever—Foreign.

Goree Dakar, Africa	June 16-30	1 case.	
Rufisque, Africa	June 30	Several.	
Barranquilla, Colombia	July 14-21	3 cases,	1 death.
Bocas del Toro, Colombia	July 25	2 "	1 "
Cartagena, Venezuela	July 7-14	3 "	3 deaths.
Panama, Colombia	July 23-30	4 cases.	
Cardenas, Cuba	Aug. 3	1 suspicious.	
Matanzas, Cuba	July 25		1 U. S. Volunteers.
Santa Clara, Cuba	July 24	1 case.	

Cholera.

Bombay, India	July 3-10		175 deaths.
Calcutta, India	June 30—July 7		37 "
Karachi, India	July 1-8	1 "	1 death.
Madras, India	June 23-29		1 death.

Plague.

Sydney, Australia	June 16-30	18 cases,	3 deaths.
Port Said, Egypt	Apr. 20—July 9	90 "	36 "
Bombay, India	July 3-10		60 "
Calcutta, India	June 30—July 7		71 "
Formosa, Tamsui, Japan	June 14-21	33 "	30 "
Cavite, Philippine Islands	June 16-23	1 case.	
Manila, Philippine Islands	June 16-23	2 cases.	

Army Intelligence.—*Official List of Changes in the Stations and Duties of Officers serving in the Medical Department, United States Army, from July 7 to August 4, 1900:*

Banister, William B., Major and Surgeon, United States Volunteers, will report to the commanding officer of the Ninth Infantry, at the Exposition Barracks, Malate, Manila, for duty with that regiment on the expedition to Taku, China.

Gibson, Robert J., Major and Surgeon, United States Army, will proceed to Washington for further instructions.

Penrose, George H., Major and Surgeon, United States Volunteers, is granted leave of absence for one month on account of sickness, with permission to visit Japan.

Turrill, Henry S., Major and Surgeon, United States Army, will proceed to Iloilo, Panay, relieving Crampton, Louis W., Major and Surgeon, United States Army, who will proceed to Manila for instructions.

Woodhull, Alfred A., Lieutenant-Colonel and Deputy Surgeon-General, United States Army, is granted leave of absence for eight days.

Army Intelligence.—*Official List of Changes in the Stations and Duties of Officers serving in the Medical Department, United States Army, from August 11 to August 18, 1900:*

ADAIR, GEORGE F., Acting Assistant Surgeon, United States Army, will accompany the Fifth Infantry, under orders for foreign service.

CALDWELL, ROBERT E., Acting Assistant Surgeon, United States Army, will report for duty on the transport *Rosecrans.*

FULLER, LEIGH A., First Lieutenant and Assistant Surgeon, United States Army, will report to the commanding officer of the Third Battalion, Fifteenth Infantry, upon the arrival of that regiment in San Francisco *en route* for foreign service.

GODFREY, GUY C. M., Captain and Assistant Surgeon, United States Army, will proceed to San Francisco for duty with troops *en route* to Manila.

The United States Army Medical Arrangements for China.—The *Army and Navy Journal* for August 11th says that the surgeon-general of the army has ordered thirty-five hospital corps men from Fort Columbus and forty-one from Washington barracks to San Francisco for service in China. It is intended that the transport *Warren,* which sails on August 16th, shall carry at least one hundred members of the hospital corps and several surgeons and assistant surgeons to join the army in China. At the present time there are in the neighborhood of two hundred hospital corps men in China, but it is deemed necessary with the re-enforcements being sent to General Chaffee, to also send an additional number of medical corps men and officers. The serious aspect recently assumed by the situation in China has made it necessary to greatly increase the hospital corps of the army. At the present time this corps consists of 4,117 men, of whom over two thousand are in the Philippines. Many additional contract surgeons have been employed for Chinese service, and large quantities of medicines have already been shipped to China. The medical corps is doing excellent work, says the *Journal,* and will be well able to adequately handle the medical situation.

Funds Needed by the Boston Floating Hospital.—In making an appeal to the public for funds to maintain the Boston Floating Hospital for Babies the managers point out as evidence of the extreme economy practised in operating the hospital that only the two physicians who are constantly on duty, night and day, receive any salary whatever, and that this is a merely nominal sum. All the other physicians contribute their services gratis. The trained nurses are paid only five dollars each a week, although they can command three or four times that amount in private work, and all the other expenses are along equally economical lines.

An Attendant Held for the Death of a Patient.—The coroner has found an attendant responsible for the death of J. N. Drape, a patient at the Rhode Island State Hospital for the Insane. Evidence was produced to the effect that the attendant drank nearly a quart of whisky within the twenty-four hours preceding his assault on the patient.

Consumption Declared Contagious.—The Trenton Board of Health has declared consumption contagious and is to issue broadcast instructions as to the nature and care of the disease. The board had proposed to place the disease among the class that must be reported, but refrained from doing so on the representations of Dr. Mitchell, of the State Board of Health, who stated that efforts to get physicians to report the disease in the leading cities had failed.

Cancer and Consumption Hospitals at Buffalo.—The hospital for consumptives on the almshouse farm of Erie County, N. Y., was recently destroyed by fire. The County Board of Supervisors have approved of plans providing for two one-story stone buildings to be erected on the site of the burned structure. One of these buildings is to be devoted to the care of consumptives, while in the other cancer cases will be treated. The plans will now be passed upon by the State Board of Charities, and if approved by that body, bids for the erection of the buildings will be advertised for. The idea of including in the plans some provision for dipsomaniacs was discussed, but was finally dropped on the ground that it was an open question whether the courts had a right to send a dipsomaniac elsewhere than to a jail or a penetentiary; and for this reason any hospital intended for dipsomaniacs should be connected with, or at least near, the jail. It is hoped that the new hospital structures may be got under roof before winter.

A Hospital for West Hoboken.—A hospital association has been formed for the purpose of building a hospital in the northern part of Hudson County, N. J. When sufficient funds have been procured it is proposed to erect a suitable building as near the dividing line between West Hoboken and Union as possible.

The Contagious Diseases Hospital in Pittsburgh.—Much opposition is being manifested by those residing in the vicinity of the municipal hospital of Pittsburgh to the plan of the city director of public health, who proposes to locate the hospital for contagious diseases on land adjoining that occupied by the municipal hospital. The *Pittsburgh Dispatch,* in an intelligent and well-considered editorial, points out the groundlessness of the alarm felt by those who object to having the hospital located in proximity to their homes.

Registrations in Massachusetts.—Of the 191 applicants for registration in the practice of medicine at the recent meeting of the Massachusetts Board of Registration, only 144 were successful.

Dr. William B. Atkinson, of Philadelphia, formerly for many years the secretary of the American Medical Association and a member of the Pennsylvania Board of Health, was injured recently by being thrown from his carriage.

A Hospital for Consumptives in Toronto.—The National Sanitarium Association has agreed to give $20,000 toward the erection and equipment of a free sanitarium for the treatment of consumption in Toronto, provided that the city gives an equal amount.

A New Building for the Chattanooga Medical College, to cost from $15,000 to $20,000, will soon be erected, the plans for the structure now being in the hands of the architect.

A Million-dollar Hospital for St. Louis.—A bill authorizing the construction of a million-dollar hospital in

St. Louis, to replace the structure destroyed by the cyclone, has been approved by the City Council and has passed its first reading in the House of Delegates.

A Sanitary Compromise.—The Board of Health of East Orange, N. J., has hit upon a happy compromise between the rural and the urban ideas regarding the keeping of domestic animals. The rule adopted by the board is that domestic animals must keep quiet between the hours of 8 A. M. and 10 P. M., on pain of being removed 200 feet from the residence of any one who lodges a complaint. It is now in order to breed a strain of silent roosters.

The Marine Hospital Service.—Milwaukee has been raised from a third-class to a second-class station, and Assistant Surgeon Rupert Blue assigned to this station to succeed Dr. J. M. Allen, who has had charge as contract surgeon for many years.

Typhoid Fever in Pennsylvania.—Seventeen cases of typhoid fever were reported in McKeesport, Pa., during the first nine days of August. The water supply is thought to be at fault, and a special appropriation has been passed by the City Councils for the cleaning of the water reservoir. Numerous cases were reported in Pittsburgh during the first week of August, while several cases were reported in various towns near that city. One of these cases is that of Dr. W. W. McCleary, of Bellevue. A portion of the Bellevue sewer system cannot be used, owing to the fact that the river outlets are not yet finished. It is thought that this fact may have some bearing upon the appearance of the disease in Bellevue.

A School Committee's Criticism of a Board of Health.—The Board of Health of Manchester, N. H., has been severely criticised for making an independent investigation as to the sanitary condition of the school buildings of that city, without either notifying the School Board that such an inspection was to be made, or inviting the School Board to participate in the investigation.

Small-pox Among the Indians.—Small-pox has appeared among the Indians on the Turtle Mountains, in North Dakota, seventeen cases and three deaths having been reported. It is feared that a large number of Indians were exposed to infection before the patients were isolated. Some of the neighboring towns have instituted a quarantine against the reservation. According to an official telegram from the Indian agent at Devil's Lake Reservation, North Dakota, dated August 14th, there are twenty-four cases of small-pox in hospital at Oberon, N. D. Full powers have been telegraphed to take all necessary measures, including the employment of a trained nurse. Vaccine has been despatched to the reservation of the Turtle Mountain Indians.

The Plague Quarantine in Texas.—The Chamber of Commerce of El Paso, Texas, is endeavoring to have the State quarantine against San Francisco abolished, on the ground that it is unwarranted, ineffective, and absurd. Dr. Blunt, State Health Officer of Texas, has issued orders modifying the quarantine so as to admit all white people from San Francisco who can show proof of non-infection.

A Branch Hospital in Cincinnati.—The sum of $25,000 has been placed in the hands of the Cincinnati Hospital trustees for the erection of a branch hospital, this amount having been procured by the sale of city bonds issued for this purpose. On receipt of the funds, the trustees at once let contracts amounting to some $21,000. The hospital staff seem to have appointed a photographer without being authorized to do so by the board of trustees, and the latter body has declined to pay the photographer, taking the ground that if the staff wanted such an official they should themselves pay for his services, so long as his appointment had not been authorized by the board.

The Cohoes (N. Y.) Hospital Leased.—The Common Council of Cohoes, N. Y., have leased the City Hospital of that town to the local hospital association for a term of fifty years, at a yearly rental of five dollars. The lessees are forbidden to assign the lease or to sublet any of the buildings or land without the consent of the council. They are required to receive all patients sent by the city at a rate not to exceed the amount charged by the city hospitals of Troy and Albany for similar cases. They are not compelled to receive patients afflicted with contagious diseases. The city has power to abrogate the lease on the violation of any of its provisions by the lessees.

Births, Marriages, and Deaths.

Born.

Hayes.—In Brownville Junction, Maine, on Wednesday, August 1st, to Dr. and Mrs. Daniel W. Hayes, a son.

Shimer.—In Easton, Pennsylvania, on Friday, July 20th, to Dr. Ira A. Shimer, United States Army, and Mrs. Shimer, a daughter.

Married.

Bassett—Jibulo.—In Detroit, on Wednesday, August 8th, Dr. George C. Bassett and Miss Agnes M. Jibulo.

Page—Greenleaf.—In Manila, Philippine Islands, on Friday, June 1st, Dr. Henry Page and Miss Edith Longfellow Greenleaf, daughter of Dr. C. R. Greenleaf, United States Army.

Warrenfels—Grotjohann.—In Baltimore, on Wednesday, July 25th, Dr. G. M. Warrenfels and Miss Clara E. Grotjohann.

Van Urk—Blan.—In New York, on Monday, August 8th, Dr. Frederick J. Van Urk, of Rochester, and Miss Leontine Blan, daughter of Dr. Jules Blan, of Port Richmond, N. Y.

Died.

Ancrum.—In Charleston, West Virginia, on Tuesday, August 7th, Dr. John L. Ancrum, formerly of Abbeville, South Carolina.

Burns.—In Long Island City, N. Y., on Thursday, August 9th, Dr. John Francis Burns, in the thirty-sixth year of his age.

Chenery.—In Boston, on Wednesday, August 1st, Dr. Elisha Chenery, in the seventy-first year of his age.

Elkins.—In Albany, N. Y., on Friday, August 10th, Dr. Thomas Elkins, in the eighty-first year of his age.

Martin.—In Foxcroft, Maine, on Friday, July 27th, Dr. Harold C. Martin.

McIntire.—In Philadelphia, on Tuesday, August 7th, Dr. Clarence S. McIntire, in the thirty-seventh year of his age.

Shannon.—In Tulare, California, on Saturday, August 4th, Dr. George G. Shannon, in the fiftieth year of his age.

STOUGHTON.—Drowned, near Shanghai, China, on Sunday, August 5th, Dr. James Stoughton, United States Navy.

Pith of Current Literature.

Edinburgh Medical Journal, July, 1900.

Clinical Lectures on Circulatory Affections.—Lecture I. Persistence of the Arterial Duct and its Diagnosis. By G. A. Gibson, M. D., D. Sc.—The author says that, while this malformation is easily recognized during life by the results of physical examination, yet the statement of Walshe remains true to this day: "Clinical histories of open arterial duct are few and far between." Five cases have been under the author's care during the past few years. Two of them have not been recorded, two others have been briefly narrated in the author's work on *Diseases of the Heart and Aorta* (1898), and the fifth is considered in this article. The author says: "From a careful study of these cases, the diagnosis has come to seem in my eyes almost as exact as the solution of a mathematical problem." He thus gathers up the essential facts upon which, he says, the diagnosis of persistent ductus arteriosus may be founded with perfect confidence:

"There may be no dyspnœa, cyanosis, œdema, or other evidence of disturbance of the general circulation, and the recognition of the lesion may depend entirely on the presence of a few physical signs. Inspection may fail to yield any facts of diagnostic importance; palpation usually reveals the long thrill following the apical impulse, and enduring beyond the recoil of the blood on the semilunar cusps, which may be felt during the thrill; percussion may not show any enlargement of the cardiac dullness, while ausculation gives convincing evidence of the lesion in a murmur which may be regarded as almost pathognomonic. Beginning distinctly after the first sound, it accompanies the latter part of that sound, occupies the short pause, accompanies the second sound, which may be accentuated in the pulmonary area, or may be, and often is, doubled, and finally dies away during the long pause."

Would it not be a Gain to Both Pathology and Practice if a Direct Interaction Between the Morbific Agent (Noxa) and the Reparative Effort were Recognized, and the Conception of an Intermediate So-called Inflammatory Process Abandoned? By Andrew H. Smith, A. M., M. D. (of New York).—The author argues that there is no activity in inflammation. The morbific agent, or noxa, may be active, the tissues may be active, but the inflammation never. It is simply a name, not a force. In can do nothing. The collision of two armies is called a battle, but the battle is not an entity apart from the armies. Much less can it join forces with one of them and help on the fight against the other. Yet this is what inflammation is supposed to do when it is credited at one time with opposing the noxa and helping forward the reparative effort, and at another time with "attacking" and "destroying" the tissues. The energy that initiates the "inflammation" is the energy that maintains the "inflammation"; the latter has no momentum of its own, and can go no further than the noxa carries it. This is not simply another name for the noxa; it is the trend of the newest pathology to identify "inflammation" with repair.

The same power which, working in the embryo, evolves a living being, continues its operations thereafter as a reparative force. In health its function is only to supply the natural waste, and until maturity to provide for growth. But disease or injury demands a further activity. The same prescient adaptation of means to a predetermined end, that makes of one embryonic material a brain here and an eye there, with heart and liver, arm and leg, each in its proper place, lays out a plan of repair based upon the nature and extent of the damage to be repaired. If, for example, a foreign body is lodged in the tissues, the reparative effort will differ in accordance with the nature of that body and the degree of irritation which its presence occasions. When, in place of a lesion accomplished at a single stroke, we have a continuous morbific action working upon the tissues, the process is twofold, consisting of a destructive action on the one hand and the reparative effort on the other. Such a condition obtains when, for example, the part is infected with pathogenic bacteria.

As for the power of the noxa in and for itself to deliver an effective attack upon the tissues, and to call forth their protective and reparative energies, there can be no hesitation, of course, as regards all the various forms of trauma, in the old sense of the term. Obviously, in mechanical, chemical, and thermic injuries, the result upon the tissues will be exactly proportioned to the degree of the noxious energy. The same is true in those cases in which the noxa is such by virtue of a peculiar vital relation to the tissues.

In this repair of tissues, as in the repair of a building, an accumulation of material is necessary. This material is brought by the blood, and the increased demand requires enlarged vessels; hence hyperæmia with its accompanying heat and redness. The material is for the most part required for use outside the vessels; hence effusion of serum and diapedesis of cell elements, and this in turn produces swelling. The pressure upon nerve fibres causes pain. Thus we have the four cardinal symptoms of inflammation as the natural consequence of any effort toward repair, and without the necessity of invoking the aid of any other "process."

The author, therefore, ventures the proposition that the entire doctrine of "inflammation" should be abandoned, and that the phenomena ascribed to this process should be assigned to new relations, in accordance with recent advances in pathology, and especially in bacteriology—advances that have rendered obsolete a conception handed down to us from remote ages. In the matter of nomenclature, this proposal would involve, of course, doing away with the termination "itis." As most of the phenomena heretofore included under the term "inflammation" are manifestations of the local action excited by a micro-organism, or by a poison circulating in the blood, the author proposes that such action be expressed by a termination to be affixed to the name of the organism or poison, if the same can be determined, or to the organ or part affected, in case the particular infecting organism or poison is not identified. We have a universally accepted precedent for the first-named use in the case of *tuberculosis*. He would extend the use of this termination to the action of other organisms, and express by *streptocosis* an infection by the streptococcus, and so on.

If a general name is demanded as a substitute for "inflammation," at least three words would be required to express different kinds of noxæ, acting in different ways, and leading to essentially different results.

These might be *traumosis*, to include wounds and injuries; *toxosis*, to include the local action of poisons in the blood; and *bacteriosis*, to include the action of micro-organisms.

This is not merely a matter of words and names and definitions, but one of great practical importance. So long as inflammation presents itself before us as the object of our therapeutic efforts, something to be "combated," "controlled," or "subdued," so long we are tempted to look away from the continuously acting morbific agent, and at the same time to ignore the effort that the tissues are making for their own defense and repair.

But it is not to treatment alone that advantage would come from doing away with the idea of inflammation. It would lead to more exact diagnosis. As it is now, the average diagnosis is supplied by merely adding the termination "itis" to the name of the organ or part that has something or other the matter with it. No attempt is made to determine, or at least to designate, the morbific agent underlying the phenomena.

Points of Practical Interest in Surgical Gynæcology —III. The Therapeutics of Disorders of Menstruation. By H. Macnaughton Jones, M. D.—Few terms in medicine have given rise to more confusion of thought and greater errors in the clinical treatment of disease than those of "functional" and "organic." To no deviation from the normal course of a physiological function does this remark apply with greater force than to disturbances of ovulation, and its associated and frequently correlated external manifestation, the menstrual flux. This confusion is the more to be avoided in dealing with closely correlated signs and symptoms widely differing from each other, yet often concurrent or alternating, as in the disorders of menstruation grouped under the heading of amenorrhœa, dysmenorrhœa, menorrhagia, and metrorrhagia. These deviations from normal menstruation are often coexistent in the same individual.

Menstruation must be regarded in the light of a complex train of cyclical physiological phenomena, involving various structures in distinct but intimately correlated parts, manifesting themselves in rhythmical regularity and sequence. This cyclical and rhythmical sequence is subject to interferences which have their commencement at times within the organ in which these processes originate, or are determined by extragenital abnormal conditions, present either in the nervous and circulatory systems, or on various organic changes which have taken place in such viscera as the brain, heart, liver, spleen, or kidney. If we analyze the first group of disturbances, we find that a fair proportion of them is due to congenital abnormalities in structural configuration, in position or absence (partial or complete) of certain parts of the genitalia. A second class is marked by the pathological changes that have previously occurred in some portion of the generative tract, ovary, oviduct, uterus, or vagina. Lastly, there are the cases in which interference arises from concurrent, congestive, and inflammatory states of the adnexa or uterus, induced by some accidental or other excitation, as a traumatism, exposure to cold, coitus; excessive, inefficient, or incomplete cohabitation; masturbation, too violent physical exercise, or severe and prolonged mental study and strain.

In regard to the menopause or climacteric period, it has been unfortunate that the occurrences frequently met with at this time of a woman's life have been in great measure looked upon as physiological and necessary accessories to ovulation, and not, as they frequently are, as the results of pathological changes in the generative organs. We may broadly divide the various neuroses of the menopause into those which are incidental to the disturbed or arrested physiological function, and in which no considerable pathological changes in, or abnormal conditions of, the generative organs are to be found, and those where, in addition to such a cause, we have also present pathological abnormities, with displacement of an organ. It becomes a matter of the first importance to decide, in any case in which there is a suspicion that some disorder of the ovary or uterus is associated with symptoms occurring during those years when the change of life is proceeding, whether there are these pathological or abnormal states present.

As we find the necessity at the time of the natural disappearance of menstruation for caution, and the exercise of foresight, so is the same need for care proved by mistakes we are apt to make when it is first appearing. As the diseases of the pelvic organs in children are becoming better understood and investigated, it is the more evident that they are not so uncommon as was thought.

When it is determined that the disorder has not an extrapelvic or intrapelvic pathological origin, we are in a position to decide whether the affection we have to treat is of an organic or functional nature. The therapeutics of disorders of menstruation are hygienic, medicinal, and operative. Under the first we include, in the treatment of suppression or absence of the catamenia, suitable gymnastic exercises, embracing a course of Swedish movements and massage. With this may be combined the external and internal use of galvanism or faradization. The author has not found cycling, if not overdone, and where no cardiac trouble was present, mischievous, but rather the contrary. Physical exercises, Weir Mitchell treatment, and hydrotherapeutics are recommended under appropriate conditions.

Regular bathing at proper temperature, attention to clothing, avoidance of exposure to chill, and coldness of the extremities in girls of languid circulation, with regulation of the bowels, are to have attention, and overstrain in education must be avoided.

For internal medication the author refers to senecin, in doses of from two to six grains, alone or with hydrastin, in dysmenorrhœa or amenorrhœa; piscidia erythrina, in one- or two-grain doses, with hydrastin and viburnum in dysmenorrhœa and menorrhagia. Hydrastis is recommended in atonic vascular states of the uterus. As an astringent in uterine hæmorrhage, hydrastine hydrochloride, 1-3 grain, ergotine, $\frac{3}{4}$ grain, cannabine tannate, $\frac{1}{2}$ grain, and stypticine, $\frac{1}{4}$ grain, is recommended. Salix nigra is useful in neuralgic pains and ovarian hyperæsthesia. Cornutine hydrochloride, with or without ergot, is serviceable in menorrhagia, the hypodermic dose being from 1-12 to 1-6 of a grain. Cimicifuga may be given in menorrhagia from subinvolution; viburnum, with or without caulophyllin, in amenorrhæa and dysmenorrhœa; and apiol, the green being the more active variety, in amenorrhœa, also aletris farinosa and manganese dioxide. Borax, with bromides, is recommended for epileptic seizures at puberty; antipyrine, phenalgin, or monobromide of camphor in ovarian pain; and vascular tonics, such as strophanthus or digitalis, when amenorrhœa or dysmenorrhœa accompanies cardiac irregularities. As a substitute for morphine in dysmenorrhœa, codeine, exalgine, or butyl-chloral-hydrate is recommended; as a local application to a neuralgic ovary, extract of belladonna, 2 drachms, camphor, 2 drachms, mastich, 3 drachms, chloroform and tincture of aconite, 2 ounces of each; in congestive oophoritis, iodine, 1 drachm, mastich, 1 drachm, rectified spirit, 1 ounce, as a local counter-irritant.

As to surgical measures, the author thinks that displacements will shortly be ordinarily dealt with by Alexander's method, or by vaginal- or ventro-fixation. Other surgical measures are considered.

Clinical Notes on Cases of Beri Beri. By J. O. Affleck, M. D.—The author records six cases, and notes that in all cases but one the disease appeared in scafaring men; that each case presented characteristic features of a peripheral neuritis, and that in most of them there was some œdema of the legs. Infection occurred in one case in Brazil, in four on a vessel; the patients improved rapidly by simple treatment. Bacteriological investigation was negative.

Acute Infantile Intussusception, with Special Reference to Treatment by Primary Laparotomy. By W. Blair Bell, M. B.

Some Results of Antistreptococcus Serum. By F. J. Harvey Bateman, B. A., M. B.—The results are very indefinite.

Two Cases of Agarophobia Cured by Hypnotic Suggestion. By Charles Lloyd Tuckey, M. D.

A Case of Retroverted Gravid Uterus, with Remarks. By G. R. Fraser, Surgeon.

Philadelphia Medical Journal, August 11, 1900.

Some Incidents in the Evolution of the Modern Physician.—President's Address Delivered at the Sixty-eighth Annual Meeting of the British Medical Association. By Dr. William Alfred Elliston.—An article of a more serious import than the title would suggest, and one in which the really important stepping stones in medical progress during the century are marked. The Apothecary's Act (1815), The Anatomy Act (1832), The Medical Act (1858), are the chief legislative acts which have raised the standard of medical education; while the medical press, its growth, and influence upon the profession is also adverted to. Bright, Hodgkin, Gull, Addison, Jenner are all mentioned in order; while the advancement in surgery, more especially of abdominal surgery, is finely marked out.

Military Surgery. By Dr. W. C. Borden.

The Transmission of Tuberculosis through the Meat and Milk Supply. By John J. Repp, V. M. D.—Slightly tuberculous meat, if well cooked, is, according to this article, safe for food provided that the tuberculous tissues are eliminated. Meat from a highly tuberculous animal is unfit for food under all circumstances. Milk from a tuberculous udder is always dangerous unless well sterilized. Milk from a tuberculous cow with a healthy udder is sometimes dangerous unless well sterilized. Tuberculous cows may be kept for breeding purposes provided that they are isolated, even from their own offspring, and their products (query: calves?) sterilized before use. They may also be slaughtered for food provided the cooking is well done, and the tuberculous tissues eliminated.

The Surgical Treatment of Congenital and Pathologic Disfigurements of the Face. The Operative Treatment of Deformed or Deficient Ears. By Dr. John B. Roberts.

Two Cases of Paralytic Dementia. By Dr. W. K. Walker.

Puerperal Eclampsia. By Dr. J. B. Todd.

Pædiatrics, August 1, 1900.

Acute Dilatation of the Heart in Influenza of Children. By Dr. F. Forcheimer.

The Causation and Relative Frequency of Typhlitis, Perityphlitis and Appendicitis in Infancy and Childhood. By Dr. Joseph Henry Byrne.—This article is a short but interesting one. When the mesentery is long the appendix is likely to assume a position that is almost straight; but when the mesentery is incomplete the appendix may become curved or twisted, thus interfering with the circulation, and with the free drainage of the normal secretion. This, according to the author, is an important matter ætiologically. The appendix is larger in fœtal life, infancy and childhood than it is in the adult. It is smaller in woman, which fact, with its also increased vascularity (an anastomotic branch being given off from the region of the right ovary), confers on her a slight relative immunity. The increased power of absorption of the appendix in early life becomes an active predisposing cause of appendicular inflammation. Microorganisms, traumatism, foreign bodies, and exposure as possible elements in the causation of the disease are also considered in the paper; and an interesting case in which the author practised digital expression of the concretion is related.

A Case of Congenital Dislocation of the Wrist. By Dr. Philip Hoffmann.

Boston Medical and Surgical Journal, August 9, 1900.

Norfolk District Records and Reminiscences. By Dr. C. Ellery Stedman.

The Progress of Medicine. By Dr. Harold C. Ernst.—These addresses were delivered at the semicentennial meeting of the Norfolk District Medical Society, May 8, 1900.

Acute Dilation of the Heart in Influenza of Children. By Dr. Forcheimer.—According to the author's observations we are justified in assuming the existence of two forms of heart dilation in influenza: One presumably produced by the action of the toxine upon the nervous system of the heart and possibly upon the myocardium; the second form occurring in those cases in which outflow of the blood is materially interfered with on account of mechanical conditions. The first form, according to the excellent observations made by West, undoubtedly may end fatally, although this has not been the case in the author's experience. The second form is one that lasts much longer than the first, but in children has a tendency to recover.

The Medical Record, August 11, 1900.

American Medicine. By Dr. A. Jacobi.—The abstract of an address delivered before the Thirteenth International Medical Congress, Paris, August 2-9, 1900.

The Care of Patients During Surgical Operations; with Some Methods of Preventing Shock and Infection. By Dr. Fenton B. Turck.—This paper is written to give the results of forty experiments upon dogs and rabbits, and the author's conclusions. The gist of these latter is, that: 1. Bacteria found on and in the skin may produce infection during surgical operations and cause death. A state of lowered vitality or of shock increases the susceptibility to infection. 2. A rubber protector fitting close to the skin prevents the danger of infection from the skin and lessens the liability of contamination, while it is distinctly superior to the present method of towels and laparotomy sheets. 3. The peritonæum, despite the most careful precautions now in use, may become infected from the escape of visceral contents. 4. Many cases of death from shock are more probably due to infection. 5.

Exposed viscera should be protected by a rubber hood kept warm by rubber hot-water bags. 6. Manipulation of the viscera can produce susceptibility in an animal naturally immune, as also exposure of the viscera to air. 7. Heat at 48° or 50° C., within the abdominal cavity, renders less hazardous the exposure and manipulation of the viscera. Hot-water bags within the abdominal cavity prevent shock or collapse and are an excellent means of resuscitation where shock or collapse is present.

After-pains from Extraction of Teeth. By Dr. Charles B. Isaacson.

Medical News, August 11, 1900.

Vaccination Eruptions. By Dr. Jacob Sobel.

Chronic Enteritis and Tuberculous Enteritis, Treated with Hypodermic Injections of Arsenic. By Dr. Louis Kolipinski.—As a result of laboratory experimentation and clinical experience in this form of medication, the author concludes that the injection of from 1-64th to 1-32d of a grain of sodium arsenite, is safe, painless and effective. One, two or three injections per week will cure the milder cases. Other internal medication is avoided and the patient has no daily routine of dosing. Greater latitude of diet can be allowed without detriment. A number of selected cases follow and seem to substantiate these statements.

Anastomosis of Ureters with Intestine. By Dr. Reuben Peterson.

School Break-down. By Dr. J. Henry Bartlett.

The Automobile in Country Practice. By Dr. A. D. Hard.

Results of Two Hundred Operations on Insane Women. By Dr. R. M. Bucke.

The Journal of the American Medical Association, August 11, 1900.

Materia Medica, Pharmacy and Therapeutics. Address of Chairman. By Dr. Leon L. Solomon.

Section on Ophthalmology. Address of Chairman. By Dr. H. V. Wurdeman.

The Medical Profession. The Necessity of and Benefits from its More Complete Organization. By Dr. J. C. Bierwirth.

The Treatment of Acute Alcoholism by Large Doses of Digitalis. By Dr. Henry P. Loomis.—While the indiscriminate use of large [half-ounce] doses of digitalis in acute alcoholism is fraught with danger, the author believes that in the young, strong and robust cases, with no complications, or with violent delirium, the result of such doses will be exceptionally favorable. If, however, after three such large doses no narcotic effect is noted, the remedy should be discontinued. In the author's cases the failures were among the chronic alcoholics, the middle-aged, anæmic, and those with bad nutrition. As a rule (according to the author's experience) when the patients recovered and awoke from their sleep they were able to leave the hospital at once.

New Sources of Danger in the Use of Opium. By Dr. T. D. Crothers.—The facts which Dr. Crothers aims to make clear are: that (1) The condition of opium addiction is one of organic disease, whose origin is preventable by a study of the conditions and peculiarities of the person in early life. (2) The use of opium continuously may impress the organism and leave a diathesis and susceptibility to resort to it again in after life. (3) Where opium produces little if any irritant effect, there exists a predisposition to the formation of a habit. (4) When its poisonous effects are marked in the irritations and exaltations which follow its use, there is great danger of organic changes and diseases with fatal results. (5) The psychic element in these cases furnishes very suggestive hints of the derangements which follow the mental perversions, and gives some idea of the profound organic changes which take place.

Secondary Glaucoma. Three Cases. By Dr. Wm. Cambell Posey and Dr. Edward A. Shumway.

The Therapeutic Properties of the Suprarenal Capsule. By Dr. W. H. Bates.

Scrofulous Keratitis. By Dr. H. Gradle.

Fracture and Dislocation of the Spine. By Dr. S. P. Kramer.

Angina Pectoris. By Dr. Augustus A. Eshner.

Lancet, August 4, 1900.

Medicine as a Science and Medicine as an Art. By Philip H. Pye-Smith, M. D., F. R. C. P. [Vide *British Medical Journal.*]

The Surgeon in the Nineteenth Century. By Frederick Treves, F. R. C. S. [Vide *British Medical Journal.*]

A Case of Meningomyelitis, with Bacteriological Examination of the Spinal Cord. By George R. Murray, M. A., M. D., F. R. C. P.—The writer reports a case of this disease occurring in a man, single, who was admitted into the Newcastle Royal Infirmary January 3, 1899, with complete loss of power and sensation in both lower limbs. A month previous, while working for several hours at a fire, he became very much exhausted and his feet and legs were wet and chilled from the water spilled on them in passing buckets. Suddenly he was seized with severe pain in the lumbar region, and the legs and feet became cold and numb, which sensation persisted, though the pain was relieved, and was accompanied by steadily increasing loss of power until at the end of a week both legs were completely paralyzed. Paralysis of the bladder and rectum followed. Soon after his admission the paralysis extended, his general condition grew worse, and death occurred on January 27th, seven weeks and a half from the onset of his illness. A full post-mortem was not allowed, but the spinal canal was opened and the cord removed. Stroke cultures were made on agar-agar and serum-agar tubes from lymph on the outer surface of the dura mater, from the surface of the pia mater, and from the substance of the cord. Sections of the cord were also made and stained with picrocarmine and then by Weigert's modification of Gram's method. Small oval bacilli with bipolar staining were seen. All the tubes developed cultures of the same bacillus, which in the hanging drop was seen to be mobile. Subcutaneous inoculation of a pure culture caused rapid general infection and death in a guinea-pig and local infection in a rabbit. The organisms found differed from that found by Buzzard and Russell, being a bacillus with bipolar staining and not a diplococcus. The author concludes that the evidence at present in our possession indicates that acute meningomyelitis is probably an infective disease, and, although it cannot as yet be attributed to any single organism, the bacteria which have been found in recorded cases appear to have certain characters in common.

A Blood Reaction in Diabetes Mellitus; its Cause and Diagnostic Value. By R. T. Williamson, M. D., F. R. C. P.—The writer describes a blood reaction which he previously recorded in 1896. The experiment consists in placing in the bottom of a small test-tube 40 cubic millimetres of water, to which is added 20 cubic millimetres of blood taken from the finger of the diabetic patient, one cubic centimetre of a watery solution of methylene blue (1-6,000), and finally 40 cubic millimetres of liquor potassæ (B. P.). The mixed fluids have a deep blue or bluish-green color. If the tube is now kept in boiling water four minutes, the color will change to a dirty yellow. The value of this reaction consists in the fact that it may be obtained in diabetic coma, where it may be impossible to obtain any urine, and that the blood retains its properties for several hours after death. Post-mortem, the blood should always be taken from the internal jugular vein.

Ætiology of Scurvy. By W. E. Horne, B. Sc., M. D. —The writer, who is a ship surgeon and has had practical experience with this disease, takes the ground that scurvy is essentially an infection of the mouth with micro-organisms out of decayed food, and the antagonizing effect of lime juice, fresh vegetables, etc., is due to their antiseptic action.

On the Limitation of Physical Methods in the Investigation of the Physiological and Psychical Phenomena of Sight. By F. W. Edridge-Green, M. D., F. R. C. S.

Some Remarks upon the Technique of Operations Designed to Cure Radically Oblique Inguinal Hernia. By Frederick D. Bird, M. S.—The writer advocates the smallest skin incision possible, which should be made an inch above Poupart's ligament and rather over the site of the internal ring than the external, so as to bring the scar on the abdomen and not in the groin. The deep layer of the superficial fascia should be stripped off only so far as is necessary to expose a line in the aponeurosis of the external oblique which seems to invite separation. The aponeurosis should be separated or divided at least half an inch from Poupart's ligament, leaving a good fringe of fibrous tissue for the insertion of deep sutures. The fibres of the external ring should always be preserved if possible. Any cutting of the fibres of the internal oblique must be avoided. The sac should be attacked from above and behind, carefully eliminated from the cord and tied with catgut just below the point where it is becoming parietal peritonæum. It is not necessary to transfix the sac if it is small and thin, if the internal ring is in proper position, and if the muscular curtain of the internal oblique is sufficient. The whole operation should be done with as little cutting as possible.

British Medical Journal, August 4, 1900.

Some Incidents in the Evolution of the Modern Physician. By William Alfred Elliston, M. D. [The president's address delivered at the sixty-eighth annual meeting of the British Medical Association.]

Medicine as a Science and Medicine as an Art. By Philip H. Pye-Smith, M. D., F. R. C. P. [The address in medicine at the annual meeting of the British Medical Association.]

The Surgeon in the Nineteenth Century. By Frederick Treves, F. R. C. S. [The address on surgery at the annual meeting of the British Medical Association.]

Introductory Remarks. By Howard Marsh, F. R. C. S. [Delivered at the opening of the Section of Surgery.]

Some Problems in Rural Sanitation. By John C. Thresh, M. D., D. Sc. [Introductory remarks delivered at the opening of the Section of State Medicine.]—The speaker called attention to the fact that, while in all countries the population of the towns and cities is rapidly increasing, that of the rural districts is diminishing. Urban sanitation has advanced with the growth in population, so that nearly every house is efficiently drained and abundantly supplied with pure water. On the other hand, in villages and rural districts nuisances from the improper disposal of filth abound on every side, and the water supplies are too often unsatisfactory in quality as well as quantity. Unless some of these problems were met, the rural population would still further decrease in proportion to the urban, and the question of food supply would become a very serious one.

Bacteriology in Relation to Pathology. By E. E. Klein, M. D., F. R. C. S. [Introductory remarks at the opening of the Section of Pathology.]—The speaker stated that pathology, in its analysis of the nature of the tissue changes, had been influenced to a considerable degree by the progress made in bacteriology within the last two or three decades. Three striking examples of this influence have been: 1. *Inflammation,* in which it has been shown that the chief causes of the vascular changes in the tissues, including suppuration, are micro-organisms, which by their growth and multiplication produce toxines which set up the phenomena of inflammation either generally or locally. The greater or lesser number of leucocytes in inflammatory foci seem to be explained satisfactorily by the phenomenon of chemotaxis. While some microbes and their toxines powerfully attract leucocytes from the blood and connective tissue, others have no such effect, or possess even the reverse property, viz., that of producing negative chemotaxis. 2. *Necrosis,* illustrated by the action of the diphtheria and other pathogenic microbes in the production of a necrosis which is not local and circumscribed like that produced by non-microbic inflammation, but progressive, spreading into larger and larger areas and involving one tissue after another. 3. *Specificity of Cell Secretion.*—The specificity of cell secretions has been considered one of the fundamental phenomena of physiological or normal tissue. But it has been proved that under the activity of pathogenic bacteria and their toxines the cells will produce specific antitoxines, demonstrating that under changed conditions the secretion of the cells may differ from the normal.

The Teaching of Pharmacology. By Walter G. Smith, M. D. [Introductory remarks delivered at the opening of the Section of Pharmacology and Therapeutics.]

Introductory Remarks. By Colonel Kenneth Macleod, M. D. (Ret. I. M. S.) [Delivered at the opening of the Section of Tropical Diseases.]

Treatment of the Wounded at Sea. By Inspector-General Belgrave Ninnis, M. D., R. N. [Introductory remarks delivered at the opening of the Section of the Navy, Army, and Ambulance.]

L'Indépendance Médicale, August 1, 1900.

Nutritive Enemata.—M. J. Thiénot considers nutritive enemata of great value in all conditions in which it is desirable or necessary to rest the upper gastro-intestinal tract. The patient must receive the clyster in the recumbent posture and must remain lying until the enema is obsorbed. Beef-juice, oils or fats finely emulsefied by the use of liquid pancreatin, and peptones, are the most easily absorbable substances in the large intestine. Peptonized milk and somatose may also be administered in this way.

La Presse Médicale, July 28, 1900.

Bloodless Reduction of Congenital Dislocation of the Hip.—M. F. Brun and M. Ducroquet report a number of successful instances of this manoeuvre with gradual but complete restoration of function. The most favorable time to perform the operation is between the third and the sixth years; before three, there is great difficulty in retaining the femur in place, after six it is doubtful if the manoeuvre can be successfully accomplished. Double luxations are the most difficult to treat, but they can be best treated by operating on each joint at a different time, for although the treatment is thus prolonged, the re-establishment of function is much easier to achieve and is accomplished much more rapidly.

July 30, 1900.

Infantile Diarrhœa.—M. A. B. Marfan, in cases of severe choleraic diarrhœas in infants, gives no medicine by mouth for the first few days, but orders a diet almost exclusively of water, gives subcutaneous injections of artificial serum with or without caffeine as a heart stimulant, and administers warm baths. The children are given, for the first twenty-four or forty-eight hours, all the pure water they care to drink, at least as much as will replace the milk they are accustomed to take. The water causes a disappearance of the gastro-intestinal fermentation and putrefaction, vomiting ceases, diuresis is maintained, dehydration of the tissues, which is always marked, is prevented, and sleep promoted. The baths are given at a temperature of from 85° to 90° F. from two to four times a day for five or ten minutes at a time. They serve mainly to reduce temperature and to quiet the nervous system. Tannigen is given after the third day, if it is necessary to use a drug to stop the diarrhœa.

Le Progrès Médical, July 21, 1900.

Dental Caries.—M. Henri Roché says that multiple dental caries can not be ascribed alone to bacteriologic invasion, but that, in those persons who lose from six to fifteen teeth in a few months, some general cause must be sought. This will usually be found to be some grave disorder of nutrition. The treatment must, therefore, be not only local, but must be directed against the constitutional disturbance as well.

Gazette hebdomadaire de médecine et de chirurgie, July 22, 1900.

Surgical Treatment of Myopia.—M. Pierre Dolbeau writes commendatorily of the extraction of the lens for extreme myopia, preferring immediate extraction to discission. He urges great caution in the performance of the operation as well as in the selection of cases. He advises against it in professional people, or when vision can be corrected by glasses. The operation should not be undertaken before twelve years of age nor after forty, nor when there is good vision in one eye.

Pain in Muco-membranous Enterocolitis. — M. Froussard says no mistake in diagnosis can be made when the pain in the abdomen is general. It always disappears after the free purgation but it may recur. The abdomen is soft, there is no cutaneous hyperæsthesia nor muscular rigidity. Palpation of the colon is always painful during the crises, the pain is acute and extends along the colon. The pain of intestinal obstruction is more acute and more constant, absolute constipation is the rule and the symptoms of shock are present. In dysentery, the character of the stools, the dysuria and vesical tenesmus are characteristic symptoms. When the pain is sharply localized, a diagnosis must be made between renal colic, hepatic colic, typhlitis, typhoid fever and appendicular inflammation. Each of these disorders has symptoms so characteristic of itself, which the author records in detail, that he believes that, ordinarily, a diagnosis will not be difficult after the patient has been observed a sufficiently long time.

Archives de Médecine des Enfants, August, 1900.

Biology and Pathogenesis of Thrush.—M. Luigi Concetti has made a thorough experimental study of the oidium albicans. He finds it beyond doubt to be the ætiological cause of thrush. (*To be continued.*)

Fatal Case of Chorea.—MM. J. Hallé and G. Langevin report a fatal case of chorea in a child ten and a half years of age. They regard it as rare for a child over two years of age to die of chorea. The patient had an attack of acute mania with hallucinations in the course of his illness. The autopsy did not show the usual lesions of chorea, the thymus only being found enlarged. Sepsis is supposed to have been the cause of death, streptococci having been found in the blood, which probably entered through abrasions in the skin or the mucous membranes. This fact emphasizes the need of caution in keeping wounds of the skin or mucous membranes in these little patients scrupulously free from contamination.

Peculiarities of Scarlatina.—M. E. de Arca reports three cases of scarlatina which were characterized mainly by tonsillar enlargement.

Archiv für pathologische Anatomie und Physiologie (Virchow's), July 7, 1900.

Eosinophilic Leucocytes in Tumors.—Dr. E. Feldbausch finds leucocytes which are eosinophilic in tumors but does not believe that they are of phagocytic origin. He believes they are part of the tumor cells themselves, especially as they appear in tumor masses in which there has been no hæmorrhage.

Critical Remarks on Koch's Malaria Expedition.—Dr. J. H. F. Kohlbrugge, in reviewing the work of Koch's expedition to Java for the purpose of studying malaria, emphasizes his position by citation from Koch's reports, that the mosquito bite alone is not sufficient for malarial inoculation. For instance, in Tosari and Poespo, the anopheles abounds, but these districts are free from malaria. He combats the view that residents of malarial districts in the tropics can become immune to the disease in a few years, which Koch himself fails to prove. The author believes frequent change of climate essential to a complete elimination of the disease.

Hydronephrosis with Chyle-like Contents.—Drs. Koblanck and Pforte report such a case which was cured by operation. The microscopic examination of the wall of the cyst showed that it was probably formed by neoplastic cystic dilatation of the urinary tubules.

Endothelial Neoplasms. By Dr. L. W. Ssobolew.

A Case of Osteoid-chondrosarcoma of the Bladder. By Dr. R. Bencke.

Histology of Striped Muscle on the Border of Malignant Growths. By Dr. Akira Fujinami.

Muscle-tissue in Leprosy and Hyperchromatosis of the Muscle Nuclei. By Dr. Akira Fujinami.

The Mechanics of Expectoration. By Dr. Geigel.

Macro- and Micro-chemical Reaction in Fat Necrosis. By Dr. C. Benda.

Wiener klinische Wochenschrift, July 26, 1900.

Glycerin as a Constituent of Antiseptics.—Dr. Oscar von Wunschkeim concludes from experimental studies that carbolic acid dissolved in pure glycerin loses its antiseptic properties unless the acid is at least of ten-per-cent. strength. If it is used in five-per-cent. solutions in glycerin, it has no antiseptic virtues unless the glycerin is diluted with water. The author does not know whether this peculiarity rests upon a chemical or a physical basis.

Artificial Termination of Pregnancy.—Dr. Josef von Braitenberg reports on twenty-two cases in which the pregnancy was interrupted for various reasons, mainly on account of contracted pelvis. He says no one method is suitable for all cases, but he prefers Krause's method (intrauterine bougie) in cases of pelvic deformity. Perforation of the membrane is his next choice as being of less danger to the mother than other procedures. The use of the colpeurynter is the method to be chosen, however, in cases of severe hæmorrhage and eclampsia.

Ferropyrine as a Hæmostatic.—Dr. E. Toff reports that ferropyrine, a double chemical compound of ferric chloride and antipyrine, is an admirable hæmostatic agent, free from irritation or sequelæ. It is especially useful in uterine bleedings. Internally, it is useful in neuralgias and cephalalgias of anæmic origin.

August 2, 1900.

Total Exclusion of the Intestine.—Dr. Erwin Page reports a case of a man with a fæcal fistula which followed an operation for a psoas abscess. He first performed an ilio-colostomy, choosing the transverse colon for the insertion of the ileum. Subsequently he made an axial junction (anastomosis in continuity) of the colon with the ileum, excluding a large portion of the ileum and the entire ascending colon. The patient made a perfect recovery. (*To be continued.*)

Paraphenylendiamine Poisoning.—Dr. Emil Pallak reports a case of this kind in which the patient was using the preparation as a hair-dye. The entire area on which it had been used was the seat of violent eczema; there were a hypersecretion of tears and an exaphthalmos and œdematous lids. The urine was negative. These symptoms gradually disappeared. The author draws attention to the cumulative effects of preparations of this kind.

Treatment of Necrotic Acne. By Dr. Friedrich Luithlen.

Wiener klinische Rundschau, July 29, 1900.

Psychoses in Chorea.—Dr. von Krafft-Ebing divides the mental disturbances appearing in chorea into groups: 1. Cases of degenerative disturbance the exacerbations of which are often accompanied by choreic or amulsive anomalies of movement; 2. lymphatic posthemiplegic chorea with distinct focal brain disease; 3. imitative chorea or anomalous movements evoked primarily by psychic or traumatic insults; these are mainly hysterical; 4. cases of Huntington's chorea, which the author believes to be analogous to paralytic dementia; 5. senile chorea; 6. Sydenham's chorea, which may be characterized by elementary psychic disturbances, by flecting, light delirium, by the symptoms of profound neurasthenia, by stupor and dementia, or by complicating psychoses of the severest form.

Architecture of the Human Ulna. By Dr. E. Albert.

Treatment of Umbilical Infections.—Dr. Theodor Eschcrich advises, as a result of his experience, the removal by the actual cautery of the stump of a suppurating umbilical cord which does not readily come away. This prevents further infection—especially by the tetanus bacillus—and makes no new wound as the scissors or knife does.

Deutsche Medizinal-Zeitung, July 30, 1900.

Gastric Atony as a Symptom of Phthisis.—Dr. Volland writes a controversial paper on this subject.

August 2, 1900.

Medico-legal Aspect of Death from Burns.—Dr. Lipkau discusses in this introductory paper the various views as to the cause of death following extensive burns—inhibition of the cutaneous functions, sepsis, ptomaine poisoning, the evolution of an organic poison, etc. (*To be continued.*)

Baths in Menstrual Anomalies.—Dr. Müller de la Fuente recommends the warm baths and quiet restfulness of Schlangenbad as almost a specific for amenorrhœa, dysmenorrhœa and menorrhagia. The change in the patient's life habits he believes to be as beneficial as the baths.

Wiener medizinische Blätter, July 19, 1900.

Respiratory Passages in their Relation to other Diseases.—Dr. Eugen Felix concludes his paper by referring to the manifestations of disease of the upper respiratory organs caused by tuberculosis and syphilis. He mentions in detail, also, lesions of these passages which accompany organic nervous disease.

Honthin, Intestinal Astringent.—Dr. J. W. Frieser writes in a commendatory way of this new drug in catarrhal and in inflammatory intestinal conditions. (See *New York Medical Journal,* July 14, 1900, p. 79.)

July 26, 1900.

Clinical Varieties of Diabetes.—Dr. W. Pavy writes an introductory chemical paper on diabetes. (*To be continued.*)

Globon.—Dr. Wilhelm Meitner says that globon is a nutritive product which is easily digested, is tasteless and is exceedingly stimulating. It is useful in all forms of nutritional weakness and malassimilation, as well as in gastric disturbances. He recommends its use as an albuminous food in sickness, in convalescence and for brain-workers.

Literature of 1899 of Gastro-intestinal Disorders. By Dr. H. Keller.

Gazzetta degli ospedali e delle cliniche, July 22, 1900.

Concerning Skin-grafts. By Dr. Pietro Pezzolini.—The author studies the vitality of epithelial cells of the skin when detached from the body, and sums up his findings in the following conclusions: (1) Portions of skin that have been kept in a physiologic salt solution for six days can be transplanted with good results. (2) After having been kept for ten days in normal salt solution at a temperature of from 10° to 15° C., some of the epithelial cells are still capable of mitosis. (3) The same is true of bits of skin that have been kept for eleven days, at a temperature of 0° C. This shows that low temperatures are favorable to the preservation of the vitality in the epithelium. (4) The pieces of skin that were preserved dry perished much more rapidly than those that were kept in salt solution.

Two Cases of Malignant Pustule Cured with Sclavo's Serum. By Dr. Adolfo Liscia.—The first of these cases was very severe, and the author believes firmly that the patient could not have recovered without the help of the anti-anthrax serum. In this case there was persistent vomiting, a symptom which is considered to be of very grave prognostic significance; the pulse was almost imperceptible, and the patient was in the typhoid state. At this point the serum was injected. About one hundred cases of anthrax in which Sclavo's serum was used are now on record. Of these all but two recovered. These two fatal cases exhibited the serious symptoms that were observed in this patient, and hence the case is noteworthy as showing the possibilities of serum therapy in anthrax. The second case showed that the general as well as the local manifestations of anthrax infection disappear rapidly under the influence of the serum.

Floating Liver. By Dr. N. B. Fortcleoni.—The patient was a woman aged fifty-five years, multipara. Her labors had all been very difficult. The first symptoms were acute pain in the right hypochondrium and vomiting of food. In the hepatic region the author found a tumor extending two or three fingerbreadths below the umbilicus, doughy on palpation, with a smooth surface and sharply defined margins. On percussion the region of the mammary and axillary lines between the sixth rib and the free border of the ribs was tympanitic instead of dull. The liver was not increased in size. The only anomaly was the weakness of the ligaments of the liver, especially of the falciform ligament. Difficult labors and severe physical exertion were the probable causes of the displacement of the liver downwards. The only treatment was the maintenance of complete rest until the symptoms subsided and the wearing of an abdominal band to support the displaced liver.

Tuberculous Lesions of the Skin. By Dr. E. Leonardi.

New Views Concerning Intestinal Worms. By Dr. Prospero Dematteis.—Toxic substances obtained from the bodies of ascarides and injected into rabbits caused the death of these animals in from 58 to 76 hours, showing that these worms generate toxines in the bodies of human beings affected with helminthiasis. The emigration of ascarides from the intestine through the anus or through the mouth has been frequently observed during a febrile movement, and experiments conducted by the author showed that high temperatures stimulated the motility of the worms, and thus they passed out of the body when an attack of fever came on. The writer emphasizes the liability of intestines the site of ascarides to lesions from the activity of the worms, and states that a bacteriologic examination of the contents of the intestinal tracts of these worms showed that they harbored such germs as the bacillus coli, proteus, staphylococci and streptococci. The nematodes in particular are capable of causing lesions of the intestine by mechanical and toxic irritation, and thus the germs may find entrance into the system of the patient.

Suture of the Patella. By Dr. S. Giucciardello.

Riforma Medica, July 14 and 16, 1900.

Histologic Researches Concerning the Changes in the Organs of Hibernating Animals. By Dr. L. Baroncini and Dr. A. Beretta. (*Continuation.* See *New York Medical Journal* for May 26, 1900, page 834.)—This article deals with the microscopic changes in the heart of the European dormouse (*Myoxus avellanarius*), a mammal of the family of *myoxidæ,* and of two species of bats (*Vespertilio* and *Vesperugo*) during the period of hibernation. The authors found that in the dormice and bats that were killed during the state of torpor the heart continued to beat for several hours after death, while in those that were killed after hibernation it stopped at the instant of death. There was no difference in the microscopic changes between the hearts of the dormice and those of the bats. The myocardium was the seat of marked fatty degeneration. The deposit of fat was uniformly distributed throughout the heart muscle, the droplets appearing as a series of dots along the muscular fibres. At a later stage of hibernation in addition to this infiltration there was fatty degeneration of the muscular fibres proper. The nuclei were not changed, but the cell protoplasm became slightly opaque, masking the typical structure of the myocardial muscle. At the end of hibernation the cells resumed their normal appearance. The amount of fat diminished as the period of hibernation advanced. The authors do not say definitely whether this fat is simply a reserve fund of energy stored up and used during hibernation, or whether the changes should be regarded as a true degeneration.

July 17 and 18, 1900.

Cyclic Abulia of Psychasthenic Origin. By Dr. C. Ferrarini.—The author considers the cyclic loss of willpower described by Leuret under the name of abulia. He reports a case of this syndrome in which the abulia recurred in periodic attacks. The patient was a peasant aged forty-seven years, apparently in vigorous health. For several years he had noticed that at intervals a strong disinclination for work would overcome him and he would remain in a condition of apathy until the attack was over, and then resume his occupations. At such times he would remain motionless for hours, paying no attention to anything, and even not eating unless forced to do so, and this sometimes when he had pressing agricultural duties to perform. In spite of all efforts of his will to overcome this torpor, he did not succeed in rousing himself from the condition of lethargy. These attacks came on at regular intervals of twenty-four hours, so that the patient would have an active day followed by a day characterized by mental and physical apathy. The patient's heredity was neuropathic. Physically he was in robust health, but somewhat of a hypochondriac. A periodicity in the attacks of abulia has not been noted before, so far as the author knows. The basis of these phenomena is a condition of nervous and psychic asthenia.

My Method of Treating Chancre. By Dr. Leone Levi.—The author describes the treatment of hard chancre by cauterization with the galvano-cautery, and asserts that he can abort syphilis by this means. He says: "When the (local) treatment is completed, I obtain the desired result, *i. e.*, the syphilitic infection which the patient had contracted remains confined to the locality, and does not spread any longer into the general economy; in other words, the disease remains reduced to a local infection, and therefore we no longer have constitutional syphilis with all its consequences." He leaves the explanation of the rationale of his method to the pathologists, and reports that he has used this new method in thirty-two cases with unquestionable success. The technique is as follows: An injection of cocaine is given five or ten minutes before the application of the cautery. The latter is then heated to a white heat and the whole area of the chancre is cauterized. A sero-sanguinolent fluid exudes from the cauterized surface. The parts are dressed with absorbent cotton and the cautery applied daily, as long as necessary, according to the tolerance of the patient. After cauterization the chancre becomes larger and harder, and may reach twice or three times its original size, but no inflammatory signs are seen around the sore. The cauterization is accompanied by a moderate pain of very short duration. These cauterizations are continued for a month, or longer, until an acute inflammatory process is noted in the ulcer. This inflammation may last two or three days, and ends in a healing of the ulcer which becomes complete in about a week. The writer also reports cases in which the inguinal glands were already swollen. In these also he has been able by this method to abort syphilis, for the swelling and induration of the glands disappeared under the local treatment of the chancre.

Vratch, July 1, 1900. (July 13, N. S.)

A Method of Counting the White Cells in a Measured Quantity of Dry Blood. By Prof. Kourloff and Student Solovieff.—In the ordinary method of counting white cells with the Thoma-Zeiss apparatus the enumeration must be done as soon as the blood is obtained, and therefore usually hastily, and the result of any particular examination can never be verified in the future. The diluent changes some white cells, and some of them perish in the process of preparing the blood for the counting. These disadvantages are absent in dry specimens; for even if some of the cells are destroyed in the preparation of the specimen, they leave shadows upon the slide that can easily be recognized. The method devised by Kourloff and tested by him in conjunction with Solovieff is as follows: Four or five cubic millimetres of blood are drawn directly from the finger into a graduated mixing-pipette, and immediately blown upon a slide. Two dry coverglass-specimens are now prepared and stained in the usual way, and their area measured by means of a network of lines. The white cells are then counted on both coverglasses and the area examined is measured by means of the movable stage and Ehrlich's diaphragm. From the figures thus obtained the number of cells in the whole specimen is calculated, and from this result the number of white cells per cubic millimetre is determined, the volume of blood used being known. The authors have also devised a pipette for drawing the required amount of blood. This consists of a graduated glass tube to the upper end of which is attached a short rubber tube. A special clamp, consisting of two little metallic wheels between which the rubber is compressed is placed on the latter at a short distance from the end of the glass pipette. By turning the wheels with the thumb the rubber tube is elongated and the blood enters the capillary tube. It is best not to blow out the entire quantity of blood in the pipette, because if this is done some air will get into the drop on the coverglass and prevent the successful counting. The amount of blood that remains in the capillary tube is to be subtracted from the amount first drawn into the pipette. Care must be taken that the film of dry blood is thin and evenly spread over both coverglasses. The writers assert that they could count from one to two thousand more white cells by this method than the same specimens of blood showed by the old method in the Thoma-Zeiss cell.

Concerning the Question as to the Contagiousness of Tuberculosis. By Dr. D. N. Jbankoff. (*Concluded.*)—The author's conclusions are as follows: (1) The contagiousness of pulmonary tuberculosis cannot be considered as a demonstrated fact. Laboratory experiments do not apply to man unconditionally, while the weight of clinical evidence speaks against the contagiousness of this disease. In reply to his inquiry, No. 71, five per cent. of physicians declared themselves against the contagion theory. (2) The fear of pulmonary tuberculosis has an injurious effect upon the family and the community as well as upon the patient himself, and brings the latter to the verge of suicide. (3) The measures now adopted against the spread of pulmonary tuberculosis tend to increase this fear and to destroy, not only Koch's bacillus, but also the tuberculous patient. Some of these measures can never be enforced, for example, the prohibition of marriages between consumptives; exclusion from schools, public places, and general hospitals; wearing of special masks; punishment for expectorating on the street, etc., and castration of tuberculous men and women. (4) These measures are only cloaks for the helplessness of the medical profession in the treatment of the disease. (5) There is no doubt that heredity and bad sanitary surroundings are the chief factors in the causation of pulmonary tuberculosis. The former is the chief cause in young persons, the latter in older persons. (5) The medical profession, therefore, must take active measures to prevent the spread of the fear of tuberculosis.

Concerning Hæmorrhages into the Joints in Hæmophilia. By Dr. I. R. Manteufel. (*Continued.*)—The patient was a boy who had had frequent hæmorrhages from the gums before the present illness set in. Without any apparent cause his left knee became swollen, but the swelling soon disappeared without any treatment. Subsequently the swelling reappeared, the joint became painful, and there was a rise of temperature. The joint was incised and some bloody serum mixed with pus was withdrawn. The knee remained ankylosed in flexion at right angles. The right knee, ankle, and shoulder became successively involved. On superficial examination this case resembled tuberculous arthritis. The right elbow finally became swollen and the skin showed several spots of ecchymosis. This decided the diagnosis in favor of hæmorrhage, and a puncture with a hypodermatic needle showed the presence of blood in the joint. These hæmorrhages are more frequent in the young and in the male sex. The patients usually show a marked pallor of the mucous membranes. (*To be continued.*)

Concerning the Question of Gunshot Wounds of the Skull. By Dr. V. E. Meister. (*Continued.*)—The author gives the history of a patient who had received a gunshot wound in the right temple, the bullet emerging almost exactly in the middle of the forehead. An incision into the skin between the two wounds showed that the frontal bone had been fractured, and that some of the fragments had become lodged in the brain substance. The crushed brain substance and the splinters of bone were removed and the patient recovered in spite of the fact that he remained unconscious for three days after the operation.

Miscellaneous.

Summer Diarrhœa and Street Scavenging.—The *British Medical Journal* for July 28th, commenting editorially on summer diarrhœa in London, says that a good deal has been learned with regard to the chief causes of this annual outbreak, and no doubt much good may be done by attention to the milk supply and to the domestic sterilization of milk used for infants; but it recalls the opinion expressed by Dr. Waldo in his Milroy Lectures before the Royal College of Physicians of London this year, that one of the contributory causes of epidemic diarrhœa, in London at least, is the scandalously inefficient scavenging of streets. The matter is one, says the *Journal*, to which the attention of municipal authorities might profitably be directed with the view of instituting a systematic inquiry upon a scientific basis into the relation between the fouling of the air and soil and the prevalence of epidemic diarrhœa, especially in infancy.

Ungual Striation.—Treves (*Giornale dell' Academia de Medicina di Torino,* April; *British Medical Journal,* July 14th), after examining the nails of some 800 persons, mostly mental cases, finds clear evidence that in addition to the transverse striations found in the nails after illnesses, there is a peculiarly abundant and regular transverse striation which may be observed after attacks of periodic mental trouble. It is in psychoses of the periodic type that this transverse striation is especially well marked.

Carbonic Acid Gas Baths.—The *Medical News* for July 28th says that the use of carbonated baths has not yet become as general as the therapeutic properties of this method of treatment justify. As an eliminant the carbonic acid gas is of great service even in acute uræmia. It should be used at a temperature of about 100° F. Dr. William H. Thomson has seen it reduce temperatures very effectively in scarlet fever. The Brand method of treatment is of service in scarlet fever, but is not so good as the Nauheim, where the carbonated baths can be readily provided.

The Ætiology and Nature of Puerperal Sepsis.—The communication upon this subject presented by M. Doléris (*Résumés des Rapports présentés à la Section d'Obstétrique*) to the Thirteenth International Medical Congress, says that the ordinary pathogenic organisms of puerperal septicæmia are streptococcus pyogenes, staphylococcus aureus, the gonococcus, the bacterium coli commune, etc., to which, as recent researches among the anaërobes show, must be added the bacillus putridus and some others. From this it is concluded that certain anaërobic saprophytes may develop and act as veritable pathogens, especially in retention of the placenta. The concurrence of various kinds tends more surely to infection. Death commonly results from toxæmia. The lesions lead equally to death, notably in subacute peritonitis, by nervous inhibition or intestinal obturation. The staphylococcus may kill by grave visceral metastases to the pericardium, pleura, kidney, etc. The demonstration of the pathogenic action of certain putrefactive saprophytes leads to the discussion of autogenetic infection. Autogenesis has recently received a special interpretation whereby pathogens pre-existent in pathologic vagino-uterine secretions must not be considered as saprophytes; and as the term autogenetic infection can only be properly applied to that dependent upon saprophytes, it follows that its existence must be disputed. But that is only one interpretation. The clinic is forced to admit the revivification in situ of these pathogens pre-existing in the uterine neck and the tubes, and the possibility of the generalization of such an infection after accouchement without the fresh access of pathogenic microbes from outside.

The Ætiology and Nature of Puerperal Fever.—Dr. Menge and Dr. Krönig (*Résumés des Rapports présentés à la Section d'Obstétrique*) in their communication upon this subject to the Thirteenth International Medical Congress, after enumerating the pathogenic organisms as in the report of M. Doléris, to whose list they add the Bacillus diphtheriæ, the Diplococcus pneumoniæ, and "certain bacteria which necessarily develop without oxygen, but are not yet known as regards their biological properties," say that puerperal infection with these bacteria may be heterogenous or autogenous. By autogenous puerperal infection is to be understood an infection with pathogenic bacteria which have existed previous to the labor in a saprophytic state on the external genitalia or in the genital tract of the woman, and which, during, or immediately after, accouchement, invade the organism by the puerperal route and injure it. By heterogenous puerperal infection is to be understood an infection with pathogenic bacteria carried in the air, by the instruments of the accoucheur, or on the hands of those attending the accouchement, to the puerperal wound, and thus injure the organism. Gonorrhœal puerperal fever, having as its starting point a urethral, vaginal or cervical gonorrhœa, ought not, any more than other infections of the puerperal wound coming from the blood or infectious foci situated upon the external or internal genitalia before the accouchement, to be counted among autogenous puerperal infections, because, in this case, the saprophytic character of the infective agent does not exist; it is a matter simply of the extension of an infectious process pre-existing in the body. Since the streptococcus pyogenes puerperalis, the streptococcus pyogenes aureus, the bacterium coli commune, Neisser's gonococcus, the bacillus diphtheriæ and the diplococcus pneumoniæ do not exist in a saprophytic state in the vaginal secretions of pregnant women, an autogenous infection by these bacteria cannot have as its starting point such secretions. An autogenous infection of puerperal fever by obligate anaërobic bacteria coming from the vaginal secretion is improbable. But it cannot yet be rejected with certainty because it is not yet possible to distinguish the anaërobes of puerperal fever from the saprophytic anaërobes of the vaginal secretion of pregnant women from the point of view of their biological properties. From clinical observation, the authors consider rare and of favorable prognosis autogenous puerperal infection by pathogenic bacteria which have existed as saprophytes upon the skin of the external genitalia. Pathogenic bacteria from the skin of the external genitals may penetrate after the accouchement into the cavity of the puerperal uterus. An autogenous puerperal infection by bacteria which have lived saprophytically in the cervical canal or in the cavity of the uterine body or in the tubes, must certainly be rejected, for these organs never contain organisms in a saprophytic state. As against autogenous infection, heterogenous puerperal infection has the greatest importance. Among the factors of infection it is necessary to attach very great importance not only to the virulence of the infective germs, and to the predisposition of the individual infected, but also to the quantity of the infecting agents. From this point of view, the air which is poor in germs hardly plays a part in the germination of a heterogenous puerperal infection. When the obstetrical instruments have been sterilized, the hands of the attendants become the essential carriers of the infectious agents. We encounter to-day insurmountable difficulties when we try to determine the degree of virulence of the bacteria which play a part in puerperal fever. We can only consider it as demonstrated by experience, that in general the virulence is lowered when the bacterium in question has been compelled to live for a long time in a saprophytic condition. General predisposition to puerperal infection apart, a local predisposition seems to exist in the case of insufficient hæmostasis in the genital tract or in the case of extended lesions of the genital organs. The primitive infective focus may be situated in wounds of the perinæum, the vagina, the cervix, or in the entire endometrium, to remain localized there, or to extend by continued or by metastatic infection. This extension is produced most often when the endometrium and the placental wound are infected; more rarely, the infection starts from infected wounds of the cervix; most rarely of all from infected wounds of the vagina and perinæum. In the propagation of infectious microbes in the organism the blood and lymphatic vessels are also occasionally used. The streptococcus pyogenes aureus has the greatest tendency to overstep the limits of the primitive focus, nevertheless the greater part of cases of infection by the streptococcus are limited to the endometrium, and cure themselves.

Book Notices.

Contributions from the William Pepper Laboratory of Clinical Medicine. University of Pennsylvania. Philadelphia, 1900. Pp. 5-17 to 479.

THE volume before us bears, as a frontispiece, a fine engraving of the late Dr. Pepper, and is dedicated to his memory. The table of contents reads almost like the list of contributions to a "Festschrift." Dr. Spiller contributes two papers on Nerve Anatomy, Dr. McCarthy one on Iron Infiltration in the Ganglion Cells, and one on Forced Movements Due to Cellular Degeneration of the Cerebellum Following Rattlesnake Poisoning, and Dr. Stengel has an article On the Pathology of the Erythrocyte. Dr. Taylor writes on Leucæmia, and he and Dr. Frazier contribute an article on The Blood Plasma after Intravenous Saline Infusion. Dr. Sailer has three papers—two on pathological subjects and one on a case of sulphonal poisoning (with Dr. Taylor). Dr. Woodward describes a method for the estimation of breast-milk proteids, and Dr. Walsh writes on the Czaplewski-Hensel bacillus of whooping-cough. Altogether, the volume offers a striking evidence of the kind of work that is being done in the Pepper Laboratory, the kind that is bringing American medicine to the front rank of scientific achievement.

A Manual of Obstetrical Technique, as Applied to Private Practice. With a Chapter on Abortion, Premature Labor, and Curettage. By JOSEPH BROWN COOKE, M. D., Late Attending Physician at St. Mary's Free Hospital for Children, etc. Philadelphia and London: J. B. Lippincott Company, 1900. Pp. 5 to 109.

DR. COOKE has written a book that will be of value to many physicians. It is eminently practical, perfectly sound, and thoroughly modern. In its pages the author proves that he has brought the modern conception of asepsis in midwifery to the highest pitch of perfection. He may be judged by his book to be an enthusiast on the subject, and, as such, he perhaps goes to extremes. For instance, we scarcely think it necessary or desirable to carry with one sterilized water, which is subsequently to be rendered hot by the addition of boiled water "from the kitchen kettle." Why not the kitchen kettle at once? If the author is an enthusiast on asepsis, he certainly is on system as well. Everything, from the first sight of the patient to her dismissal, is done by a rigid system of routine, including Wednesdays as a day set apart for urinary examination.

Out of all this enthusiasm and system has come a little book on the care of pregnant and parturient women; on the obstetrician, his functions and duties; on the obstetrical nurse; and on the methods of properly performing obstetrical work, which may well be read with profit by the practitioner and with interest by the specialist. The illustrations are mainly from photographs, and, although some of them are somewhat dramatic, they illustrate the text well.

We hope to see a few changes made in the next edition. "Technics" we regard as better than "technique." We seriously doubt whether, "under proper management, eclamptic seizures can always be prevented," although we do believe that they frequently can be avoided. This is the end of criticism. We can but echo the wish that all obstetrical cases were as carefully conducted as the writer of this book would have them.

Paralytic Deformities of the Lower Extremities. The Principles of their Surgical Treatment. By E. NOBLE SMITH, F. R. C. S. Edin., L. R. C. P. Lond., Senior Surgeon to the Orthopædic Hospital, London, etc. With Fifty-one Illustrations. London: Smith, Elder, & Co., 1900. Pp. x-99. [Price, 5s.]

THIS brochure is devoted particularly to a consideration of the treatment of the various deformities of the lower extremities which arise from paralysis of one kind or another. The ætiology is considered only incidentally. The work is entirely clinical and offers a striking example of what is being achieved at the present day by orthopædic measures. The results of infantile paralysis are most frequently referred to, and it is interesting to note the improvement which follows operations in suitable cases and the use of proper apparatus. The book is profusely illustrated.

A Treatise on Nasal Suppuration; or Suppurative Diseases of the Nose and its Accessory Sinuses. By Dr. LUDWIG GRÜNWALD (of Munich). Translated from the Second German Edition by WILLIAM LAMB, M. D., M. C. Edin., M. R. C. P. Lond. (of Birmingham). With Eight Illustrations in the Text, Two Plates, and One Table. New York: William Wood & Co., 1900. Pp. xii-335.

IT is a matter for general congratulation that this monograph of Grünwald's has been rendered into English, for, while many have read it in the original, the present edition will carry its information to a much wider constituency and thereby greatly conduce to the benefit of this special field of medicine. To the translator our warmest thanks are due, for his work shows the accomplishments of the trained linguist. The book is written in such excellent English that it is difficult to realize that it is, after all, but a translation.

The work is divided into two parts, general and special. In the first part the author treats of ætiology, morbid anatomy, symptomatology and secondary diseases, methods of examination, general therapeutics, and prognosis. Under the subheading of secondary diseases, he quite fully discusses secretion, hæmorrhages, polypi, the results of extension of diseases to neighboring parts, etc. Under the "special" division are successively considered suppuration at the entrance of the nose, of the nasopharynx, of the sæptum, of the various sinuses, etc. In an appendix there is a short chapter on suppuration, due to syphilis and tuberculosis.

It will thus be seen that the work is much more than a mere discussion of sinus disease. It is one of those books which from its breadth of view and suggestive style bears more or less on the entire field of rhinology and is a model study in its thoroughness and directness.

One finishes the perusal of the book with a distinct sense of enlargement of his conception of the subject of which it treats, though one may not agree with the author in all the conclusions reached. As is well known, Grünwald maintains that many cases of atrophic rhinitis, especially of the ozænatous variety, are due to sinus disease. He believes that many polypi have their origin from a similar source. These views are not universally accepted, but the author's statements claim most careful consideration, for, with here and there an exception, every statement is borne out either by Grünwald's own experience or by the authority of others, and he has made a critical study of the literature of this subject and knows whereof he speaks. Much credit is due to him also for his advocacy of the open method of operating in frontal-sinus disease. One point in which he differs with many of the Continental clinicians concerns the matter of treating maxillary-sinus disease through the natural opening. He believes that this is a very difficult thing to do and regards it as an unsatisfactory therapeutic measure.

We cannot speak more in detail of the many interesting lines of thought which this book brings up. Suffice it to say that it is a conspicuous success in a field already well occupied, and that it should be in the working library of every rhinologist.

The Ophthalmic Patient. A Manual of Therapeutics and Nursing in Eye Disease. By Percy Fridenberg, M. D., Ophthalmic Surgeon to the Randall's Island and Infant's Hospitals, etc. New York: The Macmillan Company, 1900. Pp. x-312. [Price, $1.50.]

The aim of this book is best shown by quoting from the author's preface as follows: "The author aims to explain the principles and to describe the various procedures and appliances of ophthalmic nursing, the technique of operative assistance, and the nature and use of ocular remedies." The author has done wisely in laying most stress on actual nursing. The work is divided into ten chapters, and is well illustrated. Chapter I is devoted to a consideration of the whole subject of Eye Wards, and Chapter II to Hospital Routine for patient and nurse. The next two chapters are devoted to Practical Ophthalmic Therapeutics. In the fifth chapter the subjects of Asepsis and Antisepsis, with reference to patient, nurse, dressings, and instruments, are fully considered. Chapter VI tells of the arrangements for ophthalmic operations. The next chapter is an important one and takes up the subject of Post-operative Nursing and Treatment. One entire chapter is devoted to dressings and bandages.

The book is well printed, but we object to the use of glazed paper, because it is very trying for the eyes.

Golden Rules of Ophthalmic Practice. By Gustavus Hartridge, F. R. C. S., Senior Surgeon, Royal Westminster Ophthalmic Hospital, etc. Golden Rule Series. No. VIII. Bristol: John Wright & Co. London: Simpkin, Marshall, Hamilton, Kent, & Co., Ltd., 1900. Pp. 6 to 69.

This little book of rules is intended for the student and general practitioner, who are so likely to go astray in diagnosis and treatment. The book is written with the object of accentuating the essential points in eye diseases, especially the external diseases. Affections of the interior of the eye are only briefly alluded to. The author advises great care in the use of atropine in old people, and thinks it never should be used without first estimating the tension of the eye. One important point in diagnosis is the ability to distinguish carefully between conjunctival and ciliary injections, and this Mr. Hartridge emphasizes. One singular omission in the management of purulent conjunctivitis should be noted; the author makes no mention of the necessity of cold applications, which are all-important in this disease. We think that the author is inclined to use too strong solutions of eserine. The drug is an irritant, and it is rarely necessary to use a solution stronger than a quarter of a grain to the ounce. We also take exception to the statement that dots on the posterior surface of the cornea indicate the presence of cyclitis. They are usually due to serous iritis.

Food for the Sick and how to Prepare it. With a Chapter on Food for the Baby. By Edwin Charles French, M. D. Louisville: John P. Morton & Co., 1900. Pp. viii-171.

In this little volume the author has arranged diseases in alphabetical order, and under each has described the food suitable for the patient. In many instances he has given directions for the preparation of the various dietary articles. The book is certainly a useful one and, it seems to us, should be widely read by the profession.

Brain in Relation to Mind. By J. Sanderson Christison, M. D., formerly of the New York City Asylums for the Insane, etc. Chicago: J. S. Christison, 1900. Pp. 7 to 143.

In this psychological study the author has given a careful review of the material existing in literature. He concludes that the size of the brain has no bearing on the character of the mind, and that the convolutions of the brain, while probably of some psychic value, bear no direct relation to mental status in either the biological scale or the peculiarities of a class. The normal mind, in all its attributes and states, is considered in the closing chapter. "Mind is immortal," says Dr. Christison, "and because similar results can only follow similar conditions, character cannot change post mortem in any way possible ante mortem, so that the exit from this life must fit an entrance of the next." The book is largely and appropriately illustrated.

Crime and Criminals. By J. Sanderson Christison, M. D., formerly of the New York City Asylums for the Insane, etc. Second Edition. With an Appendix containing Analyses of the "Luetgert" and Other Noted Cases. Chicago: J. S. Christison, 1900. Pp. 3 to 177.

Dr. Christison has given us in this little book an analysis of a number of criminal cases and of several famous cases, in which he makes a successful effort to show that crime, especially in the instance of "repeaters," is associated with manifest physical or mental disease. Defective or bad education, and vicious environment, the author believes, are the responsible motives to crime in cases in which disease cannot be shown to coexist. The book is valuable in that it presents the facts in an indisputable manner, and it should therefore be read, not only by those interested in the scientific investigation of crime, but especially by those officers of the law who fail to take account of the relations which exist between disease and crime and of the manner in which the former can impel to the latter. The illustrations of Dr. Christison's book supplement the text admirably.

Verhandlungen des Vereins für innere Medecin zu Berlin. Herausgegeben von dem Vorstande des Vereins. Jahrgang XIX. 1899-1900.

This volume contains the transactions of the Society of Internal Medicine of Berlin for the year 1899. The papers and discussions are reprinted in book form. As this is the leading society of its kind in Germany, the original articles cover a wide field and bear in a large measure an authoritative stamp.

BOOKS, ETC., RECEIVED.

Lectures on Clinical Medicine delivered in the Glasgow Infirmary. By John Lindsay Steven, M. D., Lecturer on the Practice of Medicine, Queen Margaret College, University of Glasgow, etc. With Thirty-seven Illustrations. Glasgow: Alexander Macdougall, 1900. Pp. viii-195.

National Newspaper Directory and Gazetteer. Containing a Complete Classified Directory of the Newspapers and Periodicals Published in the United States; showing the Name; Frequency of Issue and Day of Publication; Class; Year Established; Number and Size of Pages; Subscription Price; Publisher's Name; and the Circulation of each. With Colored Railroad Maps of each State and Territory. Including also a Comprehensive Description of over 8,500 of the Leading Cities and Towns in the United States where Newspapers are Published. Issued Annually. Boston and New York: Pettingill & Co., 1900. [Price, $5.]

Transactions of the Southern Surgical and Gynæcological Association. Twelfth Session, held in New Orleans, December 5, 6, and 7, 1899. Volume XII.

Transactions of the Royal Academy of Medicine in Ireland. Volume XVII.

An Address of Welcome delivered on the occasion of the Centenary Festival of the Royal College of Surgeons of England, on Thursday, July 26, 1900. By the President, Sir William MacCormack, Bart., K. C. V. O., Consulting Surgeon and Emeritus Lecturer on Clinical Surgery, St. Thomas's Hospital, etc.

Leitfaden der Electrodiagnostik und Electrotherapie. Für Praktiker und Studierende. Von Dr. Toby Cohn, Nervenarzt in Berlin. Mit 6 Tafel und 30 Abbildungen im Text. Mit einem Vorwort von Prof. Dr. E. Mendel, in Berlin. Berlin: S. Karger, 1900. Pp. 139.

Datos para la Materia Médica Mexicana. Tercera Parte. Instituto Médico Nacional. México: Secretaria de Fomento., 1900. Pp. 152.

The Educational and Legislative Control of Tuberculosis. The Degenerative Results of Deficient Ventilation. By Charles Denison, M. D., of Denver. [Reprinted from the *Journal of the American Medical Association.*]

Miscellany.

Municipal Meat Inspection.—The *Journal of Comparative Medicine and Veterinary Archives* for May points out that there was a time when the quality of the milk was left, by the physician, entirely to the cow. When he found that the quality of the milk was modified by the mercenary spirit of the dealer, the physician secured the passage of laws intended to prevent this. When the veterinarian had proved the existence in the cow of certain diseases, such as tuberculosis, and had demonstrated the possibility of contagion through the milk, the physician made a demand for the inspection of dairy herds. He has now learned that milk is a remarkable carrier of disease through germs introduced from without, and, knowing that the greatest possible care cannot altogether prevent this, he has begun to recommend a Pasteurized milk. And it is in response to the physician's demands, based upon facts demonstrated by scientific investigation, that milk dealers are compelled to-day to offer a milk made pure by Pasteurization.

It is not too much to expect that the same history will be repeated in regard to meat. When the time comes that the physician is as well posted on all the diseases affecting the food value of all food-producing animals as he now is on the diseases which are generally traced directly or indirectly to the milk-supply, and is as well acquainted with the purposes and methods of meat inspection as he now is with milk inspection, he will begin to demand inspection of meat, and will express that demand through the laws of the Board of Health.

What is needed is just this: That the physician shall be trained in the necessity and methods of meat inspection, and so be placed in a position to intelligently advocate them. The graduated physician must be trained through the articles in medical journals and through papers and addresses at society meetings. This was urged a year ago by an honored member of the profession; but you cannot compel a man to read medical journals, nor can you compel him to attend society meetings. So our work must be directed to the coming physician. Through the few who possess the influence rather than through the many, let us urge the establishing in medical schools of lectureships on milk inspection and meat inspection. Let them be at first optional courses. And let competent veterinarians, as the men fitted by training and practice, especially those who are inspectors, hold themselves ready to offer even gratuitous service on this line.

The Death of Passed Assistant Surgeon Stoughton, U. S. N.—Press dispatches from Shanghai dated August 6th announce the drowning of Passed Assistant Surgeon Stoughton of the United States gunboat *Castine* at Shanghai. Dr. Stoughton was born in New York, and entered the naval service in May, 1891, having been formerly attached to the *Bennington.*

Saturnism Among Electrical Workers.—The *Gazette hebdomadaire de médecine et de chirurgie* for July 26th says that M. Proust recently pointed out to the Council of Hygiene a cause of saturnism hitherto unnoticed in France. The women employed in a factory of electric accumulators for automobiles work up a paste having a base of oxide of lead, and form it into small rods, which they shape in a mould, removing the seams by passing the material through a ring. M. Proust has recommended that the factories for electric accumulators be placed among classified occupations. Similar accidents had already been noted in Germany and Switzerland among the same class of workers.

Dr. Senn a Volunteer Once More.—We hear that Dr. Nicholas Senn has again offered his services to the United States Government, this time to look after the American wounded in China.

English Lady Doctor as a Health Officer.—We learn from the *Medical Age* for July that Miss Sheldon Amos, M. B. Lond., has been appointed a medical officer at Suez under the board of quarantine. This is the fifth appointment of an English medical woman as a sanitary medical officer in connection with the plague in the East.

The Dissemination of Western Medical Science.—The *Canadian Journal of Medicine and Surgery* for August relates a case which indicates the gradual spread of Western medicine into Eastern countries. Among the recent graduates at Laval University is a Syrian, Nagib Abdow, who after a classical course at Bayreuth, Germany, became a medical student at Laval University and throughout the four years' course distinguished himself by his assiduity. Dr. Abdow, who, it is said, speaks English, French, Spanish, Italian and Arabic with equal fluency, after a two years' course of surgery in Paris, intends to return to his native country to practise medicine, for which purpose his Canadian degree will be endorsed in Constantinople.

Medical Ethics in the United States.—In an address on American Medicine, delivered before the Thirteenth International Medical Congress, an abstract of which was published in the *Medical Record* for August 11th, Dr. A. Jacobi, of New York, said:

"The ethical conscience of the physicians of the United States is exhibited in a great many ways. It is considered unethical for a doctor to own a drug store or a part of it; ever to take a patent on any invention of his own; ever to recommend over his name a patented instrument, a proprietary food, or medicine, or mineral water. That is illustrated by what happened to the famous Morton after his successful demonstration of the anæsthetic effect of ether in the Massachusetts Hospital. After having extracted a tooth on September 30, 1846, without giving the patient any pain, he applied immediately for patent rights and sold individual office rights. Moreover, he kept his composition, which he called 'letheon,' a secret. It was then that the profession turned against him and forced him to admit that his 'letheon' was sulphuric ether disguised by some aromatic oil. A medical man in America is forbidden ever to advertise his name, or office hours, or his specialty in a newspaper or lay magazine; ever to announce his specialty, if any he have, on his cards. If reports of cases or operations of the same physician appear repeatedly in the public press, it is taken for granted that it has not been without his knowledge, consent, or prompting. All of these things impair a medical man's professional standing; they render him an improper candidate if ever he applies for membership in a medical society, or make him, if he be a member, the subject of discipline.

"Many of the rules accepted by American medical men are contained in a book compiled by an Englishman, Percival, in 1807. It was received as the code of ethics of the American Medical Association in 1847, and is still obeyed by those who know the book or who do not know it, or even by those who never knew of its existence. One of the regulations of the code forbids consultations with homœpaths.

"It is hardly necessary to say to those of you for whom the practice of medicine is not only diagnosis and autopsy, but the treatment and cure of the patient in whose behalf a consultation is to be held, that when medicinal treatment is in question you cannot agree with a homœapath who is a Hahnemannian; and you do not want to meet a homœopath who, because the name is still fashionable and for a portion of the misinformed public the subject of an almost religious fanaticism, employs that title for meretricious purposes. Still there are cases in which it would be inhuman to refuse a consultation. Not only were such consultations held from olden times, but even in large cities exceptions to the rule have always been frequent, indeed too frequent in my opinion. Moreover, whoever is acquainted with smaller cities and villages, where a homœopath is the only rival or companion of the regular physician, knows that for either it would be suicidal to refuse a consultation. Only lately one of the medical men most widely known for his wisdom, in the American Medical Association and the profession at large, Dr. S. C. Busey, of Washington, proclaimed that the rule forbidding such consultations should be so modified or explained as to permit them in cases of emergency. This is exactly what the Medical Society of the State of New York made its official policy in 1882. We considered it more honest to admit by law what was constantly being done, and to decree precisely that for reasons of humanity and in an urgent case a consultation should not be refused. For this sin we, the body of the Medical Society of New York, were expelled from the American Medical Association."

The Increase of Rabies in Paris.—According to Associated Press telegrams the annual report on the subject of hydrophobia, which has just been presented to the council of public hygiene at Paris by Prof. Poust, shows by statistics that the number of mad dogs in Paris and the Department of the Seine is steadily increasing. The Pasteur Institute treated 294 persons who had been bitten by rabid animals between Jan. 1 and June 8, 1900. The case is mentioned of an apprentice who, in repulsing a mad dog, got some saliva on his hand. This he raised to his eye, into which some dust had been blown, and the virus was thus communicated to the blood, resulting in the death of the man a fortnight later.

The Intense Heat from which we in New York have been suffering has not been confined to America. Medical exchanges, both French and English, show us that in many parts of Europe daily heat prostrations, often very numerous, have occurred as well as here.

An Indian Prince's Gift to the Medical Services in China.—According to the *Lancet* for July 28th Lord George Hamilton recently announced in the House of Commons that His Highness the Maharajah of Gwalior, "in testimony of their loyalty to the Queen Empress" had offered on behalf of himself, his mother and his wife, to equip fully a hospital ship for China at a cost of 20 lakhs of rupees—*i. e.*, at the present rate of exchange, between $600,000 and $650,000.

Always Positively Exclude Pregnancy in Uterine Troubles.—The New York correspondent of the *Interstate Medical Journal* for March, after relating a case of minor gynæcological operation speedily arrested by the discovery that pregnancy was the trouble, continues:

"It is to be regretted that some benefactor of humanity does not endeavor to discover some new diagnostic points in regard to pregnancy and tumors, instead of always seeking some new operation. This suggests another incident. A woman brought action against the Omnibus Cable Company, in a Western State, for damages for injuries alleged to have been received by her in the derailment of one of the cable cars. Some months before the trial the woman was examined by six physicians for the purpose of ascertaining her physical condition. At the trial several of these physicians testified that they had ascertained during the examination that she was suffering from a tumor, either ovarian or uterine, about the size of a cocoanut. There seemed to be no dissent as to the existence of the tumor. The family physician testified that the tumor had increased in size until it had become four times as large as when the examination was made. The defendant contended that the ailments were caused by the tumor and not by the accident of the cable car. On the other hand, the plaintiff sought to show that the tumor was the result of the accident. Ten days after the trial the woman gave birth to a child at full term. It was admitted afterwards that she had not been suffering from a tumor at all.

A New Maternity Hospital.—According to the *New York Times* for August 11th the Bellevue University Building, now used by the Cornell Medical College, is to be converted into a maternity hospital, doing away with the old Maternity Hospital at Bellevue Hospital. There will be a dispensary on the ground floor, a maternity hospital on the first and second floors, and a dormitory for the Bellevue Hospital servants on the top floor. The Cornell Medical College will move into its new building soon, and the change will then be made.

The Yellow Fever in Havana.—Press dispatches state that on August 10th fifty-two cases of yellow fever were then under treatment in Havana. Of the victims eighteen were Americans. Thus far the mortality rate has been about 25 per cent. of those attacked.

A Three-barreled Penis.—The *St. Louis Medical and Surgical Journal* for August, citing *L'Union Médicale,* reproduces the following on account of its unique character: Dr. Luxardo describes a rare anomaly of the penis which he observed in a young man under treatment for gonorrhœa. The meatus presented three openings, which corresponded to as many distinct urethral canals. The upper one gave passage exclusively to the seminal fluid, the lower one to the urine. The middle tube appeared to communicate with the lower one. The gonorrhœa affected only the two inferior canals.

The Estimation of Damages in Actions for Malpractice.—In a second trial in February before Judge Kohler at Akron, Ohio, in which the plaintiff sought to recover damages for malpractice from a medical man on the ground that "because the defendant so carelessly, negligently and unskillfully set and dressed said injury, said leg is one inch shorter than before, tibia is out of place one and one-half inches, is crooked, became lame, and suffers much pain, lost time, all of which amounts to $10,000," the judge in his summing up delivered himself thus in regard to the estimation of damages (Dr. J. H. Seiler in the *Cleveland Medical Gazette,* July):

"On the measure of damages I give you the following rule: If the plaintiff has shown himself entitled to recover in this case, under the evidence and instructions of the court, he can recover only the actual damages that he has sustained, by reason of the injuries complained of; that is, such damages as will fairly compensate or pay him for the injuries he has sustained. But in estimating the compensatory damages in cases of this nature, all the consequences of the injury are to be taken into consideration, future as well as past. The plaintiff, therefore, is entitled to recover all damages which he has suffered up to the time of the trial, and for all damages which it is reasonably probable that he will sustain in the future, not exceeding the sum claimed.

"In estimating the amount of such damages, the elements the jury is entitled to take into account consist of all the effects of the injuries complained of, consisting of personal inconvenience, all bodily or mental suffering, disfigurements or permanent annoyance which is liable to be caused by the deformity, if any, resulting from the injuries complained of and the permanent impairment of the plaintiff's capacity or power to earn money in the future, if such is the case. In determining this last element you are at liberty to consider the health, condition and earning capacity of the plaintiff before the injury complained of, as compared with his present condition, in consequence of the injury, and how far the injury is calculated to disable the plaintiff from securing employment at his usual vocation or calling, or receiving money thereat, or from engaging in those pursuits or callings for which, in the absence of the injury, he would have been qualified.

"You may also consider the age of the plaintiff, his present health and his reasonable expectancy of life. The defendant, however, is liable only for such damages as result proximately from his failure to exercise that degree of care and skill ordinarily exercised and possessed by physicians and surgeons in the treatment of such cases. He is only liable for those damages resulting or accruing to the plaintiff on account of the injuries, in excess of those which would have accrued to him naturally from the dislocation of his limb, had he been treated with that degree of skill and care ordinarily possessed by physicians and surgeons. And further, the damages must be such as are set up and alleged to have been sustained in the petition, and such as have been proved, if any, upon the trial."

Osseous Lesions on Prehistoric Skeletons.—M. Zambaco (*Progrès Médical,* July 7th) recently showed to the Paris Academy of Medicine photographs showing osseous lesions upon skeletons dating back to some eighty centuries. M. Zambaco considered the lesions syphilitic in character. M. Fournier, however, regarded them as rather due to severe osteitis, or perhaps to tuberculous osteitis. A commission consisting of M. Perrier, M. Filhol, M. Fournier, M. Cornil and M. Lannelongue was appointed to examine the subject.

Professor Virchow's Hints to Contributors to the Medical Press.—Professor Virchow, the editor of the *Archiv für Pathologische Anatomie,* says the *Lancet* for July 28th, has addressed some words of counsel for the benefit of contributors to medical weekly, monthly, or quarterly journals. He says that it is one of the elementary principles of journalism that the successive numbers of a journal must be issued at a certain time and in a certain size. Contributors must therefore endeavor to write concisely, taking up as little space as possible and avoiding all superfluous matter. Descriptions of cases, experiments, and necropsies when sent to editors for publication are often so voluminous that it is impossible to use them without serious inconvenience. The publications of series of cases, etc., in the form of tables is a great annoyance for the editor, the printer, and the readers. Controversies as to priority are often offensive in style and lacking in the courtesy due to professional brethren. Finally, contributors ought to abandon the custom of quoting long passages from other authors with the object only of showing their knowledge of medical literature.

We are glad to be able to reproduce some advice much needed by medical authors stamped with so high an authority as the endorsement of the illustrious Virchow.

Original Communications.

THE ANNUAL ADDRESS OF THE PRESIDENT OF THE AMERICAN LARYNGOLOGICAL ASSOCIATION.*

By SAMUEL JOHNSTON, M. D.,

BALTIMORE.

Fellows of the American Laryngological Association: Through your suffrage I am permitted to be the recipient of the highest compliment that it is your privilege to bestow annually upon one of our members, and I beg to express to you my most sincere thanks for the high honor you have conferred upon me in choosing me your president. My pleasure, though, in taking the chair is dampened somewhat by the sense of responsibility which I am keenly conscious is no small part of the office; and inexperience in parliamentary rulings prompts me to trust to your generosity and to crave your indulgence for my shortcomings. A cordial greeting awaits you, as always, at the capital of the nation, and I beg to extend to every one of you and our guests a most hearty welcome. May I not hope that this meeting, the last that we shall have in the Nineteenth Century, will be a memorable one in our annals?

The twenty-first annual meeting, held in the city of Chicago, in May last, was a most harmonious one, the fellows present numbered about thirty, and both the papers presented and the discussions following were of high order. The social feature of the meeting will long be remembered with pleasure and gratitude for the princely hospitality bestowed upon us. Noteworthy among the papers on the programme, was one by Dr. G. Hudson Makuen, upon stammering, with the exhibition of a patient cured by his method of direct nervomuscular training. An interesting discussion on the relation of pathological conditions in the ethmoid region of the nose and asthma brought out many instructive points and added much to our knowledge relating to the pathology and treatment of this most intractable disease. Other subjects equally instructive might be referred to, but time will not permit.

It is no easy matter to choose a subject for an address to present to this assembly of experts in laryngology. Even an attempt to review the salient points in the literature of our specialty for the past year would be an herculean task, and I should doubtless only repeat to you what you already know. It occurs to me, therefore, that it may not be inopportune to lay before you a few simple suggestions which have occurred to me regarding the future harmony and mutual good-fellowship of our association. Not to detain you by a long discourse, permit me to state in as few words as possible some regulations which, in my judgment, should guide us in our future policy. The membership should be limited to a number to be decided by a two-thirds vote of the society; old members should be encouraged to continue to be active workers and a feeling of good fellowship stimulated.

Mature judgment and skill in diagnosis and operative work, I need scarcely remind you, come only by years of experience. Scientific and clinical laryngology should go hand in hand as in other departments of medicine and surgery. It is said, and with truth, that in order to practise successfully any specialty, one must be a clinician in every sense of the word, so intimately do all the various parts of the human body depend one upon the other. In the study of our cases, the body should be examined as a whole, including the blood and the secretions. For example, a leucocytosis of considerable extent is apt to arise in malignant diseases, and its discovery may help us in diagnosticating cancer of the larynx in suspicious cases.

It seems to me that in teaching classes in laryngology, in these days when surgery is such a lever in our successful treatment, enough importance has not been given to details in operating upon the nose and throat. The student should be taught upon the cadaver all the operations upon these regions as well as those upon the ear, and required to perform them repeatedly, as in the usual courses in operative surgery. Skill in operating cannot be acquired by simply looking on at our throat and nose clinics.

The profession at large, and the younger members especially, look to us to teach what methods are the best in the treatment of diseases of the upper organs of respiration, and any opinions which are allowed to go to the press with our sanction, not founded upon mature study and clinical experience, will only do harm to untold thousands of individuals.

We should not be hasty in passing new applicants into our ranks, but rather encourage our present number of fellows to renewed efforts. Dr. Mackenzie, in his eloquent presidential address before you in 1889, offers the suggestion that "our doors should be open to all, but at no time and under no circumstances should we be guided in the selection of our members by personal, political, or geographical reasons," and I wish to indorse his words with emphasis. It is not numerical strength, but individual attainments in all that pertains to medicine, that is needed to perpetuate the high standard and influence that this association holds in the eyes of the world.

It is desirable, of course, to have a number of papers on the annual programme, but it appears to me that it would be preferable to have a few papers and to have those thoroughly discussed, rather than a long list with, in some instances, the discussion cut short for lack of time and other papers not discussed at all.

The papers should be divided into two classes, namely: Scientific and clinical, and in the latter, where a necropsy has been possible, a full report of the findings in the dead-house and in the pathological laboratory should accompany the report.

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*Delivered at the twenty-second annual congress.

Owing to the tendency of some writers to advance views which have not withstood the test of clinical application, I would make it a law of this society that no opinions should be allowed to be given to the world, indorsed by this association, which are not founded upon facts, so far as they are possible.

In the treatment of throat and nose diseases I would plead for the application of mild measures; and in particular, for the judicious handling of the galvanocautery, the nasal saw, and Gottstein's curette. Many diseases, I feel confident, could be prevented by careful hygiene of the buccal, the pharyngeal, and especially the nasal cavities.

"The evil that men do lives after them;
The good is oft interred with their bones."

Article IX, Section I of the by-laws reads as follows: "Any fellow who shall have failed to furnish a paper for three successive meetings, or who shall have absented himself for three successive meetings, may, on vote of the council, be dropped from the association." It was recommended that this by-law should be amended by excluding fellows of twenty years' standing and creating a list of retired fellows. I beg to question the advisability of any such legislation, and I could not be more strongly supported in my doubts regarding the older members than by the following quotation from the *Autobiography of Samuel D. Gross:* In response to a toast, "Our Guest," at a dinner given to the late Professor Gross, in Philadelphia, in 1879, Dr. Agnew said in part: "It is, I fear, too commonly thought, in these days of mad haste for preferment, place, or power, that men when they have passed three score and ten years, should gracefully retire to the shades of private and inactive life, leaving the field to younger athletes. This is a great mistake. Look at old Plato, at eighty-one, delving away at his studies with all the enthusiasm of youth; at Isocrates, delivering his great Panathenaic oration at ninety-two. No! No! There is something in the grace and dignity of age. Its serene complacency of mind, when coupled with an affluent wealth of knowledge and rich stores of observation and experience, renders the presence of old men in our midst pillars of strength."

In regard to the compulsory act of no papers or attendance for three successive years, no membership—I would erase this clause from our by-laws, for I believe each fellow will conscientiously do his duty in all faithfulness and honor to this society without any urging in the shape of such a by-law; nor do I think that this law contributes in any way to increase the influence or dignity of our association.

It may not be premature, I hope, and I will ask for your consideration, that we follow the advance of the magistrates of ancient Rome, who in the latter half of the fifth century B. C. established the censor. The censorate should be composed of two fellows appointed by the president, whose duty it shall be to pass upon all papers and discussions before publication in the *Transactions*. The members composing this body shall be chosen annually, and be eligible for re-appointment.

"Maybe wildest dreams
Are but the needful preludes of the truth."

I beg to remind you that the conception of the need of a national laryngological association originated with Dr. Frank H. Davis, of Chicago, twenty-three years ago, and that it is due to the ardent zeal and untiring labor of the favored few who responded to that first call at Buffalo, in June, 1878, together with the subsequent judicious additions to our ranks, that this association has become a great success, as evidenced by a review of the twenty-one volumes of our *Transactions* and a glance at the programme before you. I am sure I am not wrong in saying, and it must be evident to you, that year by year, as we assemble at our meetings, new life and energy are shown in our proceedings, and new regions are being explored.

Dr. DaCosta, in his valedictory address at the Jefferson Medical College, in April, 1891, says: "Day by day, step by step, discoveries are being approached which are already casting their shadows across our path. They will be reached one by one. It is well that this should be so. If everywhere were light at once, we should be limited in our knowledge."

Within the recollection of many of us, the nose and accessory sinuses (with the exception of the antrum of Highmore) were scarcely considered, and nasal pathology was a mere cipher. Little or no attention was given to nasal affections beyond the removal of tumors and the use of Thudichum's nasal douche in the treatment of a rhinitis or an ozæna. When we look around us now, "by the trimmed lamp of knowledge," we behold great light where before darkness reigned.

In surgical technics our fellows are unsurpassed. The ingenuity of the Anglo-Saxon is always in advance, in medicine equally as in all industries. As the artist speaks through ornaments, we must speak through our works—"Whose heart has not kindled with enthusiasm before the arch which tells of the nation's triumph, or the column to commemorate the glory of the victor? They speak a language which shall never die."

Let it, therefore, gentlemen, be our endeavor, by industry and scientific attainments in our specialty, to make our contributions worthy of our great national association and so receive the lasting gratitude of all mankind.

It becomes my very sad duty to announce the death of Dr. Max Thorner, of Cincinnati, Ohio, on Sunday, August 27, 1899. Although just admitted to membership and personally not known to some of us, yet, by the great merit of his contributions to the literature of laryngology, he was no stranger to our fellows. Dr. Thorner gave promise of becoming one of our most zealous members, and by his demise this association has lost one who was destined to hold a conspicuous place in our midst.

I regret to chronicle, also, the death of Dr. Joseph C. Mulhall, who expired on Thursday, January 11th, at his home in St. Louis, aged forty-nine. Since 1886, when Dr. Mulhall became a fellow of the American Laryngological Association, he has held an enviable position among the laryngologists of the United States. His work was always thorough, and we shall miss, in our deliberations, the wisdom of his teaching as well as his personality.

One of our corresponding fellows, Professor Carl Störk, died at Heitzing, near Vienna, Austria, September 17, 1899, in his sixty-seventh year. In the death of Professor Störk, not only this association, but the profession at large, has lost a distinguished teacher and friend, and we beg to mingle our most sincere expressions of sorrow with those of the multitude who mourn for him in this country and in his own native land.

To this list of renowned dead, whose loss we sincerely deplore, I have to add that of William McNeill Whistler,

M. D., senior physician, London Throat Hospital, and one of our corresponding fellows. The memory of this eminent physician and laryngologist will ever linger in the hearts of his friends and associates, and also of all who knew him by his works.

I will not longer trespass upon your valuable time, but proceed to the work before us. I now declare the twenty-second congress of the American Laryngological Association open and ready for the intellectual feast, in the shape of the highly scientific programme, which has been prepared for us.

ON A NEW METHOD OF OPERATION FOR EXSTROPHY OF THE BLADDER.

By CARL BECK, M. D.,
NEW YORK.

THERE is hardly a condition which renders life more unfortunate than that of exstrophy of the bladder. The continuous discharge of urine, the protrusion of the irritable mucous membrane, easily bleeding, the excoriation of the surrounding integument, not to speak of the impossibility of sexual intercourse, indeed paint a most deplorable picture of appealing human misery.

No wonder that the present advances of surgery have stimulated efforts to create a new and useful receptacle for the urine by various methods. Holmes, Wood, Thiersch, Billroth, Czerny, and Hirschberg succeeded first in securing an artificial covering for the bladder and urethra by forming flaps of the adjacent abdominal skin and reflecting them so that they served as an anterior wall to the bladder.

But this ingenious method has the great disadvantage that it brings into the interior of the bladder an area of integument naturally covered with hair. The hairs soon become incrusted with urinary salts, so that the real gain of the "improvement" is questionable. In the case of a little boy fourteen months of age, in which I had succeeded in closing a large gap of the abdominal wall by this method, my disappointment was great when I recognized incrustations of phosphatic salts on the protruding hairs. Decomposition of the urine took place, and excessive irritation was caused by itching. It was mitigated by repeated surgical intervention under anæsthesia, especially by curetting. The operation was performed on October 14, 1882. I was unable to persuade the parents to allow another radical operation to be done, and I lost sight of the patient four years ago. I am informed that recently another operation, probably implantation of the ureters into the rectum, was undertaken by a prominent surgeon. Aside from these disadvantages, it must also be considered that no retentive power is left to the bladder, so that the use of a rubber receptacle is still necessary.

A much more efficacious method was attempted by John Simon, who implanted the ureters into the sigmoid flexure. Thus the urine drained into the rectum. This method was improved by Smith, Chaput, Fowler, Frank, Küster, Trendelenburg, Passavant, Sonnenburg, and especially by Maydl, in whose case the rectum acquired an ability to retain the urine for several hours. The great disadvantage of this most ingenious method, however, is the danger of infection, the kidneys almost always becoming involved (pyelonephritis). Fowler made a special valve from a small portion of the mucosa of the rectum, the design of which was to prevent the transmission of infectious material from the rectum up through the ureter.

Tizzoni and Foggi (Die Wiederherstellung der Harnblase. *Centralblatt für Chirurgie*, 1888, No. 50) constructed a new bladder from a loop of small intestines, engrafting the ureters in it. The dog on which they experimented could retain the urine in the new receptacle for an hour. Similar experiments have been made by Rosenberg, Rutkowski, and Mikulicz. Experiments made by me on cats had shown the ease with which membrane taken from the intestinal tract could be engrafted (compare Beck, Ueber die Behandlung gangränöser Hernien, gestützt auf 69 Vivisectionsresultate, Langenbeck's Archiv, March, 1880).

In two animals resected loops of the jejunum, after being closed at both ends, remained functionally active if left in connection with their mesentery. An attempt to utilize another hollow organ (the appendix) for implantation into the ureter was also successful.

While intestinal implantation surely comes nearest to the ideal of *restitutio ad integrum*, the grave risk associated with it has so far prevented me from attempting it on a human being. Mikulicz has reported a case in which he operated successfully by constructing a new bladder.

During the last few years I have tried to improve the autoplastic method, my main object being the restoration of the retentive power by an anterior muscular wall. This I accomplished partially in the case of a boy three years of age, in September, 1897. The patient was presented at the scientific meeting of the New York German Poliklinik in February, 1898. The exstrophy of the bladder was immense, the dark red mucous membrane protruding from the symphysis pubis to the umbilical region for an area two inches and a half in diameter. Periodical dripping of the urine indicated the two ureteral openings. There was complete epispadias, and there was also absence of the testicles. The irritated condition of the adjacent integument induced me to subject the patient to preparatory treatment by prolonged baths, cauterization, and unguents. The excoriation not being influenced by these therapeutic efforts, I proceeded to the operation by freeing the margins of the protruding bladder walls and exposed both recti muscles, which were severed from their insertion at the pubes and partially from the transverse fascia until they were so far mobilized that they could be reflected and united, thus forming an anterior vesical wall. There was but little reaction after this operation. The hæmorrhage from the mucous membrane ceased and the dermatitis was easily subdued. Two months afterward I intended to change the epispadias groove into a channel by Thiersch's method, but the parents were so well pleased with the child's condition that they insisted upon postponing final procedures.

Recently I had the opportunity of improving the method further. In a boy five years of age I succeeded in creating a much more solid anterior wall in the following manner: After the margins of the protruding bladder wall were freed, the incision line running through healthy tissue as much as possible, they were dissected backward to the extent of about one cm. When I had ascertained that the freshened margins could be approximated without tension, both recti muscles were exposed and incised along their internal margins to the extent of a little less than half their thickness. Two transverse incisions, connecting the outer and inner margins of each rectus muscle and extending down into the substance of the muscle to the same extent, completed the outlining of the flaps. The lower incision lines were as near the symphysis as possible, and the other one was below the umbilicus. Beginning at the internal margin of the incision, the upper layers of fibres of the recti muscles were divided, until the flaps so formed could be lifted near the outer margin, with which they remained connected after the manner of a hinge.

The bladder walls now being united with thin iodoform-silk sutures, the reflected muscular flaps were united above. The subcutaneous suture was chosen for the integument, which was supported by four relaxation-sutures, also consisting of iodoform-silk. They were applied three-quarters of an inch distant from the wound margins, so that there was no direct contact with the wound line.

Thus a small but virtually normal bladder was secured, protected by a firm muscular layer, which is likely to distend later on. The further observations of the case will be reported in this journal.

A CASE OF CYST OF THE EPIGLOTTIS.

By W. L. BULLARD, M. D.,
COLUMBUS, GA.
MEMBER OF THE GEORGIA STATE MEDICAL ASSOCIATION, THE AMERICAN MEDICAL ASSOCIATION, AND THE TRI-STATE MEDICAL ASSOCIATION.

A FEW months ago I was consulted by a patient, a noted lawyer, fifty-two years old, married, who complained of something "sticking" him in the throat, with a tendency to clear the throat of mucus or some foreign body. There was not much soreness, but there was a feeling of fatigue attending the effort of articulation while he was arguing cases. Laryngoscopic examination revealed a cystic growth on the anterior surface of the epiglottis, of the size of a small filbert, with a broad base. The growth was incised and a gelatinous substance was discharged from it. A solution of silver nitrate, sixty grains to the ounce, was applied to the wrinkled mucous membrane of the emptied sac, also, through the incision, to the interior of the sac. In three days there was no sign of the tumor, save that a little thickness of mucous membrane could be seen. About this time the patient had occasion to visit Baltimore for a ten days' sojourn, and during this time had a physician see and treat his throat daily. Two weeks after the patient's return home he called to see me, and on examination the growth was as plainly visible as ever. I again incised the growth, letting out the semi-fluid, and a probe coated with chromic acid heated over a gas flame to solidity was introduced through the incision and the sac curetted, so to speak, with the result that up to this date—five months—there is not the least evidence of its return. Dr. J. H. McDuffie, of this city, was kind enough to examine this case with me, and it is reported on account of the extreme rarity of such growths on the epiglottis.

AUGUST 11, 1900.

BLADDER INCRUSTATIONS, MULTIPLE PHOSPHATIC CALCULI; MEDIAN LITHOTOMY, IRRIGATION, ETC.

By J. COPLIN STINSON, M. D.,
SAN FRANCISCO.

THIS case is reported to show the lines of treatment followed to restore the bladder and urine to their normal conditions.

Mr. J. W. B., age thirty-three, weight 210 pounds, complained of frequent and painful urination. His family history was good. He had had no venereal disease, and had been in good health until the autumn of 1893. At that time he had retention of urine. The physician who was called passed a catheter, and catheterism had to be continued. The patient used his own catheter without proper precautions. Mucus began to pass from time to time. Later on he was ordered boric acid in water, as a wash for the bladder. This was used at times very frequently, but sometimes its employment was discontinued for weeks. A few months later he began to pass gravel accompanied by blood. When the urine was allowed to stand a few minutes, a thick, jelly-like material containing particles of gravel would settle to the bottom. Medicines did no good. Mineral springs were resorted to, with the effect that the bladder would hold more urine, which became more nearly of a natural color, and fewer pieces of gravel would pass. On his leaving the springs and stopping the use of several gallons of water daily, the trouble would return as severe as before. Bartlett Springs water rendered the urine very alkaline every time it was used. Magnesium citrate had the same action. Sanitarium treatment was tried, but produced no desirable effect. Bigelow's evacuator and irrigations were used over a considerable period of time with no success. Aseptic and antiseptic irrigations were also employed without any marked benefit.

I saw the patient in consultation with Dr. D. A. Beattie, of Santa Clara, on November 28, 1897, and operated the same day. Examination of the urine showed it to be alkaline. The specific gravity was 1.028. It contained blood, pus, phosphates, urates, etc. Under chloroform anæsthesia the cavity of the bladder was found to be small, the walls were thickened, there were rough spots or incrustations on each side on the mucous membrane, and a large number of small masses could be felt with a searcher. With the assistance of Dr. Frasse, of San José, and Dr. Beattie, I did the operation of median lithotomy through an inch-and-a-quarter incision; the prostate was stretched and cut lightly; the perineal wound was deep and it was difficult to get the tip of the right index finger into the bladder. This difficulty was lessened by bimanual manipulation, the left hand forcing the bladder down on the finger in the perineal incision. The incrustations were found with a searcher near the base of the bladder, on each side, about an inch from the cystic neck. The bladder was cleared of the calculi and the incrustations and freely irrigated with weak solutions of bichloride of mercury and permanganate of potassium. I used perineal drainage with a rubber catheter, No. 30, French, employing Browne's tube-adjuster. The patient's recovery was uninterrupted.

The after-treatment was carried out by Dr. Beattie, to whom I am indebted for the further notes on the case. During his convalescence I saw the patient three times. The bladder was washed out with bichloride-of-mercury solutions beginning with a strength of 1 in 25,000 and increasing gradually to one of 1 in 6,000, alternating every three hours with a saturated solution of boric acid, or a 1-in-30,000 nitric-acid solution. Every third day the dressings and tube were removed, and the tube was cleansed and replaced. There was invariably a deposit of phosphates in and on the portion of the tube projecting into the bladder. These irrigations were used for eight days. The mucus did not disappear, but very little calcareous matter passed. For the next eight days a saturated solution of boric acid and hydrogen peroxide were used, alternating every three hours. The use of the bichloride, even in the strength of 1 in 12,000, had to be discontinued on account of the irritability it produced; pain followed its use, with constant expulsive efforts lasting for fully an hour. The use of nitric-acid solution was also stopped, as it did not appear suitable. Then for eight days a solution of quinine, two grains to the ounce of a 1 to 10,000 solution (at first) of sulphuric acid was used, alternating with peroxide of hydrogen and a saturated solution of boric acid every two hours. These were borne by the bladder very well. Gradually the strength of the sulphuric-acid solution was increased and the amount of quinine to three grains to the ounce. These irrigations were continued till the tube was removed. Medicines were given for about a week after the urine became persistently acid—benzoic acid, three grains every six hours; lithium benzoate, three grains three times a day. The urine became acid on the eleventh day, but did not remain so more than four days, when it again became alkaline. On our beginning to use the quinine-and-sulphuric-acid solutions it became acid rapidly and remained so permanently. Small deposits of phosphates were found on the tube as late as the fourth week, but no grit or hard substance passed after the fifteenth day, except two or three segregated pieces of about the size of a small pea. The daily quantity of urine was about two and a half to three pints. The tube was removed six weeks after the operation, *i. e.,* about two weeks after the urine had become constantly acid. On the third day after the removal of the tube the wound was entirely healed.

No treatment has been required since and he goes about in comfort. After the removal of the tube the bladder held urine for four hours. Sometimes he slept the night through without getting up; occasionally he had to rise two or three times. Later reports are satisfactory. At the time of the last report, August 7, 1900, his urine and micturition were normal.

326 Kearny Street.

A CASE OF MURPHY-BUTTON ANASTOMOSIS.

By WILLIAM C. WOOD, M. D.,

GLOVERSVILLE, N. Y., GYNÆCOLOGIST TO THE NATHAN HOSPITAL.

John von Aesch, aged eight years, was found lying in a field, to which he had been sent to drive the cows, by a passer-by who took him to the Nathan Littauer Hospital. He had been gored by a cow in the left side just below the costal margin, making a wound two inches long from which two loops of intestine protruded, each loop being about eighteen inches long. Through one of the loops was a ragged wound made by the horn of the animal. I wasted some valuable time in attempting to close the wounds by suture, only to find that the calibre of the bowel would be contracted to such an extent that it would be unsafe to leave it. I therefore decided to resect the injured portion of intestine and join the two ends of the gut by means of the Murphy button. I found considerable difficulty in inverting the ends of the intestine about the button, so to make sure I put in about eight Lembert sutures after the two halves of the button had been tightly pressed together. The intestines were then carefully washed with normal salt solution and returned to the abdominal cavity. The peritoneal cavity was filled with hot salt solution and closed with sutures of silkworm gut.

There was very little constitutional disturbance, vomiting, or fever. He was nourished for the first week by rectal enemata of beef peptonoids, milk, and whisky, a little hot water only being given by the mouth. The Murphy button was passed on the eleventh day, bringing with it a large intestinal worm which had become entangled in the opening of the button. The patient was discharged from the hospital cured on the thirty-fifth day.

This case is remarkable on account of the long time the intestine was exposed; its being covered with dirt, the prolonged handling it received in the attempt to suture, and the partial plugging of the aperture of the button by the worm. I cannot close this report without mentioning the valuable assistance I received from Dr. Beach, Dr. Garnsey, and Dr. Goodfellow, of the hospital staff.

LARNYGITIS A PROVOKING CAUSE OF THE ASTHMATIC PAROXYSM.*

By WILLIAM C. GLASGOW. M. D.,

ST. LOUIS.

It may seem like threshing over old straw to bring before you again the subject of reflex neurosis of the upper air passages; still, repetition is at times a good thing, inasmuch as it tends to fix the attention, and observations are remembered which would otherwise be forgotten.

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* Read before the American Laryngological Association at its twenty-second annual congress.

Since the time of Voltalini nasal reflexes have largely occupied the attention of laryngologists, and a great deal of matter has been contributed to the subject by some of our own fellows. Among the other reflexes, asthma has been given a prominent place, and in the greater number of articles published in our *Transactions* we find it ascribed solely to some nasal irritation.

At the meeting of our association in Boston, in 1882, I read a paper, or rather a paper was read for me, in my absence, by Dr. Seiler, with the title Laryngeal Asthma. In that paper I maintained that the asthmatic paroxysm was at times provoked by a laryngeal irritation, and that it could be relieved by local applications to the larynx. At the time this paper was written I thought the idea an original one! but since then I have found a monograph by Horace Green, in which he professed to break the asthmatic paroxysm by the application of nitrate of silver to the larynx. This paper is simply a repetition of the views expressed eighteen years ago, and the experience of these years has not changed them. Since that paper was written, we have had expressions from a few members of our society which show that they consider that the irritation may be in different parts of the respiratory tract, although in most cases these are considered to be secondary to some pathological condition of the nasal chambers or the nasal pharynx.

It is now generally admitted that asthma is a vasomotor neurosis and that the paroxysm is provoked by some peripheral irritation of the sympathetic nerve. Experience has shown that in the greater number of cases this irritation lies in the upper portion of the respiratory tract. The posterior surface of the turbinates, the interarytænoidal commissure, the posterior surface of the trachea, and the membrane at the bifurcation of the trachea have been demonstrated to be the most sensitive areas in the respiratory tract. It is unquestionably an irritation of one or more of these areas which produces the symptoms of reflex cough, and I think it is a similar irritation which produces the symptoms of asthma. Among these areas, according to my experience, the interarytænoidal has seemed to be the most frequent site of irritation. This is due in many cases to a primary laryngitis, entirely independent of any pathological condition of the nose.

During the past winter I have had a number of these cases and I will report several which differ in some respects, but which all prove that the laryngeal irritation was the provoking cause of the asthmatic paroxysm.

CASE I.—Mrs. S., aged thirty years, had suffered all the previous winter and summer with attacks of asthma. In the autumn her difficulty of breathing and cough became so great that her former physician confined her to her room. When I saw her first, on January 1st, she was suffering intensely with asthmatic dyspnœa and periodical spells of violent coughing. This was especially severe during the night. Her chest was superresonant, and numerous rhonchi, dry and moist râles were heard over the chest. The nasal chambers and postnasal space were normal; the larynx was intensely hyperæmic and swollen. She was given the iodide-of-potassium mixture, with codeine for the cough, and a full dose of antipyrine at night. Her larynx was painted with carbolated iodine. After the first application she experienced a certain amount of relief; the râles, however, still persisted and it was only after repeated applications that they grew less, until at length they entirely disappeared. On January 20th she stated that she felt perfectly well. On the 1st of March she left for California. During her stay there she caught a cold, and her cough, with a slight touch of asthma, returned. These symptoms soon disappeared under the iodide-of-potassium mixture, and since then there has been no recurrence.

CASE II.—C. W., a merchant, has suffered from attacks of asthma for several years, the seizures coming on with varying degrees of intensity every few weeks. During the last autumn and early winter he had almost continuous attacks, and was utterly unfitted to attend to his business on account of exhaustion and sleepless nights. I saw him for the first time on January 21st. He was then suffering from an attack of asthma. There was great dyspnœa and his speech was typical of the asthmatic subject. The chest was superresonant on percussion, sonorous and sibilant râles were heard, and the expiratory sound was greatly prolonged, being partially obscured by the râles. There was a certain amount of catarrhal degeneration of the nasal membrane, and there was a chronic ulcer on the sæptum. The mucous membrane in the interarytænoidal space was thickened and congested. The first application to the larynx of carbolized iodine, made with a cotton brush, gave immediate relief. the dyspnœa disappeared, and, as he expressed it, "the tightness of his chest was loosened." The sonorous and sibilant râles could no longer be heard, and they were replaced by a simple harshness of the respiratory breathing. He was ordered the iodide-of-potassium mixture. From this time on the asthmatic symptoms remained quiescent, except at the times when he caught cold they would appear in a modified form. He was then always immediately relieved by local applications to the larynx. I saw him late on May 1st. He reported that since March he had had no return of the asthma.

CASE III.—Mrs. J. S., aged thirty, a visitor from Michigan, stated that she had had asthma with violent nocturnal cough for over six months. Dyspnœa was almost continuous and became greatly aggravated during the early morning hours. She had tried a number of asthmatic remedies without relief, and had sought a Southern climate, hoping to obtain some benefit. I saw her first on February 15th. On examination, the chest was found superresonant and numerous sonorous and sibilant râles could be heard. Her nose contained polypi and the larynx was in a state of subacute inflammation. An application of carbolized iodine was made to the larynx; she was given stramonium to smoke and codeine for the cough and also given the iodide-of-potassium mixture.

The night following the application to the larynx was a great improvement on the preceding ones, and with daily applications to the larynx she continued to improve for about ten days, suffering very little at this time from asthma or cough. Nothing was done for the nasal polypi, owing to her disinclination for an operation. About two weeks after her first visit she caught a cold and the asthmatic paroxysms returned in a less violent form. I then removed the nasal polypi, but without any effect on the asthma. Becoming discouraged, she left the city.

CASE IV.—J. P., aged sixty, a public officer, had suffered for years with periodical attacks of asthma, coming on, as he stated, whenever he caught cold. I saw him first on March 15th, in the evening. He had just returned to the city from a distant point, and had contracted a cold on the sleeping-car. His breathing was labored and he had the broken speech so characteristic of the paroxysm of asthma. He stated that he had been suffering with the paroxysm for twenty-four hours, and had been unable to sleep the previous night, owing to difficulty of breathing. Examination showed the presence of mucous polypi in the nose; the larynx was also in a state of subacute inflammation, the chest was superresonant, and numerous sibilant and sonorous râles obscured the respiratory murmur. An application of the carbolized iodine was made to the larynx, and this gave immediate relief; the tightness of his chest was loosened and he expressed himself as feeling much more comfortable. On examination, fifteen minutes later, it was found that the râles had almost entirely disappeared. I saw him the next day, and he reported that he had had an excellent night, that he had slept well, with very little asthma. Daily applications to the larynx for four days restored the respiratory sounds to their normal condition. His voice was perfectly natural and he declared himself entirely free from asthma. No attention was given to the nasal polypi. As constitutional treatment, he received codeine, nitroglycerine, and the iodide-of-potassium mixture.

These cases could be largely multiplied, but that would only be repetition. The cases selected represent types which show certain different conditions. Case I represents a patient with a laryngobronchitis, the nasal chambers being normal. The asthma disappeared after local treatment and the use of constitutional remedies. In Case II we find a laryngeal lesion with a chronic catarrhal condition of the nares. No treatment was given to the nasal or postnasal space, and permanent relief was obtained by local applications to the larynx and constitutional treatment. In each of the other cases, III and IV, there were nasal polypi in addition to the laryngeal lesion. In both cases the asthma was broken without any attention to the nasal polypi. In Case III, in which the asthma returned, the nasal polypi were removed without giving relief from the paroxysms. In all these cases, local treatment was combined with the well-known constitutional remedies. This I think always necessary to give permanent relief from asthma.

If our theory of asthma is correct, we can see the necessity of the constitutional as an addition to the local treatment. We know that, from some still unknown cause, some persons have a disposition to asthma under the stimulus of local peripheral irritation. Nasal polypus, a laryngitis, or a tracheitis can never produce the true asthmatic paroxysm in an individual unless he has the inherited or acquired asthmatic habit or disposition. The proof of this is evident when we consider the vast number of persons presenting these local lesions who have never shown the slightest tendency to asthmatic dyspnœa. When, however, the disposition is present, either of these lesions can provoke the paroxysm. The local application of carbolized iodine gives relief, partly through its anæsthetic effect, and also through the local stimulation. We see in other cases the same results when it is applied to the nose or the pharynx. Undoubtedly there is also a certain psychical effect, which exerts a powerful influence on the vasomotor nerves. Duclos's treatment of asthma, the local application of aqua ammoniæ to the pharynx and the use of the cautery, probably owes its good effect to this influence.

SECONDARY HÆMORRHAGE FOLLOWING USE OF SUPRARENAL EXTRACT.*

By FREDERICK E. HOPKINS, M. D.,
SPRINGFIELD, MASS.

In this brief paper but a single point regarding the effects attending the use of the suprarenal extract will be offered for consideration—that of the occurrence of secondary hæmorrhage following its use in operations in the nose. This new agent met with such an enthusiastic reception on all sides, and for us has proved so valuable, I might almost say so indispensable, that no apology is needed for inviting discussion which shall tend to give a better knowledge of any one of its qualities and make its employment altogether safe. Its universal use quickly established the fact that it had many virtues or that its one virtue, that of producing ischæmia, made it invaluable in a wide variety of conditions; and there is no intention of assailing it in any of these strongholds.

The surprise and gratification attending its use for the first time, enabling one to do a bloodless operation within the nose, cannot soon be forgotten. Notwithstanding all the reports regarding its blanching powers, the experience of actually cutting into the sæptum without starting a smart flow of blood was a strange one, bordering on the marvelous, and as pleasing as it was surprising. After a considerable and highly favorable experience with its use in intranasal operations, and for a variety of acute and subacute lesions of the upper air passages, I became enthusiastically devoted to its use. That it should be possible to charge anything against it, I was for a long time unwilling to admit. Yet, in my first case, there was secondary hæmorrhage.

This patient, Miss C., was a pupil in the high school, and the operation was for the removal of a posterior exostosis of the sæptum. The operation was done under the combined effects of cocaine and suprarenal extract. In accordance with my custom up to this time, the fossa was packed. This packing was removed by the patient about three hours after the operation. A hæmorrhage at once occurred and was sharp enough to alarm the patient, who lived out of town, and I was telephoned regarding it. From what was said I did not consider the hæmorrhage a serious one and gave directions for packing the nose again. This fortunately sufficed to stop the bleeding. I thought this accident due to the early removal of the packing and did not charge it against the suprarenal extract.

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*Read before the American Laryngological Association at its twenty-second annual congress.

Having faith in the blanching power of this agent and wishing to relieve patients of the annoyance of packing, a period now followed in which I left off that, to the patient, disagreeable incident in the technics of nasal operations. In many cases no accident attended this change in the method of after-treatment, yet in a considerable proportion secondary hæmorrhage occurred, coming on from two to six hours after operation. This was sometimes so sharp as to require packing. As illustrative, and for the purpose of showing that my contention is not simply an assertion, I will mention briefly two additional cases. In none of these three—which might be largely added to—is there a history indicating hæmophilia. The patients represent different ages and different walks in life, and upon all I have done other operations without unusual loss of blood.

J. T., male, 26 years of age, operative in a factory. Operation for a removal of an exostosis of the sæptum, January 4, 1899. About three hours after the operation I was telephoned by the family physician that the patient was having a considerable hæmorrhage. I directed that fossa be packed. An hour later came an urgent call for me to visit the patient, as it was impossible to control the bleeding.

M., 41 years of age, a clergyman. Exostosis was removed from the sæptum, December 5, 1899. Within two hours a message came that the patient was bleeding badly. He was, however, able to return to my office during the day, and after some difficulty the hæmorrhage was controlled. This patient lost a great deal of blood and seemed much prostrated. He was confined to the house for three weeks following the operation.

These cases and many others made it plainly evident that post-operative hæmorrhages were becoming more frequent and troublesome than formerly. Often, in the case of patients living at a distance, the hæmorrhage did not occur until after they reached home; a fact which added to the alarm and, sometimes, to my great inconvenience. I tried to account in various ways for this tendency to bleed; by too early removal of packing, too active exercise such as long or hurried walks, or indeed in any way rather than to charge the cherished extract with the fault. In truth I was conscious of a feeling as of disloyalty to a friend, while the suspicion grew that the hæmorrhage was due to the relaxation following the strong primary stimulation of the suprarenal extract.

In addition to these results following its employment in operations, it was occasionally observed that in some patients there was an idiosyncrasy against its use, violent coryzas following its application to the nasal mucous membrane. In some patients I observed this irritation at one time and not at another. In one case I sprayed the nose freely with the extract for an intercurrent coryza, and promised the patient speedy relief from her symptoms. She left my office breathing freely and in perfect comfort, properly impressed with the value of medical services as dispensed in Springfield. Within two hours she began to sneeze violently, and kept it up continually for more than twenty-four hours. This patient is a good, strong, clear-headed woman, with an excellent command of English, and a verbatim report of what she said on her return to my office would greatly enliven this paper. This episode was followed by a considerable interval during which most satisfactory results attended the use of the extract in acute and subacute lesions, when another amiable woman, an ear case, had the misfortune to contract a cold and the greater misfortune to complain to me of it when she called for treatment of the ear. I promised her prompt relief and sprayed her nose with enthusiasm and suprarenal extract. She returned to me two days later with eyes still suffused saying, "Oh, Doctor! what did you apply to my nose when I was last here? Within an hour I began to sneeze and kept it up constantly for a whole day." These two cases are mentioned to show the idiosyncrasy of which I spoke, and they at the same time illustrate the relaxation which *may* follow the primary stimulation induced by the suprarenal extract.

Wishing to know if others were having experiences in any way corresponding to mine, I wrote to friends and to representative laryngologists in various parts of the country, inquiring especially as to experience in relation to secondary hæmorrhage following operations performed under the combined influence of cocaine and suprarenal extract. Responses came in every case, and a lively interest was shown in the employment of this truly remarkable preparation. I propose to give you the benefit of these replies. There is a general consensus of opinion that secondary hæmorrhage occurs, or, anticipating its possibility, some whom we know as careful, prudent men, take no chances, but pack the fossa before allowing the patient to leave the office, thus forestalling any accident. Others continue the effect of the extract by giving the patient a solution which is to be applied to the wound at intervals for a period following the operation. Among the replies there is but one, coming from a man who had used the extract extensively, which states positively that no cases of secondary hæmorrhage have been seen, and the writer does not think they occur. The unanimity of so many other observers leads me to think that this one should be classed among those prudent operators who pack carefully before dismissing the patient—though he did not state that this was his custom.

It may be interesting and instructive to quote from representative letters received in reply to my inquiries.

Dr. J. L. Goodale of Boston writes: "After using cocaine and suprarenal extract in something over one hundred intranasal operations during the past year, I have come to regard the hæmorrhage occurring during the subsequent period of relaxation as always greater than would have occurred under cocaine alone. This fact has seemed more marked in operations on the turbinates than in those upon the sæptum. (My own experience confirms this observation.) In several cases where an operative procedure had to be repeated on the same patient, I used, for purposes of making a comparative test, on one occasion cocaine alone, and on another occasion cocaine and the suprarenal extract. The result has confirmed the above statement. In two cases following the use of the extract the hæmorrhage might fairly have been termed alarming."

Dr. Arthur B. Duel says: "I have used the suprarenal extract very frequently both in hospital and private practice. In almost every instance where the extract has been efficient in controlling the hæmorrhage at the time of the operation, a brisk hæmorrhage has occurred from two to six hours later. This has been so constant that I now always warn the patient that it is likely to occur. It is difficult to say certainly whether this hæmorrhage has been greater than would have occurred at the time of operation had the extract not been used. From the reports, however, I am inclined to think that it has in several cases. In any case a hæmorrhage coming on in the absence of the surgeon, several hours after the operation, is quite likely to be more alarming to the patient, and also likely to be prolonged by his efforts to stop it. In two cases where I have seen the patients there has been alarming hæmorrhage. In neither of them was there any history which would make me suspect a bleeder. For these reasons I have abandoned the use of the suprarenal extract in cases where practically as good results can be obtained by operating rapidly. I think that my experience is that of the men who are immediately associated with me at the Manhattan hospital."

Dr. J. F. McKernon writes: "In every instance where I used the suprarenal extract I found I had a secondary hæmorrhage, either slight or marked. I always pack the nasal cavity with plain sterilized gauze after an operation."

Dr. Emil Mayer speaks very positively upon the subject, reporting for Dr. Asch's clinic as well as his own. "In all instances we pack the nose with iodoform gauze, as before the use of the suprarenal, and, as formerly, all patients are directed to return to the hospital at any time if the bleeding is at all sharp. The number of patients who have presented themselves at the hospital for hæmorrhage, appearing within the first twenty-four hours, has been very much larger than when cocaine alone was used. In my private practice I have noticed a much greater tendency to bleeding after operation than formerly, and I am compelled to state that I am now very reluctant to use the extract."

Dr. H. L. Swain writes: "My attention has been called to the matter a number of times, but I have not observed secondary hæmorrhage oftener than formerly. Indeed, I have had fewer cases of post-operative hæmorrhages during the past two years than in the year just previous. This may have been pure chance—a better line of cases. Perhaps a little habit I have of using an extra spray of the suprarenal just before the patient leaves the office may account for my apparent immunity."

Dr. T. Melville Hardie gives the patient a solution of the extract to be used in case of hæmorrhage. He says: "I can answer your questions very shortly because, in general, my experience with the suprarenal extract corresponds with your own. I believe that the bleeding which comes on sometimes after operation is more likely to be severe than when cocaine alone is used. On account of the likelihood of bleeding I am accustomed to give the patient a solution of the extract for use at home, which is to be employed only in the event of hæmorrhage. Since doing this I have had no trouble."

Dr. G. A. Leland speaks positively as follows: "I have been very cautious about trusting wounds after the use of the extract. The extreme blanching of the tissues has made me careful in this respect. I have, therefore, never relaxed my vigilance, and have packed wounds in the nose with as much care as formerly. I think I have had, on a few occasions, reports of rather greater oozing than before the use of the extract. It has seemed to me also that the reaction after the use of this extract in a two-per-cent. solution has been greater than after the use of a ten-per-cent. cocaine solution, and in my method of treating atrophic rhinitis, that is, by the secondary effect of the cocaine, making use of the extreme congestion in the paralytic stage, I have found the extract a good assistant. It seems to me I get more blood into the tissues than with cocaine alone."

Dr. John O. Roe also packs after intranasal operations. He wrote in reply to my inquiry that he had had no experience in the way of secondary hæmorrhages. To quote directly: "In all operations where I would naturally expect to have hæmorrhage without its use I pack the wound so carefully that I have never had any secondary hæmorrhage whatever. The extract so completely arrests the hæmorrhage at the time of operation that one might easily be misled with regard to the probability of its recurrence later on, by believing that no important vessels had been injured. My bump of caution is so largely developed that in all operations in the nose or on structures in which many blood-vessels are naturally found, I always take it for granted that sufficient have been injured to cause hæmorrhage when the effect of the extract has disappeared, and I therefore pack the wound to guard against such accident. If I left the nostril open, as some of my confreres do in ordinary operations within the nose, I have no doubt I would have had severe secondary hæmorrhage in many cases."

Dr. Leon E. White, of Boston, used the extract daily both in hospital and private practice for a period of nine months, but he had such trying experiences with secondary hæmorrhage that he has abandoned the use of the agent in operations, preferring, so he says, to get the bleeding at the time of the operation, and then to use whatever packing may be indicated, instead of permitting the possibility of a secondary hæmorrhage, which might be fatal, should the patient be unable to get proper medical attention.

I have used the suprarenal extract extensively in acute and subacute lesions of the mucous membrane of the upper respiratory tract, for the purpose of reducing congestion, and always with gratifying primary effect. With few exceptions, already referred to as idiosyncrasies, this good effect has been a relief, which might be called to a certain extent permanent—that is, the relaxation which follows has rarely reverted to the degree of congestion which was present at the time of the first application. Thus spraying the larynx, for example, in a case of acute inflammation has brought prompt amelioration of distress; and a repetition of the treatment, say at intervals of twenty-four hours, has induced steady advance toward complete recovery, there having been no retrogression toward the original state. The same has been true of the nose.

I have had among my patients, suffering from acute inflammation of the nose and throat, several physicians whom I regard as careful observers. Without stating my object, I have asked from each a careful report of his experiences following the application of the extract to the nose, pharynx, and larynx. Their reports have confirmed the observations above stated. It was such facts which made me so slow to charge the extract with the responsibility for secondary hæmorrhage following operations. In none of the above acute and subacute cases had cocaine been used. When I experimented by applying both cocaine and suprarenal extract to the nasal mucous membrane a very different condition was observed. Here, after a few hours, the relaxation was marked, occluding the nasal fossæ. In the same patient I have sprayed one nostril with suprarenal extract and cocaine, the other with the extract alone. After two or three hours the fossa treated with the two agents was occluded by relaxation of the mucous membrane, while the other one, having the extract only, remained clear. I have not tried this extensively enough to say that such a result always follows. It probably does not, otherwise we would get secondary hæmorrhage in every wound not packed. That it occurs often is undeniable. You will remember that Dr. Leland, in his letter, says he makes use of this fact in the treatment of atrophic rhinitis—that is, by applying both these agents he secures the greatest possible congestion of mucous membrane, in the stage of relaxation.

It would thus seem that the powerful stimulation to contraction of the swollen mucous membrane, induced by the suprarenal extract, while equal to retaining a grip on the dilated blood-vessels for a long time, does not yet suffice to prevent indefinitely, but only to delay, the paralytic stage following the use of cocaine. It also seems to be true that the final relaxation attending the combined use of the two agents is greater than that following cocaine alone.

This presentation is not intended as an argument against the use of suprarenal extract in intranasal surgery. Calling attention to the dangers which attend its use in surgery, carries with it the suggestion of safety. Let the nasal fossa be carefully packed after every operation. My own preference is for the employment of a packing saturated with an astringent.

A RÉSUMÉ OF SOME PAPERS PRESENTED TO THE THIRTEENTH INTERNATIONAL CONGRESS OF THE MEDICAL SCIENCES.

The following papers are abstracted from the *Comptes rendus* furnished by the *Agence centrale de la presse scientifique internationale.*

Section on Medicine.

Cacodylate of Sodium in the Treatment of Malarial Cachexia.—M. H. Billet, médecin-major of the first class, attached to the military hospital at Constantine, Algeria, said that thirteen cases of malarial cachexia more or less pronounced, and consequent upon repeated attacks of intermittent fever of varied type, had been treated with cacodylate of sodium. This drug, following immediately on treatment by quinine, had restored the red blood cells from about 3,500,000 (in cases 2,500,000 per millimetre) to normal, and even above that, viz.: to upwards of 5,500,000, in the space of from fifteen to twenty days. The number of injections had been from five to six, at intervals of three or four days, the dose employed being three and three-quarter grains for each injection. In two or three cases, one-and-a-half-grain doses had been used. The hæmoglobin proportion had been raised simultaneously with the increase of red blood corpuscles from between nine and eleven per cent. to, progressively, eleven, twelve, twelve and a half, and thirteen and a half per cent—or almost normal. The weight had likewise followed an ascending progression. The author considered this treatment following upon quinine as distinctly restorative from the effects of malarial cachexia.

Cyclic Albuminuria in Adolescents.—Dr. H. Dauchez, pointed out that cyclic albuminuria in adolescents was connected sometimes with a diathesis, especially gout, and at others with an infective cause, for example, with typhoid fever. He recorded the results of his own personal observations in regard to the first form, and concluded that cyclic albuminuria was often misunderstood, that it was at first a purely functional trouble, and that this misunderstanding frequently transformed it into a nephritis with uricacidæmia. In all cases, he held that this variety of cyclic albuminuria ought to be regarded at the beginning as a separate type, and that the name of "cyclic albuminuria" should be reserved for it, and that of "intermittent albuminuria" should be discarded as depending upon a characteristic of all morbid albuminurias in process of cure.

The Hæmo-leucocytic Formula in Paludism.—M. Billet, médecin-major of the first class, attached to the military hospital at Constantine, Algeria, said that there existed in paludism a hæmo-leucocytic formula already presented in the works of Kelsch, Dionisi, Bastianelli, and Vincent, which, always essentially identical whatever the nature of the intermittent access, varied according to the different phases of the evolutionary cycle of the hæmatozoa and of the access itself. It consisted: 1. In a premonitory hyperleucocytosis which attained its height in the cold stage, that is to say at the moment when the hæmatozoa were about to undergo endogenous or asexual multiplication; 2. In a consecutive hypoleucocytosis which attained its height at the end of the access, or at the beginning of the next ensuing access (in the quotidian type), that is, at the moment when the hæmatozoa were scattered in the serum under the form of small amœboid bodies and were about to infest new cells. 3. The paludal hæmo-leucocytosis was always a lymphocytosis, that is to say, it affected principally the lymphocytes of which the proportion might reach sixty, seventy, or even eighty per cent. of the total number of leucocytes. 4. In the treatment of the access by salts of quinine, there existed equally a hæmo-leucocytic formula which was an exaggerated reproduction of the preceding one. To the hypoleucocytosis at the onset (supervening from three to four hours after the administration of quinine) succeeded a quinine hyperleucocytosis, which persisted as long as the hæmatozoa remained in the blood and the treatment was continued. The leucocytic equilibrium was established *pari passu* with the gradual disappearance of the hæmatozoa. Quinine, by favoring phagocytosis, was thus the specific medicament *par excellence* in malarial conditions. To sum up, the study of hæmo-leucocytosis in paludism possessed great value from the triple point of view of diagnosis, prognosis, and treatment.

Repeated Double Auricular Hæmorrhages in a Woman Sixty-three Years of Age.—Dr. A. Grossard, of Paris, after referring to previous communications on vicarious menstruation by the ears, reported the case of a woman sixty-three years of age, who, not having menstruated for over ten years, had been attacked, following upon considerable annoyance, with hæmorrhages from both ears, for over a year. The first flow of blood lasted for four hours. It amounted to about two tablespoonfuls, according to the patient's estimate. Since that time, and in spite of treatment, the right ear continued to shed blood at irregular intervals varying between ten days and a month, and furnishing each time about a teaspoonful. Violent headaches and slight vertigo preceded the flood, but hearing was not affected even during the otorrhagia. The examination of the hearing and of the tympanum was negative. The patient denied having ever presented, even during childhood, any neurotic symptoms. The menses had been regular up to the age of fifty-two, at which time they had totally disappeared. She had never had hæmorrhoids or epistaxis. There was no atheroma. The liver was normal. Seeking for an explanation, the author was in opposition to the dictum of Gradenigo, who wrote "that the relations existing between otorrhagia and menstruation could not be doubted"; he rather sided with those authors who attributed these hæmorrhages to neuropathic troubles.

Addison's Disease and the Symptomatology of Capsular Inadequacy.—Dr. Émile Sergent and Dr. Léon Bernard referred to a previous paper by them, published in the *Archives Générales de Médicine* for July, 1899, in which they endeavored to draw a distinction between Addison's disease and the clinical symptoms of capsular inadequacy, and to work out the pathology of the suprarenal capsules. They distinguished the two conditions as follows: 1. The syndrome of capsular inadequacy which was due to the existence of destructive lesions of the suprarenal capsules and corresponded, on the whole, with the clinical data described under the title of "abortive forms" in Addison's disease. 2. The bronzing disease of Addison, in which melanoderma was invariably present, but in the course of which accidents attributable to capsular inadequacy might occur. This distinction justified the assumption that the bronzing malady might develop entirely independently of any lesion of the suprarenals (the nervous theory), notwithstanding that the symptoms of capsular inadequacy were supposed necessarily to indicate the existence of a lesion of these glands. The symptoms of capsular insufficiency bore the same relation to lesions of the suprarenal as did hepatic inadequacy to the hepatitis of ague. They might develop suddenly despite all the appearances of sound health, or they might develop gradually and insidiously in consequence of an accident either of recent or of long past date.

The appearance of a train of clinical symptoms having a general resemblance to the symptoms following the experimental ablation of the suprarenals, in conjunction with an established, constant alteration of these glands, permitted the establishment between these two terms of a causal relation and the consideration of the morbid complexus as the direct effect of capsular inadequacy. But, the authors asked, if the accidents which proved fatal declared themselves subsequent to some light infectious disease, was that sufficient reason for considering that death was solely the result of the infection superadded to a latent suprarenal insufficiency, and that the symptoms observed arose from this infection and were not direct signs of the capsular inadequacy? They did not think so, and, referring to their previous researches, considered that the capsular insufficiency was the sole cause, and that the infection played only a casual part. Moreover, the symptoms of insufficiency might burst forth under the most varied conditions (aseptic traumatism, etc.), and even suddenly without any obvious cause, and the accidents observed invariably took the same turn. And, finally, did we not see absolute hepatic insufficiency burst forth suddenly (during an erysipelas for instance) in the course of a hepatitis till then well supported by the patient, and should we maintain in such an occurrence that the accidents noted were symptoms of erysipelatous infection and not signs of hepatic insufficiency?

Section on Surgery.

Exstrophy of the Bladder Cured by Trendelenburg's Method.—M. H. Delagénierè, of Mans, said that the use of Trendelenburg's method had given such poor results that he commenced to doubt the possible realization of the hopes it had aroused, when the following fact caused him to change his views. He presented a patient, eleven years of age, the subject of vesical exstrophy, who had undergone many unsuccessful operations since infancy. Trendelenburg's operation had been performed in this case, and seven supplementary operations had been called for, but a radical cure had resulted. The patient was not only continent, but his sphincter acted perfectly.

The Remote Results of and the Indication for Vaginal Ligation of the Uterine Arteries in Cases of Myoma of the Uterus.—Dr. Sigmund Gottschalk, of Berlin, said that: 1. Vaginal ligature of the uterine arteries in their different branches from the uterus to the point of division was an operation entirely devoid of danger. It was preferable to ligate in three or four stages, after the freeing of the bladder, the cervix, and the broad ligaments on each side, the ligamentum cardinale and the base of the broad ligament, with strong silk in a Deschamps' needle. This operation was well supported even by women entirely exsanguine and exhausted, who would assuredly succumb to radical intervention. 2. After this operation the uterus and its tumor could receive no more arterial blood save by the internal spermatic artery and by means of the artery of the round ligament from the terminal ramifications of the epigastric artery. (It would be easy to eliminate at the same time the anastomoses of the round ligament by tying them en masse in the inguinal region.) 3. The nutrition of the uterus was assured after the operation. 4. The vaginal ligature of the uterine arteries, in suitable cases, could subdue better than any other palliative method, the hæmorrhages of myomata, and reduce the tumors to nuclei so small that they were no longer evident on clinical examination. 5. But it was essential to choose cases suitable to the method. 6. The following data were submitted: (*a*). The myomata most amenable to the method were essentially interstitial myomata developed in the inferior and middle portions of the womb, rather than those situated at the fundus. Intraligamentary tumors were altogether inadmissible. (*b*). The nearer the subject to the menopause, the greater the chances of a radical success by the method of ligature. (*c*). The method was especially applicable in those cases in which the tumor did not exceed in size a woman's head. (*d*). If pelvic peritonitis had preceded, it was very likely that the tumors had contracted adhesions with neighboring organs, particularly with the epiploön, and that they drew therefrom new arterial vessels which would render success doubtful. 5. Before the scraping of the uterine mucosa, which is always the first step in the operation, the uterus should be dilated with a tent in all cases in which there was reason to suspect a myoma beneath the mucosa, since it was better to extirpate radically the myomas situated in the uterine cavity.

The Section on Gynæcology.

On Forcipressure of the Uterine Arteries in Fibroma.—M. Goullioud, of Lyons, said that, while hysterectomy is the usual intervention of choice, minor measures are often of service. He considered myomectomy, abdominal or vaginal; castration; and ligation or forcipressure of the uterine arteries. He spoke specially of the latter, which he had successfully employed in selected favorable cases since 1894. The patients were between forty and fifty years of age with fibromata in course of development, confined to the pelvis, or, at least, not reaching to the umbilicus, and accompanied by hæmorrhage. The results accorded with those of the supporters of ligation. There was always a complete arrest of hæmorrhage and a retrocession of the tumor easily perceptible and clearly proved by the diminution in the uterine measurements. Cases were quoted in support. The operation had the same circular incision as for vaginal hysterectomy, with prolongations into the lateral culs-de-sac; the bladder in front and the rectum and posterior peritonæum upon the uterine walls were disengaged by the finger so as to isolate the hypogastric sheath. This latter being freed, the vascular layer was seized with a long, straight forceps to the extent of five centimetres and grasped for from five to six centimetres so as to surely enclose the uterine arteries. The forceps was left in position for from twenty-four to forty-eight hours. The author claimed greater facility of execution rather than any special merit for forcipressure as compared with ligation. In a case of tumor reaching to the umbilicus the hæmorrhage was arrested, but no diminution of the internal uterine measurements followed. Forcipressure was a valuable resource in rebellious hæmorrhagic metritis.

Salpingostomy.—M. Goullioud, of Lyons, spoke of the attempt to conserve the Falloppian tube by salpingostomy, as analogous to the modern conservative operations replacing Lawson Tait's plan of ablation of both appendages for preventive reasons, even when those on one side were sound. When a diseased tube was found with its fimbriated extremity obstructed and its cavity distended by fluid, the diseased portion of the tube was resected and a peritoneal outlet made of the stump of the tube by sutures uniting the everted mucosa to the tubal serous coat. A slight scraping of the tubal lumen enlarged this orifice. The ovary was disembarrassed of the adhesions fixing it and rendering it microcystic, and, if necessary, partly resected. The adnexa on the side where were the worst lesions were generally removed. He had performed this operation successfully without any mortality in cases of chronic salpingo-ovaritis in the intervals between attacks and when no pus was encountered, at least on the side operated upon. Cicatricial occlusion of the extremity and hydrosalpinx were the most favorable cases.

Section on Pædiatrics.

The Clinic for Nurslings at Dresden.—Dr. Schlopmann and Dr. Flachs have established at Dresden a special clinic for nurslings and a polyclinic for children. The clinic contains twenty-five beds for infants under one year of age, surgical and contagious diseases not being admissible. Children are nourished at the breast by wet nurses from the Dresden maternity. Artificial alimentation is conducted chiefly by a mixture of cream and water in the same proportions as in maternal milk. The milk is examined as to its acidity, butter, glycose, etc., in the clinical laboratory. The apparatus of Soxhles is used for dry sterilization of the flasks, which, when filled, are exposed to a temperature of 37° C. for from five to ten minutes. The greater part of the flasks are distributed to the patients of the polyclinic for a moderate fee, or even gratuitously. The mothers have only to warm the flasks before giving them to their children and to replace the stopper by a teat. The authors consider that clinics especially devoted to nurslings greatly facilitate the study of the problem of infant mortality.

Correspondence.

LETTER FROM PARIS.

The Thirteenth International Medical Congress—Some of the Clinics—The Addresses—A Prize for Ramón y Cajal.

Paris, August 9, 1900.

The Thirteenth International Medical Congress has just come to an end, and everybody is asking himself of how much benefit it all was. If a man confined himself to attending the meetings of the congress, he did not derive very much benefit unless he was a very proficient linguist, as the time allotted to the readers of papers was so short that the majority of them spoke with great rapidity, so as to make it more or less difficult to follow them if you knew the language, and if they happened to be speaking in a tongue which was foreign to you, the task was still greater; and, as the discussion of the various topics was also more or less limited, it is a question how much benefit was derived from the meeting. Those, however, who spent the mornings in visiting the different hospitals and private clinics, so numerous in Paris, found ample reward for their labors.

I spent one morning with Redard at his dispensary Furtado-Heine, and saw Lorenz try to reduce a congenital dislocation of the hip by the bloodless method. I was extremely interested in this, as I had seen several gentlemen endeavor to perform this operation in this country without, to my mind, succeeding in replacing the head of the femur in the bottom of the acetabulum, and I do not think that in this instance the head passed within the cotyloid ligament, although there was a very distinct clicking as the head of the bone slipped from place to place on the ilium, and I had very grave doubts in my mind whether Lorenz himself was entirely satisfied with the result. However, the child was put up in the usual position of extreme abduction, exactly like a broiled chicken, and if I see it in two years from now I shall know whether time and locomotion have succeeded in forcing the head through the cotyloid ligament into the acetabulum, or whether it has slipped out to form a new resting place for itself on some other part of the ilium.

Another morning was spent at Doyen's private hospital, which is a most beautiful building, but recently finished, in the rue Peccini, and is said to have cost a million francs.

The operating room is beautifully arranged, with a splendid large window for use in the day time and numerous electric lights which are set in glass balls in the ceiling to furnish artificial light. In one corner of the room stands a cinematograph, which Doyen uses for the purpose of illustrating various steps of his operations when lecturing. While we were waiting for a patient to be prepared, a number of moving pictures of operations were thrown upon the screen in the adjoining room. Only a man who operates with the dexterity and rapidity of Doyen could make practical use of the cinematograph for this purpose. He did a craniectomy in twelve minutes, and an abdominal hysterectomy in fifteen, and at least half the time was occupied in closing the wound. His dexterity, as well as the intelligent application of mechanical principles, shown in the numerous instruments which he has devised, are worthy of all praise. He is a charming talker, and, although he speaks with great rapidity, enunciates so clearly as to make his remarks as easily comprehended by persons with a fair knowledge of the French language, as if he were speaking in their native tongue. He has a great eye to the main chance, however, and I was very much surprised on strolling through the building of the principality of Monaco, in the Exposition, to find one entire wall occupied by Dr. Doyen's exhibit. Pictures of the hospital—outside and inside—all his various instruments, all the photographs of his researches on gunshot wounds, all the various firearms with which the wounds were made, and a large bundle of medical journals giving detailed descriptions of the various apparatus, very much after the fashion of an instrument-maker's catalogue.

His hospital is extremely complete and comprises, among other things, a bacteriological and chemical laboratory and a photographic department, for not only does he photograph his operations, but also all his visitors, whom he especially requests not to look at the camera, but to look at the operation and seem interested, when the photographer presses the button.

The success of the congress was largely due to the president, Professor Lannelongue, who helped the finances with a gift of a hundred thousand francs.

The first general assembly, in the great hall of the Exhibition, on the 2d of August, should have been opened by the President of the Republic, M. Loubet, but, on account of the assassination of King Humbert, he was compelled to be absent and his place was taken by M. Monis, the Minister of Justice. The official languages of the congress, as is usual, were German, French, and English, but, as a mark of respect to the memory of King Humbert, so recently assassinated, Italian was added as one of the official languages, showing that the French character, although full of sympathy and artistic taste, is yet strikingly illogical.

I shall not disturb you with a condensed report of Virchow's speech on Traumatism and Infection, or Pavlov's Experimental Therapy as an Aid to Physiological Research, as you will read them all at length before long in half the medical journals of the world; as also will be the case with the other addresses delivered at the second and third general assemblies, which were held in the Sorbonne. Baccelli's was on The Treatment of Traumatic Tetanus by the Subcutaneous Injection of Phenic Acid; Burdon-Sanderson's on Some Pathological Problems of the Day; Jacobi's on American Medicine, and Albert's on The Architecture of Bone in Man and Beast.

The prize founded at the Twelfth International Medical Congress, in Moscow, 1897, was announced at the third general session of the congress as having been gained by Señor Ramón y Cajal, of Madrid, for his work in the study of the nervous elements. It was also announced that the fourteenth congress would be held in Madrid in 1903, and that the arrangements for the meeting would be in the charge of the medical faculty of the University of Madrid.

On registering, every member was provided with a copy of a medical guide-book of Paris, and also with a volume describing all the various mineral springs of France, so that he may be able in the future to direct his patients where to go in search of health.

The social part of the congress consisted of a reception at the Luxembourg, where there was a tremendous jam, and at which there was a sort of vaudeville which included the most distinguished artists of the Parisian stage. On the last day of the congress a reception was given by the President and Madame Loubet.

LETTER FROM LONDON.

The Centenary of the Royal College of Surgeons—Honorary Degrees—The Presidency of Sir William MacCormac.

London, July 27, 1900.

I have just returned from the reception given by the Lord Mayor, at the Mansion House, in honor of the centenary of the Royal College of Surgeons, and am looking at the *Souvenir*, which has been prepared by the president, Sir William MacCormac. It is a most interesting little volume, beautifully illustrated with photogravures of various prominent men who have been connected with this institution, including Charles Hawkins, the first master, and John Hunter and Sir Astley Cooper.

The first incorporation of physicians and surgeons into a distinct body, having for its object the effective control of those who practise medicine and surgery, took place in the year 1423. Previously, however, there had existed in London from time immemorial a guild of surgeons who had maintained a superiority over the guild of barber surgeons, who had remained unincorporated. The conjoined faculty of medicine and surgery of 1423 did not exist long, and soon after its dissolution the surgeons formed themselves into a corporate body with a code of laws.

This association was distinct from the barber surgeons, who had been incorporated in the first year of the reign of King Edward IV, and they remained a separate body until 1540, when they were joined with the barber surgeons under a royal charter, granted by King Henry the VIII, under the name of the Masters and Governors of the Mystery and Commonalty of the Barbers of London.

The barber surgeons appear to have borne their due share in the city's pageants. It is recorded that the Lord Mayor and Aldermen commanded that the company "should provide twelve of the most grave, comelyest personages, apparaled with velvet coats, sleeves of the same, and chaynes of gold, to attend the Lord Mayor on horseback."

This union of the barber surgeons lasted two hundred years, when, in 1744, a bill was introduced into the Parliament to make the surgeons and barbers of London into two distinct corporations. At the separation the barbers seemed to have succeeded in shaving the surgeons, for their corporation retained possession of all the gold plate. At the present time, on the occasion of some special banquet of the surgeons, the master barber is sometimes invited to be present, and at such times, in consideration of this courtesy, the massive gold plate of the barbers' guild adorns the table of the surgeons.

Medical London has been pretty well occupied all this week with this centenary, which opened last Wednesday by a conversazione held in the college, Lincoln's Inn Fields, and the first impression produced by the sight of ladies in evening dress strolling through the Hunterian Museum, was that of a ball in the Catacombs, as the larger part of the walls are lined with skulls representing every type of man, from the earliest period obtainable down to the present time.

On Thursday and Friday mornings the wonderful collections in the museum were demonstrated to those who chose to attend these demonstrations by Professor Stewart, the curator. All who attended enjoyed a most delightful treat, as there are few men who have so comprehensive a grasp of their subject and such a happy faculty of putting abstruse and difficult problems before their audience in a way so simple that a child can comprehend them.

On Thursday afternoon the honorary degrees of fellowship were conferred on the Marquis of Salisbury and the Earl of Rosebery, together with about thirty of the professors of surgery of the most prominent universities of the world, among the number being Dr. John Collins Warren, of Harvard; Dr. W. W. Keen, of the University of Pennsylvania; Dr. Robert F. Weir, of Columbia; Dr. William S. Halsted, of Johns Hopkins; Dr. T. G. Roddick, of McGill, and Sir William Hingston, of Laval University.

Prior to the conferring of these degrees, a delegation from the Council had waited upon the Prince of Wales and had conferred the degree of honorary fellowship upon His Royal Highness, who has recently also been made an honorary fellow of the Royal College of Physicians, and, it is said, is much pleased with the new honors he has acquired.

The gathering was a most striking one, especially to those who have not been accustomed to see the wonderful varieties of brilliant academic costumes which are in vogue in the Old World. With singular appropriateness, the representatives of the ancient universities of Bologna and Padua resembled the pictures of Father Time, and as they were clad in canary-colored satin petticoats and capes, with little caps of the same color on their snowy locks, they presented a picture not soon to be forgotten.

The Prime Minister was arrayed in the heavily gold-embroidered black robes of the Chancellor of the University of Oxford, while Lord Rosebery wore his Cambridge doctor's gown. There were robes of flame color, and black, and blue, and caps of assorted shapes and sizes, some with peaks, some without peaks, some with tassels and some without tassels, and quite a fair sprinkling of army surgeons, who looked very imposing in the glitter and gold of their full-dress uniforms.

A representative from each nation acknowledged the compliment conferred by the bestowal of the honorary degrees, and Dr. Keen, who spoke for America, received much applause when he said that Victoria, although not monarch of our persons, was the queen of our hearts.

On the evening of the same day a magnificent banquet was given to the honorary fellows in the hall of the Honorable Society in Lincoln's Inn Fields, a most splendid building, seating easily six hundred people. The walls are wainscoted in oak to a height of ten or fifteen feet, and above this there is a series of stained-glass windows, while the coats-of-arms of many illustrious members line the panels.

The Prince of Wales spoke most excellently. He has a charming voice, and one is especially struck by the absence of the usual rising and falling inflection so noticeable in most Englishmen's conversation. The same may be said, but not to so marked an extent, of Lord Rosebery, who answered to the toast of The Honorary Fellows of the College; but the Lord High Chancellor and the Marquis of Salisbury were not nearly so effective. In fact, the latter got somewhat beyond his depth in proposing the toast of The Royal College of Surgeons coupled with The President. He had apparently been struck—at least he said he had—in the afternoon by the venerable appearance of the two gentlemen representing the universities of Padua and Bologna, and equally struck with the vigor of the representative of the world's youngest university, Johns Hopkins, only some thirty years old. And he proceeded to tell us that he hoped there might be a chance for this young blood to vitalize the old universities of southern Europe, which were sadly in need of new life; and then, apparently realizing that this was hardly the occasion for making suggestions of this sort, however apt they might be, he had very great difficulty in extricating himself from the mire into which he had plunged.

The ceremonies were brought to a conclusion on Friday by the reception at the Mansion House given by the Lord Mayor, who must be prodigiously tired of doing this thing so many times in the year as his official station requires. I noticed that he was wise enough to retire very early in the evening and leave his guests to take care of themselves.

By the way, this is the fifth consecutive year that Sir William MacCormac has been elected president of the Royal College of Surgeons; so he is serving for a longer period than any of his predecessors.

Therapeutical Notes.

Sulphate of Sodium in Urticaria.—Wolff (*Journal des practiciens*, No. 24; *l'arte medica*, July 8th) prescribes in urticaria sulphate of sodium internally every three hours in doses of from 60 to 75 grains for adults and less for children. At the same time he orders the local application of the following lotion, which is largely used in America for eczema:

℞	Prepared calamine, Oxide of zinc, } of each...	90 grains;
	Carbolic acid................	30 "
	Lime water................	950 "
	Rose water.................	1750 "
M.		

For children the quantity of carbolic acid should be regulated by age. Urticaria is said to be cured in twenty-four hours by this treatment.

For the Enteritis of Nurslings.—The *Gazzetta Medica lombarda* for July 15th cites from the *Clinica moderna* the following:

℞	Distilled water..............	900 grains;
	Tannigen....................	9 "
	Lactic acid..................	30 "
	Syrup.......................	450 "
M.		

A coffeespoonful before each nursing. Sterilized milk may be given also.

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HOT AIR IN AFFECTIONS OF THE NOSE.

Two French surgeons, M. Lermoyez and M. Mahu, have been working at the task of finding a harmless substitute for the more or less destructive measures heretofore in use for the alleviation of certain nasal and nasopharyngeal affections. They feel convinced that they have found such a substitute in hot air, and they reported upon the subject at the recent annual meeting of the French Society of Laryngology, Otology, and Rhinology (*Gazette hebdomadaire de médecine et de chirurgie*, May 31st). Hot air, they remark, has before been employed in rhinology only by inhalation, but they use it in the form of a jet directed with precision upon certain spots or areas that are diseased. A current of compressed air is made to traverse a heated worm, and it enters the nose pure and dry at a temperature ranging from 158° to 194° F. Its action is very well borne, it gives rise to no painful reaction, either at the time or subsequently, and, above all, it produces no lesion of the mucous membrane.

The effects vary according to the morbid condition present. If there is obstruction due to simple chronic hyperæmia of the erectile tissue of the nose, it generally disappears totally and permanently; if it depends on true hypertrophic rhinitis, there is but little amelioration, the degree of relief being proportionate to the amount of congestion added to the degeneration. The nasal secretions are very much modified in cases of simple excess or hydrorrhœa, but mucopurulent discharges are only slightly influenced. Otalgia, a frequent accompaniment of nasopharyngeal inflammation, always yields to a few applications, and does not reappear. Reflex troubles are favorably affected; spasmodic sneezing generally subsides after only one sitting; asthmatic dyspnœa is alleviated in varying degree. Tinnitus aurium and deafness are mitigated only when they depend on disease of the nasopharynx or of the Eustachian tube.

The affections in which thermotherapy is chiefly indicated are spasmodic rhinitis, congestive rhinitis with nasal obstruction predominant, vasomotor rhinitis of the hydrorrhœic type, otalgia occurring with the congestive attacks in the nasopharynx, and stenosis of the Eustachian tube in the early stages. The authors warn the profession not to expect too much of the hot-air treatment, and they are somewhat apprehensive, in view of the ease with which it is applied and the fact of its being so well borne by the patient, that it may be abused. It is contraindicated in deformities of the sæptum, polypoid degenerations of the mucous membrane, purulent coryza, ozæna, syphilitic and tuberculous nasal disease, adenoid vegetations, and sinus suppuration.

SANITARY INSPECTION IN MASSACHUSETTS.

THE recent tracing of an outbreak of typhoid fever in the town of Norwood, Mass., to an infected milk supply, has apparently stimulated the State Board of Health to unusual insistence on the need of a corps of skilled medical inspectors whose duty it should be to inform the local boards promptly of all sources of danger from infectious diseases. Legislative action would of course be requisite for the authorization and establishment of such a corps, and it is to be feared that such action will be difficult to procure, for there seems to be a strong feeling among the people of Massachusetts against the creation of more State officials at the present time. Such a sentiment, however well founded it may be as a general guide, should not be allowed to stand in the way of measures that are urgently needed for the protection of the public health.

We all know that local boards of health, that is to say, municipal boards, particularly in small towns, are prone to magnify local and present interests to the detriment of ultimate and general purposes. They may hesitate to condemn a tuberculous cow, for example, because the owner of the cow is a popular citizen or one whom it would be impolitic for them to offend. Officials with a wider range of territory to look after, and answerable to a higher authority, are better supported in their conscientious endeavors to serve the public interest, and that only, and are not so easily diverted from the path of strict duty.

Massachusetts is a State that has always been well in the van of progress, especially in matters of public health legislation, and the work of her State Board of Health, both executive and experimental, has always met with the hearty approval of the medical profession. It is to be hoped, therefore, that the present popular feeling against more State officials will yield to the movement in favor of a stricter sanitary inspection. We understand that Dr. Walcott, of the State board, favors delegating the authority of inspection to the medical examiners, those medical officers who now perform in Massachusetts the duties that elsewhere devolve upon coroners and their medical assistants, and it certainly may be said of those gentlemen that they have shown themselves alert and conscientious in protection of the public interests.

SUMMER DRESS FOR MEN.

Making all allowances for the abominable corset and for skirts that have to be held aside by hand lest they should impede the wearer's movements or gather the filth of the streets, we must still admit that a woman's ordinary attire is much more comfortable than a man's, particularly in hot weather. When at work, men seek relief by taking off the coat, but convention has decreed that a man must not so divest himself when he is not at work. As a protest against this form of conventionality we have "the shirt-waist man" of the newspapers, some of which, by the way, confound that person with the man in his shirt-sleeves. It is to be hoped that the discussion now going on will lead to the adoption of comfortable summer clothing for men. The trouble, we think, lies not so much in the presence of the coat, which, indeed, is a protection in the direct rays of the sun, as it does in the close fit of men's garments. A loose, flowing garb of light texture is what is needed.

To begin with, we doubt if anything more uncomfortable than the starched, close-fitting collar was ever tamely submitted to by mankind, although the hats that are commonly worn are oppressive in hot weather. Why should a man hesitate to expose his throat to view? If the fashion of wearing a loose, low-cut, rolling collar could be brought about, it might, indeed, by inducing men to throw their shoulders back to detract from the prominence of the clavicles, lead to a decided improvement of our average pulmonary development. And the collar should not be either a portion of the shirt or a separate article, but a part of the outer garment, which garment should be loose, with short, roomy sleeves, and might be gathered at the waist to support the trousers by means of buttons. The objection to a belt for holding up the trousers is that it is worn too high, above the crests of the ilia, where it necessarily compresses the abdomen more than it would if it were worn in the natural furrow between the iliac crests and the femoral trochanters. This, of course, would make the top of the trousers too low for appearances, but it might readily be concealed by the short skirt of the tunic buttoned all the way down. The trousers, which should be ample, without any attempt at a close fit, might well be decidedly shorter than they are now worn, and gathered a few inches above the ankle by means of a strap and buckle. Our ingenious tailors, we are persuaded, could readily devise "along these lines" a summer costume that would be at once comfortable, conducive to health, and of pleasing appearance.

THE X-RAY AS AN ANALGETIC.

As an offset to its occasional production of obstinate ulceration, we must credit the Röntgen ray with some therapeutical efficiency. Dr. Stembo, of Wilna (*Therapie der Gegenwart,* June; *Berliner klinische Wochenschrift,* July 30th), reports a number of cases of its satisfactory action in neuralgia. He employed it for from three to ten minutes at a time, and the greatest number of sittings required for a cure in any case that proved susceptible to its action was ten. The frequency of the exposures is not stated.

THE BROOKLYN TENEMENT HOUSE CENSUS.

The value of this census, undertaken by the board of health, must be vitiated, we should think, by the arbitrary definition of a tenement house as one occupied by three or more families, even if it is a costly and well-appointed building inhabited by well-to-do people, while, as the *Standard Union* says, "a rookery which shelters one or two families is not included in the tenement house category, and thus escapes the census."

A SCARCITY OF MILITARY SURGEONS IN AUSTRIA.

It seems that our navy is not the only organization that finds difficulty in keeping up its full complement of medical officers. In Austria, says the *Deutsche Medizinal-Zeitung* for August 9th, steps have had to be taken to remedy a deficiency of military surgeons.

THE STUDY OF TROPICAL DISEASES.

It is gratifying to note the growing disposition to facilitate the special study of tropical diseases. According to the *Deutsche Medizinal-Zeitung* for August 9th, an institute for the purpose is to be opened in Hamburg on the 1st of October.

ANOTHER DEATH FROM "HEADACHE TABLETS."

The *New York Times* for August 17th records the case of the death of a girl twelve years of age who died after taking six "headache tablets" in about nine hours, one every hour from 9 p. m. on Saturday to 1 a. m. on Sunday, and one again at 5.30 a. m. on Sunday. The druggist's clerk asserted that he had instructed a second tablet to be given after three or four hours, and another, if necessary, in about four hours.

At the autopsy Dr. Cline, pathologist to the Port Washington Hospital, said that he could find no immediate cause of death; while a medical practitioner testified that after careful investigation he had come to the conclusion that death was caused by poisoning. There is no necessity to comment on a case which, at the time of writing, is still *sub judice;* but we may remark that "headache remedies" claim altogether too many victims.

NEW PUPILLARY REFLEXES.

At a recent meeting of the Paris Society of Neurology (*Presse médicale,* August 7th) M. Piltz maintained that, in addition to the reflexes of accommodation, to light, and to representation (the cortical pupillary reflex of Haab), there were others, such as the following: 1. On forcible closure of the eyes, contraction of the pupils takes place, although before they were of medium size or dilated. 2. If, while the subject tries to close his eyes, the effort is opposed by holding the lids apart, contraction of the pupil results, and the eyeball is directed upward and outward. The first of these phenomena he has found in fifty-nine per cent. of general paralytics, associated with pupillary rigidity, and in thirty-two per cent. of catatonies, with the pupils dilated, but reacting normally to light. The second he has observed in seventy-five per cent. of general paralytics, forty-eight per cent. of catatonics, and forty-eight per cent. of healthy persons. Of seventy tabetics, forty-one per cent. showed the first phenomenon, and forty-three per cent. the second.

MUSIC AND PICTURES IN THERAPEUTICS.

Music as a therapeutic resource has occasionally from very remote times been experimented with by physicians. Its association with pleasing pictures has been tried by Dr. J. Leonard Corning, of New York (*Revue internationale d'électrothérapie,* 1899; *Presse médicale,* August 4th), who reports very soothing results in certain disordered mental states. He finds music most effective while the patient is asleep or about to fall asleep, harmony more effective than melody, and some of Wagner's compositions particularly excellent. The patient dons a hood so fashioned as to form a reverberator and goes to bed. Pleasing pictures are then thrown on to a screen at the foot of the bed, and music is turned on from an Edison phonograph.

ITEMS.

Infectious Diseases in New York.—We are indebted to the Sanitary Bureau of the Health Department for the following statement of cases and deaths reported for the two weeks ending August 18, 1900:

DISEASES.	Week end'g Aug. 11		Week end'g Aug. 18	
	Cases.	Deaths.	Cases.	Deaths.
Typhoid Fever	60	16	50	12
Scarlet Fever	48	3	47	2
Cerebro-spinal meningitis	0	9	0	6
Measles	55	5	51	6
Diphtheria	177	27	172	33
Laryngeal diptheria (croup)	0	2	3	0
Tuberculosis	166	161	181	154
Chicken-pox	3	0	5	0
Small-pox	1	1	1	0

Marine-Hospital Service Health Reports.—The following cases of small-pox, yellow fever, cholera, and plague were reported to the surgeon-general during the week ending August 17, 1900:

Small-pox—United States.

Wichita, Kansas	Aug. 4-11	1 case.	
New Orleans, Louisiana	Aug. 4-11	16 cases,	2 deaths.
Minneapolis, Minnesota	July 14—Aug. 4	22 "	
Winona, Minnesota	July 28—Aug. 4	2 "	
New York, New York	Aug. 4-11	1 case,	1 death.
Cleveland, Ohio	Aug. 4-11	1 "	
Portsmouth, Ohio	Aug. 4-11	4 cases.	
Salt Lake City, Utah	July 28—Aug. 11	11 cases,	2 deaths.

Small-pox—Foreign.

Antwerp, Belgium	July 21-28	2 "	
Rio de Janeiro, Brazil	July 22-29		7 deaths.
Liverpool, England	July 21-28	1 "	
London, England	July 21-28	11 cases.	
Frankfort-on-the-Main, Germany	July 14-21		2 deaths.
City of Mexico, Mexico	June 17—Aug. 5	52 cases,	51 deaths.
Vera Cruz, Mexico	July 28—Aug. 4		6 "
Rotterdam, Netherlands	July 21-28	1 case.	
Moscow, Russia	July 14-21	3 "	
Odessa, Russia	July 21-28	1 case,	1 death.
St. Petersburg, Russia	July 14-21	69 cases,	15 deaths.
Warsaw, Russia	July 14-21		4 "
Singapore, Straits Settlements	June 23-30		2 "
Geneva, Switzerland	July 7-14	1 case.	

Yellow Fever.

Rio de Janeiro, Brazil	June 22-29		4 deaths.
Barranquilla, Colombia	July 22-29	2 cases.	
Bocas del Toro, Colombia	July 26	2 "	
Panama, Colombia	July 30—Aug. 6	5 "	2 deaths.
Cienfuegos, Cuba	Aug. 14	1 American from Matanzas.	
Havana, Cuba	July 22-29		9 deaths.
Matanzas, Cuba	July 23-29	1 death; case reported July 5.	
Merida, Mexico	July 14-21	5 cases,	2 deaths.
Vera Cruz, Mexico	July 28—Aug. 4	19 "	6 "

Cholera.

Madras, India	June 23-29		1 death.
Yokohama, Japan	July 12	1 suspect.	

Plague.

Rio de Janeiro, Brazil	June 2-29	40 cases,	24 deaths.
Port Said, Egypt	Apr. 20—July 13	92 "	38 "
Osaka, Japan	July 5-16	1 case.	
Shidzuoka Ken, Japan	July 5-16	1 "	
Manila, Philippines	June 23—July 7	7 cases.	5 deaths.
Beirut, Syria	July 14-21	4 "	
Trebizonde, Turkey	June 27	1 suspected case.	

Army Intelligence.—*Official List of Changes in the Stations and Duties of Officers serving in the Medical Department, United States Army, from August 18 to August 25, 1900:*

BARTLETT, C. J., Acting Assistant Surgeon, United States Army, will proceed to the Presidio of San Francisco for duty with battalion, Twenty-third Infantry, *en route* to the Department of the Colorado and of the Missouri. Upon his arrival at Cheyenne, Wisconsin, Surgeon Bartlett will return to San Francisco for duty.

Ducker, Orlando, Major and Surgeon, United States Volunteers, will report to the Surgeon-General of the Army for instructions upon the expiration of his present leave.

Hayward, Edwin P., Acting Assistant Surgeon, United States Army, will report for duty with the Ninth Cavalry upon its arrival in San Francisco, *en route* for foreign service.

Moseley, Edward B., Major and Surgeon, United States Army, will report to the commanding general, Department of Southern Luzon, for duty as chief surgeon of that department, relieving Powell, Junius L., Major and Surgeon, United States Army, who will report to the chief surgeon of the division for instructions.

Naval Intelligence.—*Official List of Changes in the Medical Corps of the United States Navy for the Week ending August 18, 1900:*

Elmer, M. K., Assistant Surgeon. Commissioned assistant surgeon from July 18, 1900.

Lowndes, C. H. T., Surgeon. Commissioned surgeon from June 7, 1900.

Garton, W. M., Assistant Surgeon. Detached from the *New York* and ordered to the *Massachusetts* immediately for temporary duty, by the commander-in-chief of the North Atlantic Station.

Costigan, C. D., Passed Assistant Surgeon, Lung, G. A., Passed Assistant Surgeon, and Kennedy, J. T., Passed Assistant Surgeon. Ordered to the *Monadnock* for additional duty with the regiment of marines.

Davis, E., Assistant Surgeon. Ordered to the *Yorktown.*

Alfred, A. R., Passed Assistant Surgeon. Ordered to the *Castine.*

Marine-Hospital Service.—*Official List of Changes of Stations and Duties of Commissioned and Non-Commissioned Officers of the United States Marine-Hospital Service for the Seven Days Ending August 16, 1900:*

White, J. H., Surgeon. To proceed to Jacksonville and Camp Perry, Florida, as inspector.

Fricks, L. D., Assistant Surgeon. Detailed by the chief quarantine officer of the Philippine Islands as quarantine officer at Iloilo, Philippine Islands. Confirmed by Department approval August 15, 1900.

Thornbury, F. J., Assistant Surgeon. Granted leave of absence for three days.

Stansfield, H. A., Assistant Surgeon. Detailed by the chief quarantine officer of the Philippine Islands as quarantine officer at Cebu, Philippine Islands. Confirmed by Department approval August 15, 1900.

McIsaac, F. C., Acting Asistant Surgeon. Granted leave of absence for fourteen days from August 3d.

Holsendorf, B. E., Hospital Steward. Letter of July 20, 1900, granting Hospital Steward Holsendorf leave of absence for thirty days amended so that said leave shall be for fifteen days only.

Warhanik, C. A., Hospital Steward. Relieved from duty at Stapleton, N. Y., and directed to proceed to Vineyard Haven, Mass., and report to the medical officer in command for duty and assignment to quarters.

Diphtheria in Valley City, N. D.—An epidemic of diphtheria is reported in and around Valley City, N. D.

A New Hospital at Saratoga.—A new hospital at St. Christina's Home, Saratoga, N. Y., was formally opened with a reception on August 13th.

The Benedictine Sisters Purchase a Hospital.—The lumbermen's hospital at Brainerd, Minn., has been sold, together with twenty acres of land, to the Benedictine Sisters of Duluth for the sum of nine thousand dollars.

Small-pox in Minnesota.—Several cases of small-pox of a mild type have occurred in Winona, Minn., though up to recent date no deaths had been reported.

Hospital Buildings at Salisbury, Md.—The plans and specifications for a hospital at Salisbury, Md., have been completed by the architect and bids for erecting the hospital have been invited.

To Establish a Hospital in Bessemer, Ala.—A meeting of citizens was held recently in Bessemer, Ala., and preliminary plans were laid to raise funds for the establishment of a city hospital in the town.

The Charles River Polluted.—The health authorities of Watertown and of Newtown, Mass., are making an investigation as to the condition of the Charles River, which is very low and in a decidedly unsanitary condition.

A United States Hospital in Japan.—The United States Minister to Japan has informed the Department of State that the Government of Japan has given permission for the United States to erect a government hospital wherever this Government may choose to do so in Japan.

Looking After the Bordentown Water Supply.—Notices have been sent out by the New Jersey Board of Health to prevent the emptying of sewage into Crosswick's Creek and its tributaries as this creek empties into the Delaware River just above the intake of the Bordentown waterworks.

An Emergency Hospital for the Chicago Stockyards.—Owing to the long distance, some five miles, to the nearest hospital from the Chicago stockyards, a movement is on foot to provide an emergency hospital in immediate proximity to the packing houses and railroads where accidents are of daily occurrence.

Filters for Philadelphia Public Schools.—The contractors are ready to begin the installation of filters in the public schools, in accordance with the specifications of the Bureau of Public Health. Thirty-five thousand dollars have already been appropriated for the purpose and an additional appropriation is soon to be asked for.

Thirteen Hundred Dollars for Tuberculous Cows.—For the four years from 1896 to 1899 the Brooklyn Board of Health has audited claims amounting to $1,369.50 for tuberculous cows destroyed by order of the board. During that time sixty-one cows were destroyed with an average value of about twenty-one dollars and a half each.

Staff Changes at the Philadelphia Hospital.—Dr. J. C. Seltzer, laryngologist, and Dr. H. W. Cattel, pathologist, of the Philadelphia Hospital, have resigned and their resignations have been accepted with regret. The vacancies will be filled by selection of candidates from the eligible list of the Civil Service Board.

Yellow Fever on the West Coast of Africa.—The United States Consul at Teneriffe, Canary Islands, has reported to the department of state that the French coast of west Africa, and the British also as far south as Bathurst, has been declared under quarantine on account of the prevalence of yellow fever of a most malignant type.

Anti-Vaccinationists' Mass Meeting.—The anti-vaccinationists of Rockland, Mass., have organized to make an active fight against compulsory vaccination. A mass meeting was recently held and the local School Board and the Board of Health petitioned to allow children to enter the public schools without being vaccinated. The petition was refused and it is reported that a determined effort will be made to secure the repeal of the compulsory vaccination law.

Keuka Lake Medical Association Meets.—The second annual meeting of the Keuka Lake Medical and Surgical Association took place at the Grove Springs House, Keuka Lake., N. Y., on August 14th and 15th and the following officers were elected for the ensuing year: President, Dr. Henry Flood, Elmira; vice-president, Dr. W. Austin Macy, Willard State Hospital; secretary and treasurer, Dr. W. W. Smith, Avoca.

Philadelphia Paving Companies Abate a Nuisance.—The Alcatraz Paving Company, whose works are located at Thirty-seventh and Wharton streets, Philadelphia, have complied with the order of the Bureau of Public Health to abate the nuisance caused by the clouds of dust emanating from their works. The firm of Richardson & Ross has shut down their works while the changes required to conform to the order of the Bureau of Public Health are being made. The cases have attracted a good deal of attention locally.

Sanitation in Coney Island.—Assistant Sanitary Superintendent Robert A. Black, after giving the proprietors ample warning, posted notices ordering forty-one places in Coney Island to be vacated because they were not connected with the sewerage system as required by law. The posting of the orders resulted in prompt action in almost every case, and as a result there are only about a dozen houses which are in an unsanitary condition on the island and these have been shut up by the health officers.

The First International Congress of Professional Medicine and Medical Ethics.—The first International Congress of Professional Medicine and Medical Ethics was convened in the palace of social economics at the Paris Exposition, on July 23, by Dr. Théophile Roussel, honorary president of the congress. Dr. Benedikt, of Vienna, and Dr. Vandam, of Brussels, occupied the seats of honor on either side of Dr. Roussel. Dr. Lereboullet, president of the congress, having been introduced by the honorary president, delivered an interesting though brief address. Next followed a report by Dr. Jules Glover, secretary general of the congress, in which the history of the organization of the movement which preceded the issuance of the call for the congress was given in detail. The inaugural session terminated by the nomination of the honorary presidents from among the delegates in attendance, Dr. Wakely being selected to represent England and Dr. Richardson to represent the United States.

The first general session of the congress was convened at 9 o'clock on Tuesday morning, July 24th, in the large amphitheatre of the School of Medicine. The session opened with the discussion of a report by Dr. Cuylits, of Brussels, on the relations of physicians with lodges, etc., in which the lodges or societies pay the physician's fees.

On Tuesday afternoon the meetings were held in sections, the first section devoting its time to a discussion of the abuse of free hospitals and dispensaries. The second section, which met simultaneously with the first, continued the discussion begun in the morning upon lodge and society physicians.

The third day's sessions were opened on Wednesday, July 25th, with a report by Dr. Descouts on the illegal practice of medicine. M. Jendrassik, of Buda Pest, presented a paper on the organization of the General Medical Association of Hungary. Other papers presented were: Consultations in the Dispensaries of Paris, by M. Dorison; The Abuse of the Medico-Pharmaceutical Reading Notice (Réclame), by Dr. Richard Lesay.

The members of the congress were tendered a reception on Tuesday evening at 5 o'clock by the *Syndicate des medicins de la Seine*, and on Wednesday evening M. Lereboullet, president of the congress, opened his salon to the members, many of whom availed themselves of the invitation. The congress proved a success both socially and from a scientific point of view.

Use of Pier for Dumping Prohibited.—President Murphy, of the Health Board of New York City, has issued an order forbidding the City Street Cleaning Department to use the pier at the foot of East Fifty-third street as a street-cleaning dump. The section is densely populated and the loading of the scows there constitutes a nuisance which has been several times complained of. In response to a petition, President Murphy requested the Street Cleaning Department to relieve the neighborhood, as much as possible, of the nuisance. After the lapse of a week, however, the nuisance was as bad as ever and the order to the Street Cleaning Department was therefore issued.

A Hospital for Contagious Diseases in Orange.—A movement is on foot to provide an isolation hospital for contagious diseases in Orange, N. J. E. K. Summerwell, of East Orange, who is interested in the project, is reported as being quite sanguine of its success, as considerable sums have already been pledged.

The Lehigh Valley Medical Association met at the Neversink Mountain Hotel, Reading, Pa., on August 16th. In addition to the presidential address by the retiring president, Dr. Israel Cleaver, papers were read by Dr. John Milton Duff, of Philadelphia, on Modern Obstetrics, and by Dr. P. A. Harrison, of Paterson, N. J., on Certain Pathological Conditions of the Falloppian Tubes of Interest to the General Practitioner. The following officers were elected for the ensuing year: President, A. A. Seem, of Bangor; vice-presidents, C. P. Knapp, of Wyoming; W. H. Hartsell, Lehigh; A. H. Halberstladt, Pottsville; O. H. Sproul, Flemington, N. J.; secretary, Charles McIntire, Easton; assistant secretary, W. P. Walker, South Bethlehem; treasurer, Abraham Stout, Bethlehem.

Typhoid Fever in Chester, Pa.—A number of deaths from typhoid fever have been reported in the western portion of Chester, Pa., and in Trainer, a town a few miles below that city.

Legacy for Will's Eye Hospital.—By the will of the late Geo. W. Gross, of Lower Merion, Pa., all his estate, after the payment of a few small bequests, will revert to the Will's Eye Hospital, of Philadelphia.

Typhoid Fever in St. Louis.—Up to August 13th there had been 282 cases of typhoid fever, with 54 deaths, since March 1st of this year, against 119 cases and 27 deaths for the same period last year. The increase in the death rate is exactly double, while the number of cases is more than double the record of last year. Some attribute the condition to disease germs in the water, due to the influx into the Mississippi River of Chicago sewage.

Contagious Diseases in Pittsburg.—Seventeen cases of typhoid fever were reported to the Pittsburg Bureau of Health on August 13th, one each in the Thirty-fourth, Thirty-sixth, Thirty-third, Fifth, Seventeenth, First, Nineteenth, Fifteenth, Eighteenth and Fourteenth wards; two each in the Twenty-third and Thirty-first wards, and three in the Twenty-first. One case of diphtheria in the Twenty-third ward and three cases of scarlet fever in the Third were reported.

A Sixty Thousand Dollar Addition to the Milwaukee Hospital.—The County Board has made an appropriation of sixty thousand dollars for the erection of a new county hospital at Milwaukee, Wis. The old hospital building will also be remodeled.

Disposal of Night Soil in Baltimore County.—Persons removing night soil in the city of Baltimore are required to obtain a permit from the city commissioner of health to haul it through the streets to the city scows, where a fee is paid for dumping it. Instead of doing this, however, many of those employed in this work haul the soil to farms adjacent to the city, where they sell it. Dr. John S. Fulton, of the Maryland Board of Health, is making a vigorous effort to stop this practice, on the ground that it is becoming so general as to threaten the pollution of streams from which a portion of the water supply of Baltimore is drawn. The city, county and State officials are all working in harmony in the matter.

Trouble in the New Haven Hospital.—A nurse in the New Haven Hospital was engaged to be married to a young army surgeon and upon receipt of the news of his death in the Philippines was prostrated and went to her home in Maine. When going she was accompanied by a surgeon, a member of the house staff of the hospital, who had been an intimate friend of the deceased surgeon. It being against the rules of the institution for a nurse to appear in public in company with a member of the house staff, the young surgeon was dismissed. When this fact became known another member of the house staff resigned out of sympathy with the surgeon who had been dismissed. The resignation was not accepted, however, and the surgeon was suspended pending final action by the directors at the next regular quarterly meeting. The local public seems inclined to condemn the action of the board as too severe.

Trolley Kills a Physician.—Dr. Franklin Booth, who was formerly connected with the Newtown Board of Health and at the time of the accident was a member of the Queens County (N. Y.) Health Board, was run over by a trolley car in Elmhurst, a suburb of Long Island City, on August 12th and subsequently died from the injuries received. The trolley car passed over both his legs, but the physician retained the utmost presence of mind, telling the bystanders how to improvise a tourniquet so as to prevent his bleeding to death. When the ambulance surgeon arrived the latter proposed immediate amputation of one of the legs, which the patient agreed to and to which he submitted without a murmur. On arriving at the hospital it was found necessary to remove the other leg. The patient stood the operation remarkably well and the surgeon in charge had every hope of his ultimate recovery. The shock, however, proved too great for a man of his years—he was aged sixty-three—to stand and he died a few days after the accident.

City Physician of Lynn.—Dr. Geo. C. Carr has been elected city physician for the westerly district of Lynn, Mass.

Dr. T. Hunt Stucky has been appointed medical director of the Triennial Conclave of Knights Templar which will convene in Louisville next year. Over 100,000 visitors are expected to be in attendance.

Trenton Infirmary Closed.—The Trenton (N. J.) Eye and Ear Infirmary, which was founded some fifteen years ago by Dr. McIlwaine, has been closed. The institution has always been supported by the public-spirited of the city, but it has come so little before the public eye that contributions have been gradually falling off, and from lack of support the place had to be closed.

Births, Marriages, and Deaths.

Married.

Babcock—Young. — In Lafayette, Louisiana, on Wednesday, August 15th, Dr. George C. Babcock and Mrs. M. P. Young.

Canter—Brown.—In Ashland, Virginia, on Tuesday, August 7th, Dr. Hall Canter and Miss Frances C. Brown.

Jones—Cadwell. — In Watertown, N. Y., on Wednesday, August 22d, Dr. John Grafton Jones, of Buffalo, and Miss Lois Cadwell.

McIntyre—Codman.—In Boston, on Saturday, August 11th, Mr. John Davidson McIntyre and Miss Florence Louise Codman, daughter of Dr. John Thomas Codman.

Stone—Gilroy.—In Bergen, N. Y., on Tuesday, August 14th, Dr. E. C. Stone, of Galesburg, Illinois, and Mrs. H. M. Gilroy.

Died.

Booth.—In Brooklyn, on Sunday, August 19th, Dr. Franklin Booth, of Newtown, Long Island, in the sixtieth year of his age.

Chestnut.—In Dutch Harbor, Alaska, on Sunday, August 5th, Dr. J. H. W. Chestnut, of Seattle, Washington.

Evans.—In Rome, N. Y., on Thursday, August 16th, Dr. Edwin Evans in the fifty-sixth year of his age.

Laverty.—In Harrisburg, Pennsylvania, on Wednesday, August 15th, Dr. Theodore C. Laverty.

Musgrove.—In Hudson, Wisconsin, on Wednesday, August 8th, Dr. W. H. Musgrove, of Grafton, North Dakota.

Richardson.—In North Newport, New Hampshire, on Saturday, August 11th, Dr. Leonard E. Richardson, of

Hartford, Connecticut, in the sixty-seventh year of his age.

Pith of Current Literature.

Bulletin of the Johns Hopkins Hospital, July and August, 1900.

On the Present Status of Therapy and its Future. By Lewellys F. Barker, M. B.—In this Address on Medicine, delivered before the Ontario Medical Association at Toronto on June 6th, the author reviews the history of medical progress in general, and glances at the progress made in those specialized subdivisions of labor and research which are the inevitable result of the ever-increasing boundaries and complexity of the subject.

The author feels that the time has come for a more hopeful outlook for therapy in internal medicine. More thought among the best men might with advantage be given to it. Leyden's words are quoted: "The task of therapy is to help the patient as far as possible with the means at its disposal at the time; it dare not postpone the treatment to future discoveries. Specific therapy, long looked upon as that alone which is safe and worth striving for, is deprived of its absolute dominion; instead of 'curing diseases,' our task is altered to 'making patients well.' "

The author thinks that one of the causes of therapeutic pessimism among the better men in the profession lies in the fact that when therapeutics is spoken of, most men call pharmacotherapy disproportionately into mind. It is because they are insufficiently known and appreciated, that dietotherapy, climatotherapy, hydrotherapy, kinesiotherapy, electrotherapy and psychotherapy are not ranked with pharmacotherapy; and yet, in the majority of cases with which physicians deal, one or more of these is of far greater importance than treatment with drugs. Psychotherapy especially has a great future. Not until physicians become better psychologists and learn better how to apply psychic methods in the treatment of disease can we hope for the disappearance of such psychic epidemics as that represented by Christian Science. In the near future psychopathogenic mechanisms should be carefully studied in order that psychoprophylaxis can have a wider field.

What the future of pharmacotherapy will be who will be rash enough to judge? That it will be great seems certain. That it cannot soon be great seems sure. Synthetic chemistry has supplied us with a host of new bodies for experimentation. Only a very small percentage of these have thus far been found to be of value. Antipyretics, analgetics and hypnotics especially are being multiplied. They have to be slowly tested on animals, then on healthy human beings and last of all on human beings in diseased conditions before their actual value can be ascertained. The effects of drugs like acetone-chloroform and urethane astonish us, however, and whet the appetite for further discovery.

No single system of therapy is likely soon again to hold general sway. *Contraria contrariis* and *similia similibus* have ceased among scientifically cultivated men to be a universal guide of therapeutic action. The biologically fundamental principle of Pflüger and Arndt, namely, that "minute stimuli excite to vital activity, stimuli of medium strength favor it, strong stimuli inhibit it, strongest abolish it, it being, however, always an individual matter whether a given stimulus will prove to be feeble or one of medium strength or maximal," associated with the Ritter-Valli law that "diseased organs are in a state of heightened excitability," has been made by Oscar Schulz the basis of his "organ-therapy." Very valuable as the concept appears to be, medical men, with a caution born of experience, will be loth to accept it or any other generalization as an all-sufficient maxim.

The revival of organotherapy, or opotherapy as the French designate it, is a marked feature of present treatment. One of the oldest methods, having been employed long before the Christian Era, opotherapy began with an attempt to produce an aphrodisiac effect by administering the genital organs of the respective sex to the individual who desired stimulation. It is rather curious that the present revival was inaugurated by Brown-Séquard, the composition of whose elixir vitæ you know. Organotherapy has, however, this time a rational basis in the conception of an internal secretion, deduced by Brown-Séquard from the studies of Claude Bernard. The production of experimental cachexia thyreopriva, and the bringing of the proof that the transplanted thyreoid would save an animal from the disease, suggested the possibility of the use of thyreoid substance in myxœdema and cretinism with the marvelous results which most practitioners have by this time been permitted to observe. The chemical analyses of Baumann showed that an iodine compound in the normal thyreoid is an important element in the gland. This *"Parenchymsaftherapie,"* as Virchow designates it, is obviously a substitution-therapy—a restoration to the diseased body of chemical substances, the removal of which from the normal body gives rise to symptoms of disease. It is in atrophic conditions of the gland that the therapy is valuable. Myxœdema and cretinism are diseases which correspond to the "altruistic atrophy" of Hansemann, while Basedow's disease is thought by many to be an example of "altruistic hypertrophy." Had the principles underlying thyreoidtherapy been earlier recognized we should have expected benefit from the administration of thyreoid extract in hypertrophic conditions of the gland.

The French are busy testing the effects of thyreoidtherapy on the healing of fractured bones. The experimentation is still in progress and it is too early yet to say much regarding it. Ponfick's remarkable case, which makes it appear possible that the hypophysis and the thyreoid may be compensatory glands, will doubtless stimulate to further study.

With the advent of a successful thyreoid therapy, the notoriety hunters soon introduced organic extracts of the most various sorts. Cardin, cerebrin, hepatin were launched and vaunted. Examination of the manufacture of a certain prostate extract showed that it was being prepared from female animals! Such empirical attempts were worse than useless. They represent a return to the primitive.

With certain of the organs we are, however, provided with a rational basis for experimentation. Mering and Minkowski proved the disastrous effects upon the animal of extirpation of the pancreas. The diabetes which followed extirpation could be prevented by transplantation of pieces of pancreas. Yet for reasons not satisfactorily understood pancreas therapy has not been made practically useful.

Again, the effects of removal of the adrenals have been carefully studied. Addison's disease is believed to be largely the result of loss of adrenal substance. Unfortunately, the administration of adrenal extract, while it may alleviate some of the symptoms of Addison's disease, has no effect on the others. The attention paid to the adrenal of late by physiological chemists has, however, been most fruitful. The studies concerning the blood-pressure raising constituents are extremely valuable. The active substance has been isolated and its chemical nature studied. The work of Abel and others upon epinephrin is furnishing most interesting data for future use.

Rhinologists are using adrenal extract as a vaso-constrictor in the nose. Stoelzner details a large series of cases of rickets, markedly benefited by adrenal extract. He finds that the cranio-tabes, the sweats, the delayed coming of the teeth, the irritability of the vaso-motor system, the general restlessness and excitability, the curious smell of the urine, are all very markedly improved by the treatment. The softening of the thorax is frequently benefited. The spasm of the glottis and other symptoms of tetany, however, generally appear to remain uninfluenced by the adrenal extract. The improvement can frequently be made out during the first week of treatment. An amelioration of the symptoms goes on rapidly for a few weeks, later on more slowly.

The spleen and bone-marrow extracts which have been introduced increase the white and red corpuscles of the blood, possibly owing to the nuclein which they contain. That hypophysis extract is of no value in acromegaly would not be surprising, if acromegaly should turn out to be, as some investigators believe, rather an instance of "altruistic hypertrophy" in the sense of Hansemann than one of "altruistic atrophy."

One of the most recent advances is the use of ovarian substance in cases (1) where the ovaries have been removed at operation, and (2) at the climacteric to relieve the phenomena characteristic of that period. The substance is given in Germany in the form of Landau's oophorin tablets. Loewy and Richter report that this ovarian substance has a remarkable capacity for increasing the oxygenating power of the body-cells in cases in which the ovaries have been removed. Their protocols are very convincing. Whether or not the therapy will be useful in preventing the obesity so characteristic of so many such cases we must wait to see, but the Germans feel confident that it will.

Serum therapy is next considered. Aside from the serum against diphtheria, however, the author considers that there is as yet little of practical value to acknowledge from this side. Of the modus operandi of sera the author says:

The antidiphtheric serum is an antitoxic serum. That introduced against tetanus is also an antitoxic serum. To be ranked with these two is probably also Calmette's serum against snake poison. Tetanus serum is only preventive, not curative, possibly owing to the fact that the antitoxine injected subcutaneously or into the blood cannot reach the toxine when once the latter has combined with the protoplasm of the nerve cells. Even intracerebral introduction of the antitoxine is not fully satisfactory for obvious reasons. All the other sera which have been introduced, namely, those against cholera, the streptococcus, pneumococcus, the bacilli of plague, anthrax and typhoid fever are not antitoxic sera but antibacterial sera. They do not neutralize the poison which the bacteria produce but have the power of killing the bacteria in the body of the patient and of dissolving them up. Not a single one of these sera is as yet practically useful as a therapeutic measure.

Ehrlich's studies make it probable that with these antibacterial sera at least two bodies are necessary for successful action: (1) the *inter-body* or *immunizing body*, and (2) the *end-body* or *complement* (formerly called *addiment* by Ehrlich). The latter is present in normal serum and is the true dissolving body, but it can act only when it is bound to the bacterial cell by means of the immunizing body. The antibacterial sera are rich in the immunizing body. It may be possible that they are insufficient owing to there not being enough of the end-body present. Wassermann is now making experiments in this connection. He hopes that by increasing the amount of end-body or complement available that the antibacterial sera may be rendered valuable in the treatment of disease in human beings.

A Comparative Study of Some Members of a Pathogenic Group of Bacilli of the Hog Cholera or Bacillus Enteritidis (Gaertner) Type, Intermediate between the Typhoid and Colon Groups. With the Report of a Case Resembling Typhoid Fever in which there Occurred a Post-Febrile Osteomyelitis Due to Such an Intermediate Bacillus. By Dr. Harvey Cushing.—A consideration of the cultural properties of the organism, *Bacillus O*, demonstrates its close relationship to the definite and hardly recognized group of bacilli of the hog cholera or *Bacillus enteritidis* of Gärtner type, which bacilli, having some characteristics peculiar to both the typhoid and colon groups, may be said to occupy a biological position intermediate to them. Whether the cultural characteristics of these organisms are but temporarily acquired, and whether they should merely be regarded as having a transient intermediary existence, may be a question of dispute; but, nevertheless, a certain distinct isolarity for these particular forms is demonstrable, and the definiteness of the serum reactions, pathogenicity, and perpetuation of cultural features justifies their installment in a separate group (Cf. Flexner, Simon. Microorganisms. Twentieth Century Practice of Medicine, Vol. XVIII, p. 655, 1900).

The elaborate tables of Germano and Maurea (Germano and Maurea: Vergleichende Untersuchungen über Typhusbacillen und ähnliche Bakterien. Ziegler's Beiträge, Bd. XII, S. 495, 1893) of Tavel and Lanz, of Gilbert, Booker, Smith and others show what a variety of closely related bacillary forms of this family may be isolated from one source or another. In a recent study of the intestinal flora of dogs, Dr. Livingood and the writer (Experimental and Surgical Notes upon the Bacteriology of the Upper Portion of the Intestinal Canal, etc. Contributions to the Science of Medicine, dedicated by his pupils to William H. Welch, p. 571, 1900) isolated about fifteen varieties of bacilli, chiefly of the colon and paracolon type, though several more intermediate forms were found, and on not a few occasions organisms indistinguishable from *Bacillus typhosus*. It can thus be readily understood, if typical or allied forms of these various groups occupy at one time or another the alimentary tract, that during the course of fevers associated with intestinal lesions they may easily find their way into the portal circulation and cause an infection superimposed on that of the original disease. It has been shown, however, that the colon bacillus, which is a permanent inhabitant of the lower intestine where these lesions are usually situated, and consequently the most frequent secondary invader, is rarely found in infections beyond the confines of the abdominal cavity. Gwyn's *paracolon* and *Bacillus O*, on the contrary, were isolated, one from the peripheral circulation and the other from a surface lesion, and consequently it is unlikely that they were secondary invaders. Furthermore, the patient's blood reacted strongly to these organisms and not to *Bacillus typhosus*, and it is not improbable that they were the specific cause of the disease, which resembled clinically typhoid fever. For similar reasons the recovery of *Bacillus icteroides* from the peripheral circulation of patients suffering with yellow fever would favor Sanarelli's view that it is the cause of a specific fever and not a secondary invader, as many are inclined to believe.

The individuals of this group of organisms spoken of as an intermediate group, present a wide range of pathogenic activity toward man and animals, and though they can be distinguished by their response toward various specific sera, they are practically identical in their cultural relations.

Charles Frederick Wiesenthal, Medicinæ Practicus, the Father of the Medical Profession of Baltimore. By Dr. Eugene F. Cordell.—An interesting biographical and historical article.

I. Primary Carcinoma of the Appendix Vermiformis; II. Carcinoma of the Appendix Secondary to Carcinoma of the Uterus. By Dr. Elizabeth Hurdon.—Two cases, the description of which may be gathered from the title, are recorded. Their chief interest lies in the fact that new growths of the vermiform appendix are very unusual, and have hitherto received very little attention. The literature only shows ten cases of cancer originating in the appendix.

Carcinomata occurring in the vermiform appendix are of the two varieties commonly observed in growths affecting the alimentary canal, namely, colloid carcinoma and adenocarcinoma with glands resembling proliferating glands of Lieberkühn. An unusually large proportion of the cases occurring in the appendix, if we accept the diagnosis made from the gross specimen, are of the colloid type.

Secondary carcinoma of the appendix is of interest chiefly from the scientific standpoint, since clinically, as it gives rise to no symptoms or to none that are characteristic, its presence is masked by the primary tumor. Moreover, if detected its removal does little to stay the progress of the disease. Metastatic carcinomatous growths in the appendix appear to be almost as rare as the primary cases, most of the secondary growths consisting of direct extensions from the cœcum. The most frequent seat of the original tumor appears to be in the ovaries, the stomach or other portion of the digestive tract, or the uterus. The growth in the appendix corresponds in structure to the original tumor.

The case reported by the author was discovered at operation for removal of a large ovarian tumor, and at the same time it was found that the pyloric end of the stomach was also the seat of a new growth.

A Case of Transient Spastic Convergent Strabismus. By Dr. Samuel Theobald.—Spastic convergent strabismus, or strabismus from tonic spasm of the internal recti, must be sharply distinguished from ordinary concomitant convergent squint and from squint due to paralysis of the abducens. It is one of the well-recognized ocular manifestations of hysteria, but apart from this, it would seem, deserves to be regarded as a rare anomaly to which text-books give scant attention.

After describing his case, the author says that the squint in this case was a purely spastic one, due, doubtless, to an irritation (of influenzal origin) of the innervation centre which controls the associated action of the internal recti muscles. This is, in his judgment, not open to question. Had it been a concomitant squint, precipitated by the attack of influenza, as he at first supposed, it might, indeed, have disappeared under the influence of the atropine and with the improvement in the patient's general condition; but, under such circumstances, a normal muscle balance would certainly not have been re-established in the space of a few days, as actually happened. On the contrary, a marked, and probably persistent, esophoria would certainly have been encountered.

As to abductor paresis, there were no signs whatever pointing in this direction; but, apart from this fact, the rapid return of the lateral muscles to a condition of practical orthophoria, was as little consistent with this view of the case as with the view that the squint was a concomitant one.

The American Journal of the Medical Sciences, August, 1900.

Clinical Notes of Cases of Pernicious Anæmia. By Dr. Frederick P. Henry.—Five cases form the subject of these notes, and all of them presented the phenomena of extreme reduction in the number of red blood corpuscles, and a relatively high percentage of hæmoglobin. These characteristics are the generally accepted concomitants of pernicious anæmia, but Dr. Henry lays the greatest emphasis upon the reduction in the number of the red blood corpuscles, for, in his experience, there has been no disease, except pernicious anæmia, in which the number of red corpuscles is at any time reduced below twenty per cent. The importance of this is manifest, as it affords a distinction between pernicious anæmia and latent gastric cancer—a disease with which the former is most likely to be confounded.

The relatively high percentage of hæmoglobin found depends upon: 1. Increased average size of the corpuscles; 2. In some cases on the presence of an unusual number of highly colored and minute microcytes; and 3. Upon the time at which the examination is made. The icteric hue of the skin and the deeper hue of the urine observed at periods of exacerbation are caused by a dissolution of the red blood corpuscles, and consequently the hæmoglobin estimated at one of these periods will be higher than previously or subsequently, since the more highly colored plasma contributes to its elevation. The author once again reiterates his theory that in pernicious anæmia the red blood corpuscles show marked signs of reversion to the type of blood which is normal in the cold-blooded animals, and his arguments are convincing.

Dr. C. S. Engel's theory that pernicious anæmia is an example of reversion to the fœtal mode of blood development is also discussed and used to support Dr. Henry's theory.

Pernicious Anæmia: A Study of One Hundred and Ten Cases. By Dr. Richard C. Cabot.—Out of the whole series of cases there has not been one genuine recovery. Of the seventy-nine cases, regarding which the author has complete data, including the date of death,

30 lived less than 1 year from the earliest symptoms;
20 lived less than 2 years from the earliest symptoms;
10 lived from 2 to 3 years;
7 lived from 3 to 4 years;
3 lived from 4 to 5 years.

Fowler's solution and bone marrow, either alone or combined, were used, as also were inhalations of oxygen in three cases: the author, however, failed to find that any of these therapeutic agents affected the course of the disease. Laxatives or purgatives he has used lately but, as yet, he is not prepared to give any report as to the effects of such measures.

Experimental Research Showing that Uric Acid Secretion is not Regularly Diminished in the Period

Preceding Epileptic Seizures. By Dr. James J. Putnam and Dr. Franz Pfaff.

Minor Forms of Cardiac Dilatation. By Dr. Beverly Robinson.

Endothelioma of the Skin Developing in the Scar-tissue of Lupus Vulgaris; Angio-sarcoma of the Skin. By Dr. J. A. Fordyce.

A Comparative Study of Digitalis and its Derivatives. By Dr. John P. Arnold and Dr. Horatio C. Wood, Jr.

Multilocular Cystoma of the Pancreas. By Dr. Reginald H. Fitz.

A Critical Summary of the Literature on the Inoculability of Carcinoma. By Dr. Joseph Sailer.—An excellent article which should be read in its entirety to be appreciated.

Brooklyn Medical Journal, July, 1900.

Recurrent Oculo-motor Paralysis. By Dr. L. A. W. Alleman.

Reports of Cases of Appendicitis. By Dr. Arthur H. Bogart.—The author reports six cases, all but one of which did well. That one died of complete urinary suppression three days after operation. We are told that the patient did not take the anæsthetic (presumably ether) well, and that nausea and vomiting persisted.

Adenoids: Remarks on the Pathology and Ætiology. By Dr. Jonathan Wright.—The author points out that whether operated upon or not, the retrogression of the lymphoid material, while frequently leaving the surface smooth, usually leaves behind in the stroma a superabundance of fibrous tissue, and possibly some epithelial metaplasia of the surface, which are liable to interfere with the proper functions of the vascular and glandular organs of the pharynx—resulting in post-nasal catarrh. Another form of cicatricial sequela of adenoids is Tornwaldt's disease, resulting from the inflammatory agglutination of the surfaces of the lymphoid folds of the pharyngeal tonsil one to the other, leaving closed cavities erroneously called cysts. Among ætiological factors the author enumerates in healthy appearing children, "too much candy on the stomach, too much clothing on the back, or too much coddling in steam-heated houses." The author considers erroneous the opinion that the high buccal arch is usually, if not always, the result of post-nasal obstruction.

Adenoids: Symptomatology and Effects on the General System. By Dr. H. Arrowsmith.

Effects of Adenoids on the Ear. By Dr. William C. Braislin. The author summarizes his paper as follows: I. Ear diseases almost invariably accompany adenoid growths. II. The first symptom of the presence of adenoids is frequently pain in or a discharge from the ear, or impairment of hearing. III. The tendency of the ear diseases complicating adenoids to become chronic, indicates a continuing ætiological factor in their production. The subsequent improvement in the ear symptoms often taking place between the age of puberty and adult life follows the increase in size of the pharyngeal cavity and the partial or complete atrophy of the pharyngeal lymphoid tissue. The tendency to suffer from ear diseases still remains. IV. A symptom of impaired hearing due to adenoids is frequently a deficiency in mental development. Mental deficiency is often directly traceable to adenoids. V. Mastoiditis appears among the complications of middle ear suppuration with considerable frequency, these in turn being traceable to adenoids. It is probable that cerebral abscess and other complications of mastoiditis may have a similar starting point.

The Treatment of Lymphoid Growths in the Vault of the Pharynx. By Dr. Thomas R. French.—The author considers the subject under four heads, viz.: 1. Antisepsis; 2. Anæsthesia; 3. Hæmorrhage; 4. The degree to which the growths should be removed, and concludes with three suggestions: 1. A mass of lymphoid tissue should not be left untouched simply because it is inconsiderable in amount. A very small growth is at times capable of doing much harm, especially to the auditory apparatus. If there is hypersecretion, or if symptoms referable to the ears are present, even the smallest growths require removal.

2. The patient should be kept under observation long enough to determine whether he readily acquires the habit of breathing with his mouth closed, and if not, an apparatus should be adjusted which will insure the closure of the mouth during sleep.

3. The habit which most children with lymphoid growths acquire of bolting their food to free the way for air, should be interdicted, for its continuance will, to a considerable degree, mar the brilliancy of the results which should be obtained by operation and by care in the after treatment.

Albany Medical Annals, July, 1900.

Modern Methods of Preparing and Preserving Materials Used in Surgical Operations.—Dr. C. Harper Richardson describes at some length the methods employed for sterilizing surgical dressings and materials, and advocates the preparation by the surgeon of his own supplies. The article is illustrated, but the methods and apparatus have for the most part but little of novelty about them. The author refers the reader to Dr. Clark's article in the *Johns Hopkins Hospital Bulletin* of February and March, 1896, for details regarding the treatment of gut intended for use in ligatures.

Angina Epiglottidea Anterior.—Dr. Clement F. Theisen presents a colored plate illustrating a typical case of this comparatively rare affection, and also gives the history of three cases which have come under his notice. The author earnestly urges resort to the laryngoscope in all cases in which patients complain of severe pain in the throat and of inability to swallow, for by its aid a correct diagnosis of the disease can always be made. He advocates early scarifications and the use of iced ichthyol spray. A full bibliography of the subject is presented.

Carcinoma of the Stomach with Report of Cases Showing Increased Hydrochloric Acid. By Dr. Andrew MacFarlane.—The author presents a series of sixteen cases of carcinoma of the stomach in which hydrochloric acid was present, although the absence of this acid is ordinarily considered the most characteristic symptom of this disease. In twelve of the cases reported the diagnosis was confirmed by operation or post-mortem examination, and six have clinical histories highly suggestive of a preceding ulcer. Hydrochloric acid was continuously present in thirteen cases and for a time was found in the other three where it was later replaced by lactic acid. The pylorus was involved in seven cases, the pylorus and lesser curvature in two, the lesser curvature alone in one, and the growth was diffuse in one case. Lactic acid was present late in four patients, in three replacing the hydrochloric acid and in one associated with it. All suffered greatly from vomiting, retention determined by the presence of sarcinæ or food was well marked, emaciation and loss of strength were striking in every case, and the appetite was poor in most of the cases. The author points out that the histories cited prove the possibility of the existence of carcinoma of the stomach in the absence of what is considered as the most characteristic symptom, and that in making a diagnosis this possibility should always be taken into consideration.

New Orleans Medical and Surgical Journal, July, 1900.

Simple Fracture of the Patella: with Some Suggestions as to Treatment. The Riveting of Other Bones, etc. By Dr. E. Denegre Martin.—The author divides fractures of the patella into two classes—those occurring in very thin subjects where separation of the fragments is not wide and hæmorrhage is slight; and those occurring in fat subjects where the same conditions exist. In the former arthrotomy is not necessary. The ends of the fractured bone can be easily brought into apposition and held in place. The author considers this to be best accomplished by encasing the leg in plaster with a fenestrum at the knee sufficiently large to expose the patella. He has found a splint molded from gauze or blanket, V-shaped and soaked in plaster, fitted behind each fragment and held in position by a figure-of-eight bandage, the most effectual method of keeping the bones in apposition. Slight pressure should also be made over the site of fracture to prevent tilting. If the pre-patellar tissues are found to be interposed between the fragments of bone and prevent close apposition, they can be lifted by inserting a straight needle through the tissues between the fragments. In the latter class, owing to the interposition of a mass of adipose tissue such treatment will not insure satisfactory results, therefore these cases should be operated upon when the patient's health and environment permit. Where, however, the fragments are widely separated, hæmarthrosis marked, showing extensive laceration, and the pre-patellar tissues are interposed between the fragments, the author considers operative intervention essential. The author then suggests a method of wiring the patella by means of staples practically identical with that used by Dr. Kittredge (*Boston Medical and Surgical Journal,* November 19, 1891), to whom he refers. From Dr. Kittredge the author learns that though necrosis has occurred in a few cases, it has never been sufficient to prevent bony union. The riveting, the author thinks, can be best effected by removing blood clots, trimming the ragged edges of the periosteum and pre-patellar tissue, and holding the fragments in perfect apposition with a heavy, double-pronged vulsellum forceps. The staples are then put in position and driven in without drilling. If it is desired not to open the joint the fragments should be brought together with the vulsellum, and a long, straight needle inserted between the fractured ends and lifted upward so as to remove any intervening tissue. The fragments should then be properly adjusted and held firmly in position by the vulsellum. A vertical incision, one inch in length, should be made, crossing the line of fracture at right angles, and over the centre of the bone and through all the tissues to the periosteum. A retractor should be inserted and the line of incision pulled to one side and a staple driven in. The retractor is then inserted from the opposite side and the second staple driven in in the same manner from one-half to three-quarters of an inch apart and the skin incision closed. This method can be used with other bones.

Measles and Small-pox in Children. By Dr. E. M. Dupaquier.—The author summarizes 128 cases of measles and one of small-pox under his own observation. Five cases of measles were well authenticated second attacks, two of them very severe. The immunity of sucklings, so far as it exists, is to be attributed chiefly to the fact that they are comparatively isolated in their cribs, being unable to walk or play. Dr. Dupaquier concludes from his results that under the age of four every child with measles is liable to complications, and complicated cases of measles under that age are unfavorable. The following were the complications observed by him: Rubeolic croup, one case; bronchitis leading to croupous pneumonia, two cases; bronchopneumonia, fourteen cases (with five deaths, or thirty-five per cent.); acute pleurisy with effusion, one case; enteritis two cases, both fatal; scarlet fever, one case; acute nephritis, one case. He concludes that measles may be complicated by almost any other of the infectious diseases, one developing as the other subsides. To attain antisepsis of the mouth, he smears the lips, gums and palate with boric acid, five parts, to glycerin, thirty parts, every two hours. For the nose he orders a glymol spray containing a one-to-two per cent. camphor menthol solution every two hours. For the lungs, a teacup half filled with hot water to which a teaspoonful of compound tincture of benzoin has been added is placed over a lamp and kept simmering night and day. Ventilation of the room for half an hour, every two hours is ordered. Or a teaspoonful of creosote may be kept simmering in a deep porcelain lined plate over a gas heater. In bronchopneumonia a teaspoonful of the following mixture is given to clear the bronchial tubes:

℞ Powdered ipecacuanha..........	6 grains;
Syrup of ipecacuanha.........	600 minims.
M.	

The body is washed twice daily, using sublimate soap and warm water, and smeared in the interval with sodium salicylate, 4 parts, cold cream 100.

The Care and Treatment of the Insane. By Dr. G. A. B. Hays.

A Few Notes on Obscure Cases of Syphilis with Relation of Two Cases of Extra Genital Chancre. By Dr. L. G. Le Beuf.—The author relates the case of a local Nestor of the profession whose phenomenal success in obscure cases lay in the fact that all chronic and obstinate cases that did not answer to regular symptomatic treatment he invariably treated for syphilis, and almost invariably affected the case for good. Two cases of extra genital chancre, one in the nose and one on the lip, and a case of cerebral gumma of the left side of the brain diagnosticated and cured by inunction treatment are recorded.

A Case of Acetanilid Habit. By Dr. G. W. Gaines.

Montreal Medical Journal, July, 1900.

Presidential Address. The Mutual Relation of the Profession and the Public. By Dr. D. Mackintosh.

Chills in Typhoid Fever. By Dr. W. W. Ford.—The author, treating of the concurrence of typhoid fever and malarial disease, records in great detail a case which occurred in the medical wards of the Johns Hopkins Hospital in the service of Dr. Osler. This case presented a combination of symptoms which for the period of the entire stay of the patient in the hospital was looked upon with suspicion as being a combination of typhoid and malaria, but which during life to all apparent observations was absolutely negative for malaria and which at autopsy showed positive evidence of the lesions of typhoid fever.

On a Monster Presenting Anterior Duplicity. By J.

G. Adams, M. D., Professor of Pathology, McGill University, Montreal, and G. P. Girdwood, M. D., Professor of Chemistry, McGill University, Montreal.—The fœtus, recently presented by Dr. W. H. Macdonald to the Pathological Museum in McGill University, is well and symmetrically developed, possessing two completely separated heads with cutaneous fusion in the neck region; the outer arms of either fœtus are normal and relatively well developed, while there is an imperfect, fused, median extremity passing upward between the two heads. This median anterior extremity is formed of a single line of bones, and its axis is shown by the skiagraph to be composed of a single series of five bones. While externally there appears to be but a single body, the skiagraph clearly shows that here, as generally in double-headed monsters, there is a double vertebral column down to the sacrum. This is said to be the second recorded case of well developed anterior duplicity occurring in Canada. On these cases the authors point out "that while, as Geoffroy St. Hilaire the elder pointed out long ago, it is possible that when two separate fœtuses develop from one ovum, fusion may eventually develop where the two bodies come into apposition, mere fusion cannot explain cases such as those here exhibited. When we consider that we may have the whole succession of forms from those in which there is simply a deduplication of the pineal gland, through cases in which the head is provided with a median eye and two lateral eyes, and cases of janiceps, such as that recently shown before our society by Dr. Macphail, through other stages represented by our present specimen and by Dr. MacCullum's case, down to cases like the Siamese twins, in which the band joining the two otherwise completely separate individuals marks the site where a common umbilical cord entered the body, we can only conclude that in the very earliest stages of the development of the ovum, there may be a greater or less bifurcation of the head end of the ovum and the development of a Y-shaped medullary groove, so that in the hinder portion there is developed a single medullary groove with single sets of organs, and anteriorly the organs develop round two growing points. The numerous experimental researches upon the fertilized ovum of lower animals made during the last few years, tend to prove that this is the case. In other words, such monstrosities must with the rarest possible exceptions be the product of not the fusion of two original separate ova, but of a single ovum which has undergone a division at its anterior pole."

Stereoscopic Vision. By Dr. G. P. Girdwood.

The Segmentation of the Head. By Cresswell Shearer.

Why Medical Men Should be a Court of Justice in Criminal Cases. By Dr. J. J. Cameron.—The author argues that under the present constitution of courts of justice the crime, and not the criminal, is under examination. While the legal profession alone, he says, has faculties for examining the crime, the medical profession alone can properly examine the criminal. We are all born the products of our antecedents, so that the doctrine that all men are born equal is absurd. Surely the idiot is not born the equal of him born with a *mens sana in corpore sano*. Between the idiot and the normal born there is every gradation of inequality, mentally, morally, and physically. Responsibility varies in each according to his intelligence, his "capital," his power of resistance. In the church, the state and social order the rights and duties of members are founded on the assumption of absolute equality among themselves. Absolute equality does not exist; therefore, the laws governing the rights and duties of members cannot be uniform and constant for all. As a conclusion from these premises the author says: "Let there be a medical court for criminal cases, one composed of educated medical experts, whose broad culture and special knowledge will make them the highest authority in the land on such questions as criminal responsibility; whose professional skill will enable them to judge and distinguish the motives, the 'capital,' and the power of resistance of the unfortunate criminal, and who will prescribe treatment or punishment according to the necessities of each case."

Abnormal Electrical Storage in the Human System. By Sir James Grant, M. D.—The author argues that the pain in conditions of myalgia, lumbago, etc., commonly supposed to be due to rheumatism, and for which acupuncture has proved an efficient remedy in many cases, must have some connection with an excited condition by electrical accumulation in both nerve and muscle tissues, a condition of abnormal electric storage. Immediately the needles are touched, after insertion, the electric accumulation is simultaneously discharged and passes through the body of the operator without any serious result. Two cases are recorded.

Notes from Practice in the Argentine Republic. By Dr. F. G. Corbin.—The author records cases of pylorectomy, hepatectomy, implantation of ureters in the bowel, radical cure of an inguinal hernia in a woman ninety-eight years old, and discusses the treatment of acute gonorrhœal arthritis.

Philadelphia Medical Journal, August 18, 1900.

Military Surgery. By Dr. W. C. Borden.—In this article, which is a continued one, Dr. Borden demonstrates that, notwithstanding the advantages of modern surgery, the greater destructive effect of the small calibre rifle has maintained the average gravity and fatality of wounds of the skull and brain.

The Scope and Aim of the Work of the Section of Tropical Diseases: Address Delivered at the Annual Meeting of the British Medical Association. By Col. Kenneth Macleod, M. D. [Ret. I. M. S.].

Interrelation of Pathology and Bacteriology. By E. E. Klein, M. D., F. R. S.—Pathology, intent on answering the "what" as also the "why," asks not, merely, What is the intimate nature of a particular change and aberration of a tissue or organ from its normal or physiological state? but also, Why this change, and what is its cause? That it is by the aid of bacteriology that the latter question is being answered, is the argument of the author. Inflammation, necrosis, and specificity of cell secretions are some of the subjects to which the author refers for aid in his demonstration, and the interrelation and interdependence of the two sciences is well shown.

The Teaching of Pharmacology. By Dr. Walter G. Smith.

Some Problems in Rural Sanitation. By John C. Thresh, D. Sc.

Work of the Surgical Section. By Howard Marsh, F. R. C. S.

The Treatment of Wounded at Sea. By Inspector-General Belgrave Ninnis, M. D., R. N.

Medical Record, August 18, 1900.

Extrabuccal Feeding. By Dr. C. A. Ewald.—The only circumstances under which this method may be followed for an indefinite time without the supervention of a state of malnutrition, is in those cases of gastric fistula in which the operation is necessitated by a benign stricture of the œsophagus. In weakened individuals, however, it may be possible to increase the nitrogen conversion, and even to cause an accumulation of nitrogenous substance and fat. At best, extrabuccal feeding should only be resorted to temporarily, or as an aid to the natural methods *per os*. The author prefers nutrient enemata to the subcutaneous injection of oil, and believes that the applicability of the latter lies rather in isolated cases.

Migrated Ovarian and Parovarian Tumors. By Dr. George M. Edebohls.

Posterior Colpocœliotomy for Lesions of the Adnexa and Uterus: Its Indications and Technique. By Dr. Charles Greene Cumston.

Hæmatomyelia. Three Cases. By Dr. W. F. Becker.

Medical News, August 18, 1900.

The Treatment of Acute Alcoholism by Large Doses of Digitalis. By Dr. Henry P. Loomis.

Subsequent Histories of Patients Apparently Cured Under Administration of Antitubercle Serum as an Auxiliary to Climatic Treatment. By Dr. J. Edward Stubbert.—The author's experience in this matter has been large, and his treatment of the question is fair. Serum therapy, in his opinion, is simply another auxiliary to climatic hygienic and dietetic treatment. In cases in the incipient stage it seems to be ahead of all other recognized agents. Its greater value lies in the fact that, apparently, there is established an immunity, the duration of which can only be measured by years of observation.

Acute Anterior Poliomyelitis. By Dr. E. D. Bondurant.

Rural Sanitation. By Dr. John C. Thresh.

The Treatment of the Wounded at Sea. By Dr. Belgrave Ninnis.

Modern Pathology. By Dr. E. E. Klein.

Tropical Diseases. By Dr. Kenneth Macleod.

Journal of the American Medical Association, August 18, 1900.

The Surgical Treatment of Conical Cornea. By Dr. Robert Sattler.—The surgical treatment is uncertain, dangerous, tedious and, in most cases, unsatisfactory. In the more desperate cases the most rational plan of surgical interference seems to be the removal of the lens by discission or extraction, followed by superficial cauterization and tattooage—simply to render the ectatic region opaque, but not with the hope or object of bringing about greater resistance therein, or, what is less likely to occur, a better restoration of shape and curvature of other parts of the cornea. After this, a small iridectomy may be performed in that locality in which it may effect the greatest possible good. Surgical interference, while not often of imperative necessity, is sometimes of practical expediency.

The Treatment of Keratoconus with Galvanocautery. By Dr. Herman Knapp.

Therapeutics of Travel in Mental Diseases. By Dr. Richard Dewey.—Before prescribing travel and change of scene, the needs of the individual case should be carefully considered, since travel may be good in one stage, and bad in another, of the same disease. In nervous diseases the real weakness of neurasthenia and hysteria requires rest rather than motion, though the patient may seem strong to all outward appearance. Certain self-centred patients can gain no benefit from travel. Delusions of persecution, suicidal or homicidal tendencies, and active and changing mental conditions, contraindicate travel. In most cases treatment should be combined with the change of surroundings. Visits to friends are of little use. Long journeys should be very carefully considered in all their bearings before they are undertaken.

Morphinism from the Standpoint of the General Practitioner. By Dr. T. J. Happel.

Medico-legal Relations of Opium Inebriety and the Necessity for Legal Recognition. By Dr. T. D. Crothers.

Treatment of Morphinism. The Necessity of a More Universal Knowledge Thereof: Report of Cases. By Dr. A. J. Pressey.

Syphilitic Locolosis Alveolaris. Pyorrhœa Alveolaris. By Dr. G. Lenox Curtis.

Neurotic Affections of Interstitial Gingivitis. By Dr. J. G. Kiernan.—The author dwells on the relation between tropho neuroses of the gums and disturbances of the cranial and spinal nerves on the one hand and certain psychoses on the other, and says that in dealing with the question of treatment the trophic factor should be taken into consideration, more especially as the structures involved, since they are of a transitory type, are peculiarly liable to its operation.

Interstitial Gingivitis from Indigestion Autointoxication. By Eugene S. Talbot, M. D., D. D. S.

The Therapeutic Uses of the Thymus Gland. By Dr. Solomon Solis-Cohen.

Medicine and Medical Men in the United States. By Dr. A. Jacobi.

The Boston Medical and Surgical Journal, August 16, 1900.

The Psychic Factor in Disease. By Dr. Robert W. Greenleaf.—The term is given by the author to the mentoneural relation which appears in many cases in private practice. Starting out with a few propositions, for example—(1) "Some cases of illness are simply neuroses without appreciable pathological lesions;" (2) "Purely psychic causes," "may pave the way for, if not directly cause, profound pathological disturbance;" (3) "Attention to the psychic is capable, under some conditions, of so turning the scale to health that it may arrest, even perhaps cure, otherwise fatal pathological conditions," the paper goes on to give illustrative cases, and the appropriate conclusions are evident.

In the greater number of cases given by the author, it would seem that a consideration of the "Psychic Factor" simply renders it incumbent on the physician to exercise tact, and to consider the mental habit of the patient. The behavior of nurses is considered, and a case is given, without comment, of a nurse, who was so unmindful of the psychic factor as to tell uninteresting stories and neglect her nails. The patient died; but, the author believes that, had the nurse entered into more helpful psychical relations with the patient, the outcome would have been happier.

Cerebral Abscess of Otitic Origin: Operation: Death. By Dr. George L. Richards.

Purgation with Opium. By Dr. J. W. Wainwright. —Child, five years of age, ate about two ounces of cheese which, it was believed, had lodged at the ileo-cæcal valve. His bowels not acting for five days, operation was decided upon; but, upon the advice of a surgeon called in consultation, two drops of the tinctura opii were given on the tongue every half hour for two hours. Upon recovery from the effects of the drug, the child had a free stool, passing a knuckle-shaped mass which proved to be the cheese. The cathartic action of the opium was due to the complete muscular relaxation, extending even to the muscular coat of the intestines.

Volvulus: Operation: Recovery. By Dr. W. P. Giddings.

Pædiatrics, August 15, 1900.

The Use of the Diphtheria Antitoxic Globulins of the Blood Serum Instead of the Entire Serum in Diphtheria. By Dr. William H. Park.—The effort to separate the diphtheria antitoxine from the blood serum, so that the antitoxic effect might be retained while the deleterious effects produced by the injections of blood serum might be obviated, has been constant since the discovery of the value of diphtheria antitoxine. Dr. Park believes that these efforts have been rewarded by success. The fact, made evident by experimentation, that the antitoxic substances are closely combined with the globulins of the blood, and are precipitated in common with them, has made clear the road to pursue. The author has, therefore, obtained his "antitoxic globulin" by precipitation from the serum with magnesium sulphate and then filtering. The full technique is given in the article. Unfortunately, however, the deleterious effects attending the serum antitoxine seem to attach also to the "antitoxic globulin," but a practical advantage would seem to attach in having a soluble, permanent and compact dry antitoxic substance which is not in danger of quick deterioration.

A Suspension-pressure Chair for Rotary-lateral Curvature of the Spine. By Dr. Philip Hoffmann.

A Case of Nasal Diphtheria Complicated by Bronchopneumonia. By Dr. Samuel McC. Hamill.

The Lancet, August 11, 1900.

Maternal Mortality in Childbed. By William J. Smyly, M. D., F. R. C. P. I.—[Address in Obstetrics delivered at the annual meeting of the British Medical Association.] Vide *British Medical Journal.*

On the Prevention of Insanity. By R. Percy Smith, M. D., F. R. C. P.—[Introductory Remarks delivered at the opening of the Section of Psychology, British Medical Association.] Vide *British Medical Journal.*

The Remote Results of Structural Lesions in Urethro-stenosis. By Reginald Harrison, F. R. C. S., Eng.—The author of this paper states that he has for a considerable period of time examined a large number of patients during life, and after death, who had been operated on by various methods for urethral stricture, with a view of noting the manner of healing in each case and determining the remote results. The methods observed were those of rapid divulsion or rupture, and the incised wounds made by internal and external urethrotomy.

The conclusions reached are as follows:

1. That in peri-urethral strictures of the deep urethra the effects of divulsion may be limited to rupturing the dense stricture bands in the submucosa of the urethra, while the mucous membrane itself escapes and is merely restored by stretching to its original dimensions. Here a permanent cure may result. If the mucous membrane is in itself the seat of stricture and is torn and lacerated, the operation is liable to be followed by recurrence of the stricture in a more contracted form.

2. That there is evidence to indicate that where the entire thickness of a stricture can be included within an incision of moderate dimensions made by an internal urethrotome, the normal calibre may be completely and permanently restored. The result depends upon this fact, and not upon the subsequent use of a bougie, though this should always be used as a precautionary measure.

3. That in case of multiple strictures or strictures of the deep urethra of considerable dimensions, either in length or thickness, the tendency to recontraction and recurrence after internal urethrotomy is frequent.

4. That lesions of the urethra demonstrate the poisonous effects that unprotected and confined urine is capable of exercising upon the body generally and the local tissues, and the liability to such effects is greatly diminished where drainage and irrigation render these conditions of the urine unlikely.

5. The tendency to recontraction and recurrence of stricture after internal urethrotomy is largely diminished by the employment of systematic and efficient urine and wound drainage.

The Indications for Thyrotomy. By Sir Felix Semon, Bart., M. D., F. R. C. P.—The writer states that under improved technique this operation has very few dangers and drawbacks. He considers the indications for its performance are:

1. Foreign bodies in the larynx. To be employed when the foreign body is too large or too impacted to be easily removed *per vias naturales.* There should be no delay in these cases.

2. Injuries to the larynx—fractures, bullet wounds, etc., for the purpose of replacing fragments and holding them in position. Rare.

3. Laryngocele. Rarely present and more rarely causes serious symptoms. Extirpation of the cyst indicated.

4. Thyrotomy in stenosis of the larynx. Cases in which intubation and dilatation fail.

5. Acute laryngeal perichondritis. Rare.

6. Laryngeal tuberculosis (including lupus). Circumscribed cases which cannot be reached by intralaryngeal interference when the general state of health is good. Danger of tuberculous infection of the wound great.

7. Scleroma of the larynx. Preniazek has performed the operation in 130 cases and considers it the most trustworthy method of dealing with this disease.

8. New growths in the larynx. (a) Benign growths. Only those cases which cannot be removed by interlaryngeal operation. Exception—multiple papillomata in children. (b) Malignant growths—To be employed in all cases at once when the true nature of the disease is positively known or reasonably sure, when microscopical examination is impossible, or the results negative.

A New Disease with a Specific Urinary Reaction. By N. F. Surveyor, M. D., Bombay; M. R. C. P., London.—The writer reports the case of a Parsee woman who on two occasions, two months apart, was attacked with pain in the eye, followed by congestion of the conjunctiva, œdematous swelling of the face on the same side, and the skin covered with a small pin-head-like vesicular eruption. Before the first attack she had received a wound of the left thumb which was then dry and unhealthy, but there was no swelling or pain except near the wound. Before the second attack the wound had healed. The temperature never rose above 99° F., but fever was present in both attacks. The peculiar feature was the urinary reaction. Adding a drop of strong caustic soda solution to the centrifugalized deposit, in order to test for pus, caused the urine to assume a bright pinkish purple color. This continued throughout the attacks and was present in the second before any drugs had been administered. No opinion as to the nature of the disease is expressed.

Eczema and the Allied Diseases: An Outline of their Ætiology, Pathology, and Treatment. By W. T. Freeman, M. D., Durh.; F. R. C. S., Eng.—The writer defines eczema as a "serous inflammation of the skin not produced by any form of external irritants." He makes a sharp distinction between dermatitis and eczema, and considers the latter a distinct disease produced by a specific micro-organism.

The treatment based on this theory is removal of crusts, dirt, etc., and the application of soothing ointments containing some mild germicide.

A Case of Puerperal Septicæmia Treated by Anti-Streptococcic Serum and Complicated by Phlegmasia: Recovery. By A. Hamilton Wood, M. D.—The writer reports a case of this disease in which he injected on three different occasions 10 cubic centimetres of antistreptococcic serum. On each occasion the temperature fell from 3° to 4° within twelve hours after the injection and remained down for forty-eight hours until after the third injection, when it did not rise again. The rapidity of the pulse varied also with the temperature. Nine days after the onset the temperature and pulse were normal. The phlegmasia occurred the following day and caused a slight rise of temperature for a few days. No after-effects followed the injections, and thirty days after her confinement the patient was entirely well.

The Sympathetic Origin of Post-Enteric Tachycardia. By P. Clennell Fenwick, M. B., L. R. C. P., Lond.; F. R. C. S., Eng.—The author considers the rapid or irritable heart action in patients convalescing from typhoid fever to be a sympathetic disturbance arising in the superior mesenteric plexus and thus transmitted to the cardiac ganglia and plexus, this disturbance being due to the intestinal inflammation.

British Medical Journal, August 11, 1900.

The Maternal Mortality in Childbed. By William J. Smyly, M. D., F. R. C. P. I.—[Address in Obstetrics at the Annual Meeting of the British Medical Association.] The speaker stated that in the first half of the present century, the mortality amongst parturient women, especially in hospitals, was probably greater than in any other period of the world's history. The most marked improvement had taken place during the last quarter of the century. Taking the classification of the Registrar-General of deaths due to: 1. Septic infection; 2. Accidents of childbirth; 3. Unconnected with childbirth; the greatest improvement was observable in the first group, viz.: septic infection. This he thought was due to these facts: 1. The true cause of puerperal fever began to be generally recognized and accepted about this time, though it was clearly expounded in a book published by Dr. White, of Manchester, in 1791. 2. The principles of antiseptic surgery began to be applied to obstetrics. He feared that there had not been the same improvement in the mortality in private practice as in hospital practice during the same period, though no statistics were available. As means for keeping maternal mortality as low as possible, he advised the avoidance of a prophylactic douche as a routine practice; a reliance upon external examination for diagnosis; a limitation of internal examination to cases in which external examination failed to give the necessary information; and when necessary the hands should be rendered as aseptic as is possible.

On the Prevention of Insanity. By R. Percy Smith, M. D., F. R. C. P.—[Introductory Remarks delivered at the opening of the Section of Psychology.] The speaker said that in England and Wales there had been a marked increase in the number of cases of insanity during the last few years. This increase was not only in the actual number of cases, but what was more important, the ratios of the insane to the general population had increased also.

He believed that this increase was largely due to three causes:

1. The propagation of the race by those of insane inheritance, or those who had suffered from insanity. The report of the Lunacy Commissioners for 1898 showed that during five years, 1893-97, hereditary influence was attributed as a cause of insanity in 20.4 per cent. of the cases among males and 25.9 per cent. among females.

2. Alcohol. In the same report alcohol is given as a cause in 22 per cent. of the males and 9.1 per cent. of the females, referring only to its effect on the individual, and taking no account of alcoholic inheritance.

3. Syphilis as a Cause of General Paralysis. Statistics showed that the general paralytics admitted to asylums, hospitals, etc., constituted 13.1 per cent. of the males, and 2.8 per cent. of the female cases, and were the most serious cause of death in all asylums.

He thought there should be legislation to exercise some control over these three causes.

Ocular Headaches. By W. A. Brailly, M. A., M. D.—[Introductory Remarks delivered at the opening of the Section on Ophthalmology.] The speaker stated that headaches might be produced by errors of the intrinsic or extrinsic muscles of the eyes, but that in the majority of cases the intrinsic muscles were at fault; while errors of the extrinsic muscles produced more migraime, giddiness and general distress. It was a general law that the larger the ocular error the less the effect produced upon the head, the reason being that a great effect of accommodative power led to its abandonment, the patient seeing as best he could without it. The same was true of the extrinsic muscles, but where there was a tendency to binocular vision, the greater that tendency the more headache produced by an error of the recti and oblique muscles.

An Introductory Address. By Scanes Spicer, M. D., B. Sc. Lond.—[Delivered at the opening of the Section of Laryngology and Otology.] The speaker said that he regarded *any insufficiency* of the nasal passage which interfered with full, free nasal respiration by day and night in all positions of the body as pathologic, and tending to the production of catarrhal conditions of the nose, throat and ear. His experience had led him to consider that most cases of nasal obstruction originated in an injury which might be slight. He also wished to call attention to the fact that nasal obstruction due to the presence of adenoid tissue alone was very uncommon; that fractured and deflected cartilages, turbinal enlargements, hypertrophied tonsils pushing and growing up behind the soft palate, were often more important features in the case. Failure to recognize these conditions or to act upon them was responsible for the unsatisfactory results sometimes obtained. In his opinion hundreds of operations for adenoids were done every year unnecessarily, when adenoids were either not present or were only an insignificant element in the nasal obstruction.

La Presse Médicale, August 1, 1900.

Infection of the Parotid in the New Born.—M. E. Bonnaire and M. G. Keim find that micro-organisms in the mouths of infants are never present until after the rupture of the membranes. They invade the mouth, however, when the head is engaged for a considerable time in the vagina, as it usually is, or when the mouth is entered by the fingers of the accoucheur in operative procedures during birth or after birth for cleansing purposes.

The germs may thrive on a slightly injured mucous membrane and the parotid may thus become affected, or other cavities accessory to the mouth may become the seat of an inflammation. A sepsis thus originating may become mortal.

Late Results of Severe Fractures of the Face. By M. F. de la Pusenne and M. René Le Fort.

Wiener klinische Rundschau, August 5, 1900.

Pure Milk Diet in Diabetes Mellitus.—Dr. Arthur Berger found that very mild cases of diabetes lost their urinary sugar by being placed upon a strict milk diet; nor did the sugar reappear after a subsequent ingestion of carbohydrates. All other cases, however, were characterized by a great increase in the quantity of sugar excreted, and this was noted in young as well as in elderly patients.

Agglutination of the Labia Minora.—Dr. M. L. H. S. Menko reports two cases of this rare anomaly. He thinks it analogous to phimosis in boys. The cause is probably uncleanliness, although an eczema may produce it. The treatment consists in separating the labia with a flat sound, frequent subsequent washings and the daily placing between the labia of a small tampon moistened with boric or salicylic acid.

Deutsche Medizinal-Zeitung, August 6, 1900.

Medico-legal Aspect of Death from Burns.—Dr. Lipkau continues his pathological anatomical review of the different degrees of burns and of the diagnosis between burns and skin diseases. (*To be continued.*)

Deutsche Aerzte-Zeitung, August 1, 1900.

Measurements of Blood Pressure by Gaertner's Tonometer. By Dr. Karl Doering.

Abdominal Injury Due to Indirect Violence.—Dr. R. von Hippel says that the main symptoms of abdominal injury are great pain, usually localized, vomiting, signs of shock, anæmia or cyanosis of the extremities. The pulse may be very rapid and compressible, or, in consequence of irritation of the vagus centre, it may be slow. Respiration is superficial, rapid and irregular, sometimes following the Cheyne-Stokes type. Death may result from profound vasomotor and pneumogastric irritation.

Critical Remarks on S. A. Knopf's Paper, "Early Recognition of Pulmonary Tuberculosis." By Dr. H. Weicher. (*To be continued.*)

Berliner klinische Wochenschrift, July 23, 1900.

The Anæmias.—A sketchy essay by Dr. H. Senator.

Migraine with Recurrent Ocular Paralysis.—Dr. W. Seiffer reports a case of a man who had suffered for over thirty years from migraine. On the same side as the migraine occurred he had repeated attacks of oculomotor paralysis, which condition has of late become permanent. The fundus of the affected eye is normal. No central tumor can be demonstrated nor is there any evidence of syphilis.

Systematic Efforts Against Tuberculosis in Germany. By Dr. Pannwitz.

Ætiology and Treatment of Tabes Dorsalis. By Dr. P. K. Pel. (*Conclusion.*)

Pathology of Malignant Tumors. By Dr. O. Israel. (*Conclusion.*)

July 30, 1900.

Surgical Means of Providing New Channels for the Portal Vein.—Dr. S. Talma reports a number of cases of hepatic disease, mainly hypertrophic cirrhosis with ascites, in which the liver became smaller and the ascites totally disappeared after the establishment, by laparotomy, of a collateral circulation of the blood of the portal system, by suturing the greater omentum to the parietal peritonæum.

Hæmolysine.—Dr. P. Ehrlich and Dr. J. Morgenroth continue their researches on the agglutinating action of foreign serum and the solubility of foreign red-blood corpuscles in serum.

Phenylhydrazin-anæmia.—Dr. Siegfried Kaminer and Dr. Reinhard Rohnstein find that by the subcutaneous injection of the muriate of phenylhydrazin into animals, they obtain a condition of the blood similar to that in pernicious anæmia. They question the opinion that pernicious anæmia is a true hæmiglobinæmia. Megaloblasts were seen in abundance, which is not the rule in experimental anæmia. The authors attribute this to the dose employed, as well as to the coincident decrease of leucocytes in the severe poisoning effected.

Systemic Infection in Urinary Diseases.—Dr. Posner and Dr. J. Cohn have experimented upon rabbits by opening the ureters and injecting into the peripheral ends pure cultures of pathogenic bacteria, the colon bacillus, prodigiosus, streptococcus, staphylococcus, proteus and anthrax. A peritonitis was a frequent result; death resulted from all the anthrax injections, while the prodigiosus and proteus experiments were negative. From their studies, the authors conclude that a pyelitis which is the result of infection by the colon bacillus is less dangerous to life than that evoked by the pus-producing bacteria.

Centralblatt für die gesammte Therapie, August, 1900.

Manual Treatment in Gynæcology.—Dr. J. Heitzmann, in a review of cases suitable for non-operative treatment, commends pelvic massage when old exudates are present. He regards the treatment of deviations of the uterus by massage and appropriate gymnastics as the most satisfactory. Hæmatocele must be carefully massaged in order not to rupture the sac, and hæmatomata disappear under the same treatment. Prolapsed tubes and ovaries are rendered less sensitive by this procedure and may even be permanently restored to their proper place. Movable kidney offers a proper field for this manœuvre and can usually be returned to its proper position. Throughout the author follows the teachings of Thure Brandt.

Riforma Medica, July 25 and 26, 1900.

On the Value of Gelatin as a Hæmostatic. By Dr. E. Gaglio.—After a series of experiments upon animals the writer draws the following conclusions: (1) Gelatin, when mixed directly with blood outside of the organism, slightly favors coagulation, and gives rise to the formation of soft coagula, not firm and contractile like those of normal blood or of blood treated with real hæmostatics. (2) Gelatin may be injected into the blood-vessels in very large doses without producing coagula within the vessels. It disappears slowly from the blood. The blood which is obtained after these injections coagulates a little more rapidly than normal blood; the coagula are soft and not firm and contractile. (3) Gelatin injected subcutaneously or into the peritoneal cavity is absorbed very slowly, possibly only by the lymphatics. This absorbed gelatin does not increase the coagulability of the blood. At the point of injection there appears an abundant infiltration of leucocytes attracted by the positive chemotactic property of the gelatin.

July 27, 1900.

Concerning Mastitis in Typhoid Fever. By Dr. Luigi Fornaca.—This complication is very rare in typhoid fever, and the textbooks on pathology scarcely mention it. An examination of the records of all the patients with typhoid fever admitted into the General Medical Clinic in Turin during the past ten years did not show a single case of mastitis or a single instance of any symptoms on the part of the mammary gland. The author believes, however, that this complication must be more frequent than is generally supposed. The patient whose history he gives in the present article was a woman aged forty years. On the twenty-ninth day of the disease she complained of pain in the right breast, which rapidly became so severe that she could not bear the pressure of the bedclothes. At that time convalescence had already set in and the temperature had been almost normal for three days. On the thirtieth day a swelling of the size of an orange was noticed in the right breast. There was no fluctuation and the tumor was very painful. The temperature rose to 40° C. (104° F.) and the symptoms of a relapse rapidly set in. This recrudescence lasted twelve days, when the patient again became apyretic. On the fifth day after the appearance of the swelling an exploratory puncture was made in the least resistant portion of the tumor. A few drops of sero-purulent fluid were obtained, and broth cultures were prepared from the specimen. On the seventeenth day of the relapse the left breast was similarly affected, and a week later a third relapse occurred, lasted four days, and passed off leaving the breasts painless, but still enlarged. On the seventy-fourth day after admission the right breast was almost reduced to its normal size, while the left was slightly enlarged, and indurated. The culture taken from the specimen of fluid obtained by puncturing the swelling showed the presence of the bacillus of Eberth. Widal's reaction was obtained with some of the culture mixed with the patient's serum in the proportion of one in forty. Five cubic centimetres of this culture injected into a guinea pig weighing 320 grammes resulted in the death of the animal in twenty-two hours.

July 28 and 30, 1900.

Nitroglycerine in Anxious Melancholia. By Dr. Giuseppe Paoli.—The remedy is administered as follows: The writer gives by mouth a solution made up after Huchard's formula [one-per-cent. alcoholic solution of nitroglycerine (forty drops) and water three hundred grammes (about ten ounces)] of which he administers from one to two teaspoonfuls during the attack; or the nitroglycerine may be given hypodermatically, especially if the patient refuses to swallow. The writer reports three cases of melancholia in which he has used nitroglycerine, and in summing up the results obtained by this treatment says that he has been able almost always to reduce the duration of the attack to a few hours, or at least to relieve the most distressing symptoms. Of course the treatment is only symptomatic and the benefit but transient, for the nitroglycerine only serves to remove the vascular derangement that causes the præcordial anxiety in these cases. In cases in which the melancholia is accompanied by contraction of the vessel and præcordial anxiety, it is well to ward off the attacks by giving the patient a solution of nitroglycerine twice daily for the first ten days of the month, followed by a course of treatment with potassium iodide for the remaining twenty days. In addition the writer orders glycerophosphates with strychnine and arsenic, and a milk diet, and watches the action of the heart and of the kidney carefully during the whole period of treatment.

Vratch, July 1, 1900.

Erratum.—In the abstract of Kourloff and Solovieff's article on page 302 of the August 18th issue, line 17, the word "coverglass" should have been printed instead of the word "slide," and the sentence should read: "Four or five cubic millimetres of blood are drawn directly from the finger into a graduated mixing-pipette, and immediately blown upon a coverglass."

July 8, 1900. (July 20, N. S.)

Florence's Test for the Determination of Seminal Stains. By Dr. D. L. Davidoff.—The writer found that an organic substance which forms a crystalline compound with Florence's reagent is present in the pollen and the generative organs of certain flowers, including many of the common field plants, and in certain seeds, fruits and mushrooms. (Florence's reagent is a strong solution of iodine and potassium iodide the addition of which to human spermatic fluid gives rise to the formation of brown crystalline plates.) The obvious conclusion is that stains on linen produced by infusions of flowers that contain this organic substance will give the same reaction as seminal stains. Experiments conducted by the author prove that this is so, and thus place a limit to the medico-legal value of Florence's test.

Experiments in Resection of the Thoracic Portion of the Œsophagus by the Transpleural Route. By Dr. V. D. Dobromyssleff.—These experiments were conducted on human cadavers and on living dogs with the purpose of determining whether the posterior mediastinum could be reached through the pulmonary pleura. The methods hitherto worked out are all extrapleural, and do not give convenient access to the œsophagus in the chest. The writer makes a large opening in the posterior aspect of the thorax by cutting through the ribs from the sixth to the tenth, and leaves the intercostal muscles at the inner, vertebral side of the square to act as a hinge for the window which he thus opens in the thorax. The pulmonary pleura is then incised along the œsophagus and this organ exposed. The flap of skin, ribs and muscles is sewed securely in place after the operation, and the air in the cavity of the pleura is pumped out with a negative pressure of over 30 millimetres. The operations were performed on dogs under ether anæsthesia and artificial respiration.

Urotropine Dilithiocitrate, or Uresin. Its Use in Renal Calculi. By Dr. I. V. Koudintseff.—This remedy was suggested by Spassky, a Russian pharmacist. Urotropin has been used in a uric acid solvent, but it has the disadvantage that after prolonged use the mucous membrane of the bladder is irritated. The remedy suggested by Spassky is a combination of urotropin, lithium, and citric acid. It is soluble in water and neutral in reaction, and may be given in doses of from 0.18 to 0.5 gramme (¼ to 10 grains) in twenty-four hours. It is best to begin with the smallest doses, gradually increasing until 1 gramme (15 grains) is taken three times daily. The author gives the history of one case, and asserts that uresin produces a diminution of the deposit of urates and of uric acid in the urine after a short time. If used in conjunction with proper diet for a considerable length of time it will probably not only dissolve the sediment in the urine, but also stop the elimination of uric acid, and possibly even so change the alterations in the tissues that are responsible for the formation of uric acid that no more stones will be formed. The writer does not state the number of cases in which he has used the new remedy.

Rupture of the Vault of the Vagina During Labor. By Dr. Bielitz-Heimann.—The patient was a primipara, 23 years old. The labor went on normally until after a series of especially severe pains, vomiting and hæmorrhage occurred. On palpation the child could be felt in the abdominal cavity, while the uterus, empty and contracted, was felt on the left side of the fœtus. On internal examination, a tear four fingerbreadths in width was felt in the left side of the vaginal vault. The hand was introduced into the abdominal cavity and the child turned by grasping one of its feet. The head was delivered by the Prag method, and the placenta followed the child through the tear. The vagina was irrigated with normal salt solution and lightly packed with iodoform gauze. The patient recovered after a short attack of puerperal fever. The writer calls attention to the fact that it is not always necessary to perform laparotomy in cases of rupture of the vaginal vault.

A Case of Vaginal Fistula Cured by the Transplantation of a Flap of Skin. By Dr. F. K. Weber.

Concerning Joint Effusions in Hæmophilia. By Dr. I. R. Manteufel.—(*Concluded.*) In speaking of the treatment of these cases the writer says that as the cause of hæmophilia is as yet unknown, there is no specific remedy for this diathesis. Z. Manteufel used zymoplasm (a substance prepared by the late A. Schmidt from the blood and supposed to contain the fibrin-forming elements of the plasma) with encouraging results, locally in bleeders. In the case of a boy who had a hæmorrhage from the gum after the extraction of a tooth, after all other measures had failed, Manteufel applied zymoplasm to the cavity on some absorbent cotton, with the effect of gradually arresting the bleeding. Certain orthopædic appliances can be used in hæmorrhagic effusions in the joints. The joints must be protected from injury by splints, and if ankylosis is present it may be overcome by the application of traction apparatus. In the local treatment such measures as rest, the application of compresses, bandages, massage, and active or passive motion may be useful. If the pain is not too severe the patient may be allowed to walk about. A moderate amount of motion, is, in fact, beneficial. The ether spray may be used to allay the pain, but it must not be applied unless the pain is very severe, for it inhibits absorption of the effusion. In the advanced cases in which suppuration occurs in the affected joint, the prognosis is very bad, as very little can be done to reduce the deformity or to restore motion once the ankylosis is firmly established.

July 15, 1900. (July 27, 1900, N. S.)

The Removal of Foreign Bodies in the Brain. By Dr. L. L. Levschine.—The writer reports the case of a man aged twenty years who had received a gunshot wound in the centre of the forehead over the roof of the nose. The bullet remained in the brain for over three years, during which he had severe headaches, paresis of the left upper and lower extremities and left hemianopsia. The pain in the head was localized in the right side of the occiput. Examination with the Röntgen rays showed the presence of the bullet at the level of the upper border of the external ear, 2.5 centimetres from the inner surface of the occipital bone and 3.5 centimetres to the left of the median line. Trephining was performed after the method of Doyen. An oval flap of soft tissues and bone was made with its centre just opposite the site of the bullet. The bullet was reached by pushing a Gigli's metallic probe through the substance of the brain after the dura had been incised. Along this probe Kocher's thin bullet-forceps was introduced and the bullet seized with the serrated blades, but it was not possible to extract it by this means, as the foreign body lay in the centre of a mass of scar tissue. The latter was first incised with a knife, and then the bullet easily removed. The recovery was uneventful, and the paresis of the extremities improved considerably, while the headaches disappeared completely.

Washing the Hands and the Field of Operation in a Solution of Potassium-olein Soap in Wood Alcohol. By Dr. L. L. Levschine.—The majority of surgeons use hard sodium soaps for the cleansing of hands and operative field. The writer prefers potassium soaps because they are less expensive, easily soluble in water, and therefore the solutions may be boiled and sterilized, and because clinical experience has shown him that the cleansing quality of potassium soaps is greater than that of sodium soaps.

The writer recommends the use of a solution of soft soap (prepared from oleic acid and potassium) in wood alcohol, heated to 35 or 40° C. (95 to 105° F.). The hands should be washed in this solution for about five minutes with the aid of a sterilized brush, and then dried with a piece of sterile gauze. The theory of the antiseptic action of this solution is that the oxidation of methyl alcohol (wood alcohol) which is rubbed into the skin results in the formation of formic aldehyde, a thirty-five-per-cent. solution of which constitutes formalin. Thus: $C_2H_5(HO) + O = C_2H_4\ O + H_2O$, and $CH_3\ (HO) + O = CH_2O + H_2O$. The hands are washed not in the operating room, but in an adjoining lavatory, to prevent the evaporation of the volatile methyl alcohol in the air of the former. After this washing the hands are immersed in permanganate solution and then in oxalic acid solution, and finally washed in sterile water.

Results of Experiments on Predisposition and Resistance to Tuberculosis. By Dr. Th. Z. Omeltchenko.—The writer obtained some serous fluid from a pleural cavity that was the seat of tuberculous inflammation, and injected small doses into guinea pigs. He found that if injections were given in quick succession the animals died, while if the serum was injected at intervals, the animals would become more and more resistant to the poison of tuberculosis. He did not find any tuberculous lesions in these animals. He then injected some cultures of the bacillus of tuberculosis into the guinea pigs that had resisted the injections of the serum, and they all died of tuberculosis after a certain number of days. The next series of experiments was performed on cats—animals that are not very susceptible to tuberculosis. He found that if pure cultures of tubercle bacilli were injected into the peritoneal cavity in cats, the animals exhibited a rise of temperature and general malaise for a few days, but then rapidly improved and remained well. In order to increase the resistant power against tuberculosis in these animals he injected some serum from a tuberculous pleuritic exudate into two cats daily for one month. These animals were then bled and the serum separated. Guinea pigs were now infected with tubercle bacilli, and two weeks later the writer began to inject some of the serum obtained from the immunized cats into the guinea pigs so infected. Both guinea pigs died in spite of this treatment. In order to determine whether the serum from the cats was poisonous in itself, he next injected one cubic centimetre every other day into perfectly healthy guinea pigs and the animals remained well. The author does not draw any definite conclusions from these experiments, but reserves his decision until further experience with cats shall give him a more secure basis.

Remarks Concerning Primary Suture in Suprapubic Cystotomy. By Dr. I. Ch. Dzirne.—The author replies to Dr. Ivanhoff, whose article on the same subject appeared in *Vratch* in 1899.

A Case of Vaginal Fistula Cured by the Transplantation of a Flap of Skin. By Dr. F. K. Weber. (*Concluded.*)

Miscellaneous.

Inversion of the Uncut Appendix.—Dr. J. F. Baldwin (*Columbus Medical Journal,* March) speaks very favorably of inversion of the uncut appendix, which operation he has practised in considerably more than a hundred cases, and which he performed eight or ten times during the Columbus meeting of the American Medical Association, eliciting expressions of great satisfaction from those who witnessed the operation. The technique of the operation, which is said to be beautifully simple, is described by the author as follows:

The appendix is freed from adhesions, if present, and brought up into view in the usual way. The tip of the appendix is held by an assistant with one hand, while with the thumb and forefinger of the other the colon is supported just below the origin of the appendix. With a ligature carrier a catgut ligature is then introduced at the base of the appendix, so as to include the meso-appendix, being careful to embrace the small artery that runs along close to the appendix. The meso-appendix is then ligated, the ends of the ligature being left long. With scissors the meso-appendix is severed just beyond the ligature, and the tissues constituting it are then seized either with fingers or forceps and stripped off the appendix from the base to the tip. This is usually accomplished with a single effort, but occasionally it will have to be removed in pieces. Not infrequently, and quite usually when operating on an acutely inflamed appendix, great thickening of the peritoneal and muscular coats will be found present. These coats will be so infiltrated that inversion is impossible. In such a case a longitudinal incision can be easily made with a knife or scissors, cutting through these two coats down to the mucous membrane. This having been done, the thickened coats are very easily peeled off, leaving merely the mucous membrane intact, which is so thin and soft as to offer little obstacle to inversion. Not infrequently, however, the distal extremity of this mucous membrane tube is obliterated as a result of previous inflammatory attacks. In such an event the obliterated end must be snipped off with scissors before proceeding to the next step. Care should be taken, however, not to open into the lumen of the tube.

The appendix having been thus prepared for inversion, the tip is seized between the thumb and forefinger and inverted by pressing upon it with the blunt end of a patent-eyed needle. The manœuvre is accomplished by a manipulation somewhat similar to that employed in putting a fish worm on a hook. The tip having been inverted for about the length of the needle, an inch or more, the needle is removed and an ordinary long probe substituted. With this the inversion is completed in an instant. (The author uses a steel probe, into the end of which is inserted a fine needle, projecting about one-eighth of an inch. The projecting needle prevents the end of the probe from slipping, while the blunt end itself does not easily lacerate the tissues.) If, as the probe is being introduced into the colon, carrying with it the appendix, it meets with a fold offering obstruction, it should be withdrawn and the rest of the inversion completed with the fingers. This is accomplished without any trouble whatever. Inversion now being complete, one end of the ligature which had been previously used is threaded into a needle and a single stitch taken across the opening in the bowel which marks the point of disappearance of the inverted appendix. If it seems desirable, two stitches can be taken. The catgut is drawn through until the stump of the meso-appendix, aided by a forceps, is brought up against the opening, and then by tying the two ends the operation is complete.

The vascular supply is so completely cut off by the ligation of the meso-appendix that the author has no doubt that the inverted organ promptly sloughs off or possibly undergoes a species of digestion.

In a very few cases in which operation is made for appendicitis, conditions will be found which will render inversion impossible or so difficult as to be unwise. These will be cases usually of gangrene of the tissues, or in which there is a tight constriction near the base of the appendix. Fæcal concretions if present can usually be readily forced into the colon, and open the way for more easy inversion. In cases in which inversion as above described cannot be practiced it will usually be found possible to cut off the appendix an inch or more from the bowel, and in these cases the inversion of the remaining stump will greatly diminish the chance of soiling by any possibility the field of operation; but in these cases more pains should be taken in closing the opening.

The operation is performed in a very few moments. There is no hæmorrhage connected with it, and no special danger of infection.

The Action of Drinking Water on Metals.—The following, from a paper published in abstract by Dr. Charles Harrington in the *Journal of the Boston Society of Medical Sciences* for June, may be of interest to the practitioner:

Iron.—The corrosion of iron pipes is favored by dissolved oxygen and carbonic acid, nitrites, nitrates, ammonium compounds, and organic and mineral acids. Iron compounds in solution, even in very small amounts, cause a marked disagreeable taste. Rust is often deposited in bends and near joints to such an extent as to cause complete occlusion. The undesirability of rust and soluble compounds of iron in appreciable quantity in water for domestic purposes requires no discussion, for the effects in the laundry and on the system are quite generally understood. To protect iron from corrosion a number of methods have been devised for coating the inner surface of pipes, but unfortunately most of the preparations used impart a distinct tarry taste, even when the pipe has been in use many months, and in addition there is necessarily a break in the continuity of the coating where joints occur, and thus the metal may be attacked at these points. Some natural waters tend to form a protective coating of vegetable matter within pipes of all kinds. This adheres with a good deal of tenacity, but when loosened and set free by any mechanical influence causes much unfavorable comment and even alarm owing to the temporary unsightliness of the running water.

Zinc.—On account of the corrosive action of water on iron, galvanized iron, that is to say, iron pipe with an inside and outside coating of metallic zinc, has been recommended and is much used. Unfortunately, almost any water is likely to attack the zinc lining and cause a more or less marked turbidity, generally, however, amounting only to a slight opalescence, due to extremely fine particles of oxide or basic carbonate of zinc. It is doubtful whether the use of such water can be productive of injury to health, yet the appearance of the water is unpleasant and disturbing to the mind of the consumer. Moreover, the coating may soon be worn out in places, so that the issuing water then possesses the double disadvantage of being opalescent from the presence of zinc compounds and rusty with iron. The chief corroding influences are dissolved oxygen and carbonic acid, but ammonium compounds and nitrates play an important part. Instances of complete blocking of pipes by deposits of oxide and basic carbonate have been recorded. Concerning the possible harmfulness of zinc compounds in water we know but little. The compounds found are not ordinarily regarded as poisonous, and even if they are absorbed there is no evidence that they can exert a cumulative action. It is probable that such action as they may exert is purely local, and ordinarily does not go beyond causing a slight tendency to constipation. It is known that waters containing notable amounts of zinc in this country, Sweden, and South Germany have been in use for many years by large numbers of persons with no record of harm. In fact, in one small German community the public water supply in use for more than a century contains several milligrammes of zinc to the litre and is regarded as perfectly unobjectionable.

Lead.—It is not generally known that waters of different composition attack lead in different ways and to very varying extents. All waters attack lead to some extent according to their content of dissolved gases, salts of various kinds, organic matters, and free acids. Dissolved oxygen and carbonic acid, ammonium compounds, organic and mineral acids, and nitrates promote corrosion; silicates, carbonates, chlorides, and sulphates exert in one way or another a protective influence. It is generally accepted that soft waters are more corrosive than hard waters, the latter tending to form protecting encrustations, but many soft pure waters exert but little influence, and many hard waters are markedly corrosive. Whether hard or soft, the presence of notable amounts of dissolved oxygen and carbonic acid favors corrosion. Soft surface waters which commonly contain small amounts of sodium bicarbonate are much less likely to be corrosive than the average ground water, which, generally, is richer in dissolved oxygen and carbonic acid. Distilled water, that is to say, water containing no dissolved salts, organic matters, or mineral or organic acids, but containing dissolved oxygen, which it acquires from the air during and after condensation, has a very marked corrosive influence, as can be very easily demonstrated by immersing a piece of lead pipe or lead tape over night. In the course of a few hours a distinct deposit of lead hydrate will be observed. Some waters take up minute amounts of lead compounds in solution, others produce distinct deposits of a crystalline nature. Those in which the lead is taken up in soluble form are less likely to produce harm, since when the pipes are flushed the poison in solution runs to waste; but where the lead compound exists in the form of a precipitate, it may be impossible with ordinary flushing to obtain water perfectly free from lead. It often happens that lead may be detected in notable traces in water which has been running with full force for fifteen minutes before the sample is taken. The reason for the persistence is that the compound is deposited along the floor of the pipe, and may be picked up only little by little by the water in its flow, so that it is practically impossible to clean the pipe absolutely.

The same water may act very differently at different times. A specimen which when freshly drawn may exert such a corrosive action that a deposit may be seen within a few hours may, on standing, lose its power in great degree. One which caused a deposit of measurable depth in twenty-four hours was found by the writer to have undergone such change on standing that no deposit whatever was formed at the end of a week's immersion of another piece of lead in another portion of the water; the corrosive power was restored by aeration produced by violently shaking a half gallon of the water in a capacious demijohn.

Tin.—Tin kept in contact with water for a long time imparts neither taste nor turbidity. A certain very small amount of tin is taken up, but this has absolutely no sanitary significance, since the only common salts of tin which may be regarded as poisonous are the chlorides. The combination in water is not a chloride. Even though it were a chloride the amount taken up is so small that one could hardly regard it as of any importance, for we have no reason to believe that it is cumulative in action. Unfortunately, at the present time tin is a very expensive material. The only way in which it can be used in water pipes is as a lining for pipes of other material, the ideal pipe being tin-lined iron. Tin-lined lead is very commonly used, but it is not to be recommended, on account of the danger of galvanic action being set up, whereby the lead will go into solution. This does not occur alone at the joints or where breaks occur due to bending, for not infrequently block tin of ordinary commercial purity is attacked in spots by water and perforated, probably by reason of local galvanic couples due to metallic impurities. In the case of tin-lined iron this accident is unlikely to have any serious results.

Some months ago, becoming interested in the question of the possibility of making an alloy of tin which might be used in place of the very expensive tin itself, experiments were made by the writer to determine what effect, if any, would be produced by contact of water with an alloy of tin and aluminum.

It was found that the smallest amount of aluminum which could have the desired effect of reducing the cost being ten per cent., and this amount yielding a copious precipitate, experiments with still smaller amounts could hardly serve any useful purpose. The compound produced cannot be regarded as in any way deleterious, the hydrate of aluminum being hardly to be included in the list of poisonous substances, but one would not care to draw water for drinking purposes and find large flocculi which would at once suggest to the layman organic matter of the most deadly character.

Injuries to the Eyeball.—Dr. B. L. Millikin (*Cleveland Journal of Medicine,* July) in a report on thirty-six cases of serious injury to the eyeball received at the Lakeside Hospital since January, 1898, points out the difficulty often incurred in persuading a patient who can still see after injury a considerable amount with an eye, to have it removed. Some of these cases prove the advisability of an extremely guarded prognosis in cases of penetrating wounds, which of themselves seem very slight. This is well illustrated in a case in which a small bit of metal remained in the eye for a period of four or five months, the man following his usual vocation without apparent detriment, with the ultimate loss and removal of the eyeball from the subsequent inflammatory processes.

Death During the Use of Schleich's Solution.—Dr. R. M. Stone (*Journal of the American Medical Association,* August 4th) records the case of a young woman twenty-three years of age, fairly robust, well nourished, with heart-sounds fairly clear and distinct and no valvular lesion, who was to be operated upon for recurrent appendicular inflammation, having recently recovered from her second attack. Upon beginning the anæsthesia, the Stone mask—a metal mask, rubber tired, with an opening on top of seven-eighths of an inch in diameter—was held two inches from her face, three minutes more being occupied in getting the mask down upon her face. The patient took the solution kindly and in six minutes had corneal anæsthesia, and, in two more, surgical anæsthesia. She was then carried into the operating-room and made ready. After about three minutes of preparation, she was relaxed; the pupils were very small; the lower jaw dropped. She barely flinched when the surgeon made the incision, somewhat more when he separated the muscles. Dr. Stone saw this and endeavored to make the anæsthesia more profound by dropping the solution on more rapidly. The reflex due to the incision and separation of the muscles did not cause the pupils to widen *at all,* for the author was watching them most carefully. It merely caused the patient to move a little. Her face was of good color; her pulse was good. The surgeon had removed the appendix, when the following sequence of events took place: The pulse became weak; then irregular; then intermittent, and finally ceased; the respiration, which had been regular and normal, became very rapid, for six or eight respirations only; while the pulse was failing, but before it had ceased, the pupils, which were still very small, dilated widely and death took place. With the first sign of trouble, Dr. Stone removed the mask; the face was then pallid.

The usual measures for restoration were unavailing. Death was due to paralysis of the heart centre, followed by paralysis of the respiratory centre.

Forceps Delivery: Fracture of Lachrymal Bone of Fœtus; Orbital Suppuration.—Petit and Aubaret (*Revue Mensuelle de Gynécologie, Obstétrique et Pédiatrie,* March; *British Medical Journal,* June 30th) report a symphysiotomy after failure of forceps delivery. The instrument was again applied, with ultimate success, after much difficulty. The mother did well. The child weighed nine pounds, and the cranium showed advanced ossification. There were several ecchymoses around the inner canthus of the right eyelid, which disappeared, but on the third day pus was discharged from the right eyelids, which were much swollen. The eyeball was pushed forward. The caruncle was œdematous, and, on palpation, fluctuation could be detected. Pus escaped from the right nostril in abundance. There was clearly pus behind the eyeball. An incision was made at the level of the outer border of the lower lid, where fluctuation was marked. A quantity of pus escaped, and on pressure not only did it come out of the incision, but it also ran out of the right nostril. On the next day the pus also escaped from the mouth. On examination a small fistulous tract was found to open above the gum on the right side. By the eighteenth day the child was doing well, after temporary loss of weight. The eyeball was almost in its place, the swelling of the lids trifling, but marked around the lachrymal sac. There was distinct asymmetry of the face. The injury which caused the suppuration seemed clear. In applying the forceps in the fronto-mastoid direction, the edge of the blade placed over the right frontal eminence slipped and fractured the lachrymal bone. There will probably be more complications in this case, in the eye and lachrymal duct.

A Rapid Method of Enucleation of the Eye.—Dr. A. T. Mitchell (*Mississippi Medical Record,* August) describes the following operation:

A curved needle with a strong double thread was passed well into the scleral tissues to give a stout hold on the eyeball. The conjunctiva being snipped vertically over the insertion of the internal rectus, the lower blade of a half curved pair of scissors was passed under the tendon, raising it into view.

The tendon, capsulo-bulbar fascia, trabeculæ, subconjunctival connective tissue and conjunctiva were incised at one time, not quite to the end of the scissors. The lower blade, still in the capsular space, was advanced under the superior rectus and a similar cut made, severing the superior oblique and tissues over it. The lower blade of the scissors that had never been removed from the capsular space was now carefully shifted downward, turned, and inserted under the inferior rectus, which with the inferior oblique was similarly divided. The bulb could then be rotated outward, and one cut for the nerve and one for the external rectus and tissues over it completed the operation.

An Improved Method of Treating Spina Bifida.—Dr. Villemin (*Revista de medecina y cirurgia Prácticas,* July 21st) has employed in a child nine years of age, too debilitated to support an operation, and with a bursa on the point of ulceration, injections of iodized liquid vaseline (1 in 1000), repeated monthly, the dose being augmented at each injection. The bursa was soon converted into a compact mass. The author considers this an improvement on Morton's method, which consists of injecting iodized glycerine. The glycerine being mixable with watery fluids, is dangerous when the communication between the tumor and the rachidian canal is extensive. The vaseline does not so mix, but remains on the surface, and by taking care that the child remains in the prone position the drug does not enter the rachidian canal.

The Treatment of Gastric Ulcer.—In the *Acute* form, according to the *Medical Chronicle* for June, the therapeutic measures advocated by Samuel Fenwick and Soltau Fenwick (Ulcer of the Stomach and Duodenum, London, 1900) are, briefly, rest in bed and milk diet. If hæmatemesis has occurred the patient should be confined to bed for three or four weeks, in other cases a shorter period will suffice. During the first month the diet should consist chiefly if not entirely of milk; the quantity at first given should not exceed six ounces every two hours, the amount being gradually increased until three pints are taken per day. If fresh milk produces discomfort, it may be skimmed, mixed with a small quantity of lime water, slightly alkalized with sodium bicarbonate or sterilized. In cases where the digestive powers are feeble it may be peptonized. Meat juices are all inferior to milk, but may with Benger's food be used to relieve the monotony of the milk diet. Solid diet must be gradually and cautiously resumed. At first farinaceous articles for a week, then finely divided fish or chicken and so on until the end of the second month, when ordinary diet may be allowed.

Relief of pain and regulation of the bowels are the only indications for drugs. For the former a combination of bismuth carbonate and sodium bicarbonate with morphine or dilute hydrocyanic acid if vomiting is troublesome, may be given ten minutes before food. Excessive flatulence may be met by the exhibition of carbolic acid or resorcine. The bowels should be regulated solely by enemata whilst the patient is in bed; later, cascara or aloes and iron may be given by the mouth.

During convalescence all pressure upon the abdomen by clothing, etc., must be avoided. The general *status* calls for some of the milder preparations of iron, or if these cannot be tolerated, manganese dioxide in two grain doses.

In the *Chronic* form Samuel Fenwick and Soltau Fenwick (*ibidem*) adopt a vigorous plan of treatment. They divide it into four periods.

First period.—Duration, from two to three weeks. The recumbent posture must be maintained throughout; in ordinary cases the first ten days, in severe cases the whole period, must be passed in bed. Local pain is best relieved by linseed poultices or moist compresses which should be replaced by cotton wool after ten days. If these fail morphine may be administered endermically or a couple of leeches may be applied to the painful area. Counter-irritation is of value during convalesence, specially when dragging pains are experienced on exertion. *Diet.*—If the ingestion of food is followed by pain or vomiting or if hæmorrhage has recently occurred, rectal feeding should be practised for three or four days. As in acute ulcer, milk must be the staple food, its form being varied to suit individual cases. At first it should be given in tablespoon quantities mixed with a little water every half hour; later, if sickness and pain are not induced, the quantity should be increased to four or six ounces every two hours, and by the end of the third week the amount taken in the twenty-four hours should be two quarts. When emaciation is marked a teaspoonful of cream may be added to each meal. If pure milk disagrees it may be modified as indicated under acute ulcer.

Second period.—Duration, until the end of the second month. Gentle exercise is permitted, and in some cases business may be resumed, but the longer the rest the better are the prospects of cure. The *diet* should be cautiously increased by the addition of eggs, milk puddings and partially digested infant-foods, and should include three quarts of milk per day. A meal should be taken every three hours. If the additions produce no discomfort then clear soups, meat juice and Leube's beef solution may also be added to the dietary.

Third period.—Duration, until end of sixth month. Milk must still form the staple food; with it may be associated bread, bread and butter, eggs, scraped raw meat, chicken cream, mashed potatoes.

Fourth period.—Duration, until the end of the twelfth or eighteenth month. Proteid diet is gradually resumed, the lighter meats at first being used. The following are to be avoided: Oily fish, tough meat, duck, goose, veal, crab, lobster, fat, condiments, spices, pastry, green vegetables, cheese, fruits, tea, alcohol. The meals must be taken at regular intervals, the food well masticated, and afterwards the patient should rest.

Medicinal.—Pain. Morphine is the best preparation of opium for the majority of cases. From five to fifteen minims should be given with alkaline mixture. Silver nitrate is often of great service; the authors use the oxide in pill form, commencing with half-grain doses, and cautiously increasing it to one grain, with the necessary intermissions; silver salts are specially valuable when hypersecretion is also present. For the administration of bismuth the following modification of Fleiner's method has been adopted. About an hour before breakfast the patient assumes such a position as will bring the contents of the stomach in contact with the ulcer, and then swallows about eight ounces of warm water, containing from two to three drachms of carbonate of bismuth. The drug is allowed to remain in contact with the ulcer for an hour, and then the patient has breakfast. For the first fortnight this procedure is carried out each morning, during the next fortnight on alternate days, and subsequently only once or twice a week. Whatever drug is employed to relieve pain, it must be combined with some alkali to neutralize the hyperacidity of the gastric contents, in most cases from fifteen to twenty grains of sodium bicarbonate is efficient, but occasionally liquor potassæ, calcium carbonate, or magnesia may be preferable. For the pain due to distension, an antiseptic, as glycerine of carbolic acid, in from eight to twelve minim doses, should be given along with the alkaline bismuth mixture.

Vomiting usually subsides after a few days' general treatment. If persistent, it may be met by the addition of dilute hydrocyanic acid or acetate of morphine to an alkaline bismuth mixture given before meals. In obstinate cases nutrition must be maintained for a few days solely by enemata. In neurotic women continued vomiting should be treated by nervine tonics, sedatives and epigastric counter-irritation. In rare cases gavage is necessary. When vomiting is the result of chronic gastritis, relief may be afforded by saline aperients in early morning, careful dieting, and the exhibition of the carbolic acid and bismuth mixture. In troublesome cases morning lavage may be necessary.

Constipation. The proper treatment of this complication is very important. Artificial carlsbad salts are useful.

℞	Sodium chloride	1 ounce;
	Sodium bicarbonate	2 ounces;
	Sodium sulphate	4 ounces.

M.

Two teaspoonfuls to be taken in a tumblerful of warm water before breakfast each day. When salines produce abdominal pain and loss of appetite, they may be replaced by infusion of senna pods or compound decoction of aloes.

Constitutional Treatment. To improve the condition of the blood some of the more bland preparations of iron are indicated, such as ammonio-citrate, effervescing carbonate, tartrate or dialyzed solution; after hæmorrhage, ferric chloride is occasionally well borne. In all cases it should be omitted from time to time in favor of an alkaline mixture containing rhubarb and taraxacum. When iron is not well borne manganese forms the most valuable substitute, either the dioxide, in doses of from two to ten grains, or the phosphate, in five grain doses. In neurotic women, with gastrodynia, the sulphate or valerianate of zinc is indicated. In cachexia, neurasthenia, and in constant gastrodynia in malarial subjects, arsenic in alkaline solution is specially useful; in the last condition it should be given with quinine. Where there is a definite syphilitic history, small doses of potassium iodide, with other remedies, often prove of great benefit. The dietary should be carefully supervised. Residence in a bracing climate is a powerful adjuvant.

The Danger of Fallacies in Deductions from the Study of Child Psychology.—The *Lancet* for July 21st in commenting upon an article by the well-known English alienist, Dr. Henry Mandsley, in the *Journal of Mental Science* for July, says that Dr. Mandsley referred to two methods of research lately in vogue and large with promise—viz., the systematic study of child psychology and the so-called psycho-physical research. As regards the former the *Lancet* continues:

"The results accumulated by child-study require to be interpreted with great caution. It is difficult for the adult to understand correctly and rightly to construe by the light of his ripe thought and feeling, his formed and conscious thought, that which is only forming and scarce conscious in the immature mind of the child. 'In the immature mind the word, like the underlying idea of feeling, is simple, single, without associations, almost detached, naked, so to speak, whereas in the mature mind it is involute, containing layers on layers of experience, having manifold associations which are roused into more or less conscious thrills, emotional or intellectual, by every use of it.' To strip off or abstract so much of the structure of his own mind as to reduce it to the simplicity of the child-mind, and then to use his so mutilated mind to observe and interpret, is a matter of exceeding difficulty. 'He would find it easier, I think,' says Dr. Mandsley, 'to walk the walk and talk the talk of his infant.' To give an illustration: When the child asks the astonished father, 'Daddy, why doesn't God kill the Devil?' he puts as simple, correct, and natural a question as he would do were he to ask, 'Why does not daddy kill the rat?' One question is not a whit more wonderful than the other. The child has been taught to picture God as a big, strong Being, living out of sight high up above, Who can do whatever He will, loving good deeds and good persons, angry with those who are naughty and do wrong—to picture Him mentally, in fact, as a kind of bigger and stronger father. And reasoning then from the particular to the particular, as incipient intelligence cannot choose but do, the child naturally wonders why God does not kill the Devil who is going about doing wrong and tempting to do wrong. The child's assertions are direct and simple, not trammeled as yet by modifying associations or vitiated by conventional errors and prejudices; therefore his utterance is sometimes singularly fresh, startling, and suggestive. Sentimental persons may detect 'intuitions' and 'trailing clouds of glory from afar' as they dote on children's innocent simplicities, but it is they, the enraptured gazers, who project them and read them into the child out of their own feelings, just as the fond mother watching the flicker of a smile across her sleeping baby's face projects a heavenly meaning into the purely reflex movement excited by a pleasant visceral stimulus. The real babe, as a matter of fact, is a selfish parasitic creature, with all its instincts converging towards the animal self, exacting tyrannically all the services which, happily for it, maternal devotion likes instinctively to give. Child psychology should note and watch the performances of children and interpret them by the light of heredity and human evolution."

Syphilis of the Intestine.—M. Lereboullet (*Progrès Médical,* July 7th) recently communicated to the Paris Academy of Medicine a case of syphilis of the intestine with cachexia and dysenteriform stools. While the idea of cancer appeared the most probable, the treatment by gray oil (a mercurial preparation) and iodide of potassium was tried, the patient having had syphilis. The improvement in eight days was remarkable and the cure was soon effected. M. Fournier said that he had seen more than a dozen such cases of intestinal syphilis. The real frequency of this affection was probably much greater, but in practice syphilitic enteropathies were liable to be misunderstood, presenting, as they did, in the majority of cases nothing distinctive. Syphilitic antecedents, the absence of other morbid causes, the inefficacy of therapeutic measures, the severity, and the coincidence of other manifestations of syphilis should, however, awaken suspicion. The rapid improvement under antisyphilitic treatment would demonstrate the nature of the complaint. In babies, the subjects of hereditary syphilis, M. Fournier had often cured rebellious diarrhœas by the administration of Van Swieten's solution. Intestinal syphilis, whether in the child or the adult, was remarkable for the liability to recurrence. Its oftentimes late appearance was also a remarkable feature, M. Fournier having seen it first manifest itself twenty, thirty, or even forty years after the chancre. For treatment he employed mercury, it alone having a radical action as a safeguard for the future. Iodide of potassium was an excellent effacer; mercury alone was a true cure. The mercury should be administered by external measures, inunctions or subcutaneous injections, so as not to injuriously affect the digestive tract.

The Septic Diseases of the Puerperium.—Dr. Thomas G. Stevens (*Treatment,* July) gives the following classification of the pathological anatomy of puerperal septicæmia:

- A. Infection of the Vulva and Perinæum.
  - (a) Catarrhal vulvitis.
  - (b) Pseudo-diphtheritic vulvitis.
- B. Infection of the Vagina.
  - (a) Catarrhal vaginitis.
  - (b) Pseudo-diphtheritic vaginitis.
- C. Infection of Uterus.
  - (a) Endometritis.
    - I. Metritis, $\left\{\begin{array}{l}\text{simple,}\\ \text{dissecting,}\end{array}\right\}$ cellulitis in
      - *a.* Broad ligament.
      - *b.* Utero-sacral ligament.
    - II. Salpingitis, pelvic peritonitis.
      - *a.* Periovaritis.
      - *b.* Parenchymatous ovaritis.
    - III. General septicæmia.
      - *a.* Lymphatic:
        - 1. Peritonitis, local and general.
        - 2. Ovarian abscess.
        - 3. Pleurisy.
        - 4. Pericarditis.
      - *b.* Thrombo-phlebitic:
        - 1. Pneumonia.
        - 2. Pleurisy.
        - 3. Ulcerative endocarditis.
        - 4. Diffuse cellulitis of skin.
        - 5. Meningitis.
        - 6. Cerebral abscess.
        - 7. Arthritis.
        - 8. Infarction of liver.
        - 9. Infarction of spleen.
        - 10. Infarction of kidneys.
        - 11. Phlegmasia alba dolens.
  - (b) Acutest septicæmia.

The Antiseptic and Eliminative Treatment of Typhoid Fever.—Dr. T. Virgil Hubbard (*Virginia Medical Semi-monthly,* August 10th), as the result of a year's continued experience, restates the treatment which he recommended in a paper read before the Georgia Medical Association one year ago. When called to a case of typhoid fever, he usually begins by giving the patient a capsule of calomel, $\frac{1}{2}$ grain; guaiacol carbonate, 2 grains; podophyllin, $\frac{1}{20}$ to $\frac{1}{40}$ grain, every two hours for from twenty-four to forty-eight hours, depending on the condition of the bowels. He continues this until he has secured four or five intestinal evacuations for two successive days, and then leaves off the calomel and adds $\frac{1}{2}$ grain of menthol to the guaiacol and podophyllin. If, after discontinuing the calomel, there is any tendency (as there frequently is) for the bowels to become inactive, he administers a small dose of salts or Hunyadi water in the morning. He always endeavors to secure at least two or more evacuations daily, depending upon the temperature and the condition of the bowels. If, after four or five days of treatment, the temperature remains high, or rises after having remained stationary, he again resorts to the calomel as before for twenty-four hours or less, as necessary, and it invariably reduces the temperature and results in a general improvement in the patient's condition. He continues the administration of guaiacol and menthol throughout the course of the disease.

In addition to this, he frequently resorts to the administration of normal salt solution *per rectum*, and has been very much gratified with its results, especially in those cases in which the skin and kidneys failed to act well. It seems to him that in any toxæmia, normal saline solution would do good by diluting the poison in the blood and favoring its elimination by the skin and kidneys.

Dysmenorrhœa and its Treatment.—A very interesting and instructive discussion took place on this subject at a recent meeting of the Edinburgh Obstetrical Society. The following abstract is condensed from the report in the *British Medical Journal* for July 28th:

Dr. Haultain, in opening the discussion, defined dysmenorrhœa as "pain associated with and dependent upon menstruation of such severity as to interfere materially with the sufferer's performance of her usual duties." As a rule the pain was local and pelvic. Pain of the character defined was to be considered at all times pathological, and was usually due to local abnormal conditions. The causes of dysmenorrhœa were inflammatory and obstructive, alone or combined. The inflammatory variety embraced congestive and inflammatory conditions of the uterus and its appendages. The "obstructive" variety was necessarily confined to morbid states of the uterus alone. A rational explanation of the pain in the latter was that the blood which escaped from the capillaries of the uterine mucosa was impeded in its escape from the uterus. This might be by a temporary state of spasm, or by a permanent blocking of the uterine canal through flexions, new growths, or developmental stenosis. The obstructed flow naturally caused distension of the uterus from retention of blood, which might or might not coagulate in the uterine cavity, and which stimulated forcible contraction of the organ for its expulsion. As the result of uterine distension and contraction pain was complained of. [Compare the paroxysmal pain of those suffering from distended bladder in consequence of stricture, enlarged prostate, etc.] When the pain was inflammatory it was due to the vascularity which occurred before menstruation still further congesting the already inflamed tissues. The discomfort was necessarily diminished after the depletion which occurred during the flow. From a clinical standpoint dysmenorrhœa might be considered as of two main types—menstrual and premenstrual. Both might be present. When obstruction alone existed the pain occurred at the time of, or immediately before, the flow; while in the inflammatory variety the pain would be most pronounced during the period of congestion before the actual flow occurred. If the inflamed organs were only the appendages, the depletion caused by the flow occurring necessarily gave considerable relief; thus the so-called ovarian or tubal dysmenorrhœa was mainly premenstrual in its character. On the other hand, in uterine inflammation, such as endometritis, the pain, though premenstrual, might be continued through the period by the contractions of the tender uterus, or by the thickened and swollen diseased mucosa offering a block to the easy exit of the menstrual blood. In the same way congested or inflamed ovaries, with endometritis, gave rise to the combined types of premenstrual and menstrual dysmenorrhœa. The obstructive or menstrual variety greatly preponderated as the initial type in the proportion of quite ten to one. The primarily purely obstructive tended in due course to become associated with the premenstrual or inflammatory, the latter being a secondary result of the former—primary obstruction, secondary endometritis, and perhaps ovaritis. As to treatment: (1) Was it possible to cure or ameliorate the condition? If so, how? (2) Was it justifiable to adopt local treatment with the methods at our disposal? The former inquiry might be answered in the affirmative. The different causes of the symptom had to be inquired into, and action taken accordingly. Stenosis and flexions were the most common causes, congenital anteflexion with stenosis. To remedy this dilatation might be forcible or gradual. Dr. Haultain had found the use of the tent, or the forcible dilatation by bougies up to 15 French or 10 Hegar, most efficacious. In the majority of aggravated cases there was a coincident endometritis, which curettage with subsequent hot vaginal douching materially assisted in effecting a more rapid and permanent cure. Incision of the cervix was not so frequent, but it was of much value in establishing a permanent dilatation of the cervical canal. After incision the wound should be kept open for forty-eight hours by a strip of iodoform gauze. The treatment of the menstrual variety of dysmenorrhœa by means of drugs had, in Dr. Haultain's hands, been most discouraging, a result natural to expect if we assumed the cause to be a mechanical obstruction. This explanation of dysmenorrhœa, as shown by the beneficial effects derived from dilatation, he upheld as the only practical explanation of the cause of the pain. Drugs could only give a temporary alleviation of the symptoms. Unfortunately the medicinal treatment resolved itself into the exhibition of stimulants and anodynes, both objectionable from their deleterious effect on the general health and morals of the individual. The alcohol and morphine habit often dated from the comfort given by them during painful menstruation. In the inflammatory and congestive forms—particularly those due to ovarian causes—sedatives, such as bromides, gelsemium, camphor, and hydrastis found most favor, combined with hot applications, hip-baths, and counter-irritants. When primarily ovarian in origin such means were alone at our disposal. Primary ovarian mischief, however, was the exception. In discussing the justification of the local treatment of dysmenorrhœa, patients had to be divided into married and unmarried. With the former, local examination—and, if need be, treatment—should in all cases be carried out. The unmarried had to be classed in two groups: (1) Those who required by their own exertions to maintain themselves, and (2) those who did not require to work. Those in the first group could not afford to be laid up a day or two monthly; relief must be obtained, sentiment could not be considered. The second group formed the main theme for discussion. Were they, for merely sentimental reasons, to allow these young women to suffer if they desired to be cured? His line of treatment was to examine them locally under an anæsthetic, and at the same time be prepared, should dilatation, uterine reposition, or curettage be indicated, to perform the necessary manipulation there and then. Among the many sentimental objections, the most common was that local manipulation directed attention to the sexual organs. Did not being *hors de combat* every month during the sexual function exercise an even more potent influence in the same direction? In the majority of cases menstrual pain tended to become aggravated and to set up ovaritis, which was most intractable and often incurable. The great bulk of primarily sterile women were the subjects of dysmenorrhœa, and in those in whom the sterility had been cured it had only been when local treatment had been adopted and the dysmenorrhœa removed.

Professor Kynoch urged that the pain was indicative of disease, uterine, extrauterine, or both. Constitutional treatment ought first to be given a prolonged trial in young girls, and many cases were thus cured. If they failed, then local measures should be resorted to. Rapid dilatation, in his experience, had not been satisfactory. He now left in a tupelo tent for twelve hours, replacing it again for two subsequent days, and plugging the uterus meantime with sterilized gauze. The cases associated with extrauterine affections, most frequent in married women who had been pregnant, and generally dependent on pelvic adhesions and ovaritis, were much helped by the continued use of the hot douche given in an effective way. Where the returning hot water caused inconvenience, Stratz's instrument could be used. If this failed, opening the abdomen by the vaginal route might be necessary. Removal of the ovaries and abdominal section he would reserve for cases of defective development of the uterus, associated with atresic conditions and painful monthly periods in the absence of menstruation.

Dr. Church thought prevention was better than cure. Treatment ought to begin at the very onset of menstruation in care and avoidance of whatever might end in dysmenorrhœa. The present system of education among the cultured and educated classes made too severe a strain on the nervous system. Greater attention should be paid to rest for a day or two during menstruation, or complete rest in bed if there were pain. Local inflammation might arise from any lowered state of the health; it might be autotoxic (from intestinal or other mucous surface) in origin, might follow the exanthemata, or might be due to rheumatism. The rheumatic process might lead to anteflexion and stricture, causing pain and spasm. When all due precautions had been taken to avert trouble, and there was yet painful menstruation, exercise on a cycle or on horseback between periods was sometimes helpful.

Dr. Foulis agreed with Dr. Haultain in his advocacy of local measures to alleviate the pain, if he were sure that the uterine condition produced it. Careful and prolonged constitutional treatment cured many; marriage cured no end of patients. Dilatation of a stenosed os gave relief in some cases. He differed from Dr. Haultain in the matter of drugs. He had seen wonderfully satisfactory results from their administration—for example, potassium iodide. No doubt mere anodynes or other strong nerve drugs were a danger. Still greater was the danger when alcohol was the anodyne. The unnecessary removal of ovaries during the last twenty years was something to be deplored. Premature local examination was to be strongly deprecated.

Dr. Connell thought that the introduction of the bicycle had had more to do with the removal of painful menstruation than any other measure of late years. As to drugs, he liked sodium salicylate, if only for its antispasmodic properties. That and potassium iodide he would certainly try before cannabis indica.

Dr. Kerr said that for practical purposes the dysmenorrhœas might be divided into three groups—(1) Those in which the disease or lesion was quite apparent, (2) those where one was in doubt as to whether the lesion could account for the excess of pain, (3) those cases where, as far as one could find, there was absolutely no lesion. Under the second group he had found three classes of cases: first, an abnormally small uterus, 3 out of 60 cases; secondly, stenosis of the cervix, 6 out of 60 cases; and pathological conditions of anteflexion accounted for 16 out of 60. Under his third group he had only 3 cases out of 60 where there was no lesion, though in 1 case there was an abnormally nervous temperament, and in another great anæmia. Probably temperament in these last two cases was a strong factor in the pain production. He approved of dilatation of the cervix by the gradual method, but the dilatation required to be repeated. Electricity, too, he had found beneficial. Antipyrine and phenacetine were the only drugs he had found of any use. The bicycle improved the general tone of the individual, and made her less subject to the discomfort.

Dr. Freeland Barbour said that there were two factors to guide one in estimating the significance of the pains: (1) The stimulus to the peripheral end of the nerve, and (2) the irritability of the sensory nerve centres. Dr. Weir Mitchell had done gynæcology the largest benefit. Those who followed his line would greatly help their patients.

Dr. James Ritchie did not believe that flexion *per se* was a frequent cause of dysmenorrhœa. He thought something must be superadded to flexion, and they had to treat that something, in a large number of cases an inflammation. Even where the ovaries were tender, the uterus enlarged, and menorrhagia present, he believed in patient and prolonged treatment by douching and the use of ichthyol. Anæmia and rheumatism were causes of dysmenorrhœa, and when these were fitly treated the symptom disappeared. Potassium iodide and salophen he had found helpful. He had not found so much benefit from dilatation of the os and cervix.

Dr. Holmes (Chicago) said that in treatment every case was a law to itself. Dilatation he thought should seldom be used. The bicycle had diminished gynæcological practice in the United States. In the congestive form prolonged douching was very helpful.

Dr. Ballantyne made three generalizations: (1) We must treat the dysmenorrhœa, and go on treating it; (2) the more correctly the physician diagnosed the case, the more certainly he marched to success in treatment; (3) the Higginson syringe was one of the best methods for treating every case.

The President said that the majority of the alcoholic cases they had to deal with in daily practice arose through young women being treated by their mothers with alcohol during their menstrual periods. Local examination should be deferred till one was definitely certain that it was absolutely necessary. After that it was the worst possible practice to defer it. He did not believe that any damage could be done to a girl by an examination under an anæsthetic at all comparable to the constant dread and anxiety with which she looked forward to these monthly recurring attacks.

Book Notices.

BOOKS, ETC., RECEIVED.

Surgery: Its Theory and Practice. By William Johnson Walsham, F. R. C. S. Eng.; M. B. and C. M. Aberd., Surgeon and Lecturer on Surgery, St. Bartholomew's Hospital, etc. With 483 Illustrations, including 16 Skiagram Plates. Seventh Edition. Philadelphia: P. Blakiston's Son & Co., 1900. Pp. ix-953.

Lessons on the Anatomy, Physiology, and Hygiene of Infancy and Childhood for Junior Students. Consisting of Extracts from Lectures given at Rush Medical College. With 71 Original Illustrations. By Alfred C. Cotton, A. M., M. D. Chicago: Chicago Medical Book Company, 1900. Pp. 174. [Price, $1.50.]

Original Contributions Concerning the Glandular Structures Appertaining to the Human Eye and its Appendages. By Adolf Alt, M. D., Professor of Ophthalmology in Beaumont Hospital Medical College, St. Louis. St. Louis: *American Journal of Ophthalmology,* 1900. Pp. 23.

Medicine as a Business Proposition. By G. Frank Lydston, M. D. Chicago: The Riverton Press, 1900. Pp. 32.

The Nature of some Epithelial Growths, and Their Treatment with Formalin. By Martin F. Engman, M. D., of St. Louis. (Reprinted from the *Medical Review.*)

Should Military Medical Science be Taught in our Medical Colleges? By Edmund Cone Brush, M. D., of Zanesville, Ohio. (Reprinted from the *Cincinnati Lancet-Clinic.*)

Neurasthenia: Some Points in its Pathology and Treatment. By G. W. McCaskey, M. D., of Fort Wayne, Ind. (Reprinted from the *Journal of the American Medical Association.*)

Nephritis: Its Frequency and the Importance of its Early Diagnosis. By J. A. Humphrey, M. D., of Henderson, Ky. (Reprinted from the *Louisville Monthly Journal of Medicine and Surgery.*)

Miscellany.

An Additional Building for the Medical College in Kansas City.—Work is now in progress on an additional building for the University Medical College in Kansas City, Mo. The addition will be four stories high, with a basement. The first story will be devoted to an amphitheatre with a seating capacity of nearly 250. The present building, having been constructed with a view to enlargement, lends itself admirably to the new plans. The old lecture amphitheatre will still be used, thus giving two lecture rooms. Last year there were 316 matriculates at the institution, and the graduating class numbered 114. When the new building is complete the college will be able to accommodate 500 students.

A New Hospital in West Superior, Wis., to accommodate some forty or fifty patients, will be opened shortly.

The Muhlenberg Hospital.—Dr. George W. Endicott, who has been surgeon to the Muhlenberg Hospital, of Plainfield, N. J., from the time the institution was first opened down to the present time, has resigned and Dr. W. H. Murray has been appointed to fill the vacancy. Dr. Murray is the president of the Plainfield Board of Health, and is also a member of the State Board of Health.

Unjustifiable Dogmatism in Medicine. — Dr. T. Clark Miller (*Virginia Medical Semi-monthly,* August 10th) in an address on the Submergence of Individual Judgment, states the case very forcibly as follows:

"A few months ago a very eminent American physician claimed as the result of 'actual experience' 'that immunity, after exposure, may be conferred for at least ten days, by a small dose of serum, provided it is given twenty-four hours previously to actual infection.' He goes on to say that 'A physician who fails to promptly immunize the members of a family in which diphtheria breaks out neglects to do his duty by those whose safety lies in his hands.' This unprofessional pronouncement was reproduced in a good many medical journals all over the country, and probably contributed to the damnation of a good many physicians who were fully as worthy of respect as the dictator himself. I believe that that physician had a right to think what he said, provided the evidence was conclusive, as he saw it. I am not sure that he had a right to sow such a pronouncement broadcast. If he had, then none of us has a right to think differently or at least to act otherwise than he directs. He has foreordained our condemnation if we do."

The St. Louis Medical Review is giving a very admirable series of abstracts of papers read at the Thirteenth International Medical Congress at Paris. The work is of such a quality as undoubtedly to add materially to the prestige of that journal.

The Third Pan-American Medical Congress will be held in Havana, Cuba, on the 26th, 27th, 28th, and 29th of December, 1900. Communications should be addressed to Dr. Tomás V. Coronado, secretary of the executive committee, Prado, 105, Havana, Cuba.

Anti-quack Crusade in Missouri.—Dr. S. C. James, the Kansas City member of the State Board of Health, has begun the campaign against quacks that was decided on at the last meeting of the board. Dr. James says that this is but the beginning of a quack crusade that will be pushed vigorously all over the State. St. Louis, probably, will be the next point of active work in weeding out so-called doctors who practise without certificates. Dr. James has asked the assistance of the local Board of Health, Prosecuting Attorney E. E. Yates and the United States Post Office Department in the movement. According to Dr. James there are more than fifty physicians who are practising in Kansas City who have no certificate from the State Board of Health.

Indiana Health Bulletin.—The Indiana Board of Health bulletin for July states that the following diseases increased in area of prevalence in July over the preceding month: Diarrhœa, cholera infantum, cholera morbus, dysentery, inflammation of bowels, typhoid fever, whooping cough, intermittent fever and pleuritis. The diseases which decreased in area of prevalence were rheumatism, measles, scarlet fever, pneumonia and influenza. The diseases which neither increased nor diminished were diphtheria, cerebro-spinal meningitis, puerperal fever and erysipelas. There were twenty-five cases of small-pox reported, with two deaths. One small-pox death occurred in Lawrence county and one in Madison county. Hog cholera was prevalent in Shelby, Delaware and Whitley counties. The intestinal diseases increased almost 30 per cent. over June, as they always increase with hot weather.

The Thirteenth International Medical Congress.—The series of scientific congresses which have been held at Paris since the opening of the exposition have covered a wide range of subjects and have been almost uniformly successful. The group having to do with medicine embraced several special congresses, such as those of the medical press and of professional medicine, in addition to the various sectional meetings which formed a portion of the programme of the Thirteenth International Medical Congress, held in Paris from August 2d to 9th, inclusive.

Prior to the formal opening of the congress reunions of the delegates from the various countries represented at the congress were held in the basement of the buildings of the Paris Faculty of Medicine, a separate room being assigned as headquarters for the representatives of each country. The congress was divided into the following sections and sub-divisions of sections: Section on Biological Sciences—(a) Descriptive Anatomy, (b) Comparative Anatomy, (c) Histology and Embryology, (d) Physiology, (e) Biological Chemistry and Physics. Section on the Medical Sciences—(a) General Pathology, (b) Bacteriology, (c) Pathological Anatomy, (d) Internal Pathology, (e) Pædiatrics, (f) Therapeutics, Pharmacology and Materia Medica, (g) Neurology, (h) Psychiatrics, (i) Dermatology. Section on the Surgical Sciences—(a) General Surgery, (b) Surgery of Children, (c) Urinary Surgery, (d) Ophthalmology, (e) Laryngology, (f) Otology, (g) Stomatology. Section on Obstetrics and Gynæcology, (a) Obstetrics, (b) Gynæcology. Section on Public Medicine—(a) Legal Medicine, (b) Military Medicine and Surgery, (c) Naval Medicine, (d) Colonial Medicine.

The first general session of the congress was held in the fête hall of the exposition, and the second and third general sessions were held in the large amphitheatre of the Sorbonne. The meeting places for the several sections were selected from among the lecture halls of the various institutions of learning in Paris.

A mere list of the papers read would fill several pages of this journal, while among the authors represented were many of the leading authorities of the medical world. Below is given the titles of a few of the papers presented by authors known in the United States: "The Soldier's Ration, its Use and Abuse in the Tropics," by Major Louis L. Seaman, U. S. A.; "Action of Digitalis and its Active Principles," by Dr. Lander Brunton, London; "The Cure of Consumption," by Dr. Helen Densmore, New York; "The Modern Treatment of Yellow Fever," by Dr. Fernandez de Ibarra, New York; "The Virile or Bulbo-cavernous Reflex Diagnostically and Medico-legally Considered, with a New Method of Eliciting the Same and New Suggestions in Practice, in Connection Therewith," by Dr. C. H. Hughes, St. Louis; "The Technique in the Interscapulo-thoracic Amputation," by Dr. Robert G. Le Conte, Philadelphia; "Report of a Case of Ligation of the Abdominal Aorta in which the Patient Lived for Forty-eight Days," by Dr. Keen, Philadelphia; "Therapeutic Indications in Appendicitis" (report), by Dr. F. Treves, F. R. C. S., London; "Circumdental Diseases, with Special Mention of Erythrosis of the Gums, its Causes, Different Aspects and Therapeutics," by Dr. Nash, New York; "Remarks on Benign Tumors," by Dr. Knight, Cincinnati; "The Pathology and Treatment of Tuberculosis of the Cervix Uteri," by Dr. H. D. Beyea, Philadelphia.

Owing to the assassination of the King of Italy, the social features of the congress were much abridged. The president of the congress, M. Lannelongue, received the delegates and the presidents of the several sections on Friday evening, August 3d. A soiree was given to the members and delegates in the palace of the Senate and in the Luxembourg Gardens on Monday, August 6th, at which Mounet Sully, of the Comédie Francaise, and Madame Sarah Bernhardt recited poems and M. Renaud and Madame Litvinne, of the Opera, and M. Fugère, of the Opéra Comique, sang. The presidents of the several sections all gave either dinners or receptions or both and numerous excursions were arranged for the entertainment of the members.

The most interesting social feature of the meeting was the dinner given to Lord Lister on August 1st by "Scientia," a scientific society of Paris. The dinner was given in the exposition grounds, about fifty guests being present. More than six thousand members registered during the sessions of the congress, of whom 420 were from the United States and 226 from Great Britain.

An American Defender of the South African Hospitals.—According to the *New York Times* for August 18th, E. C. Westervelt, of Paterson, N. J., who has been a volunteer in the British army in South Africa, says that since he left Africa he has heard a good deal about the soldiers in the hospitals there being badly treated, and would like to say that there is no truth in it. He was laid up in a hospital for a long period, and he received the best of treatment all the time he was there.

A Reputed New Sign of Alcoholism.—The *Revue Médicale de Normandie* for July 25th, citing *Médecine moderne*, says that Dr. Quinquad of the *hôpital* St. Louis claims to have discovered a new sign of alcoholism which is thus described: Direct the subject to spread open his fingers, straighten them and press them strongly and perpendicularly against the palm of your hand. After a few seconds you will feel small shocks as though the bones of each finger were violently repulsed from one another and struck your palm. This sign is called the Finger Shock Sensation. "The sign exists," says the *Revue*, "but its specificity seems doubtful. It has been found in persons who have undoubtedly no special predilection for the bottle."

International Congress of the Medical Press.—This congress was organized under the auspices of the French Medical Press Association with a view to the formation of an international medical press association. The inaugural ceremonies of the congress were held in the Press Pavilion of the Exposition.

Some three hundred persons, including many ladies, were in attendance at the first session, which was formally opened by the Minister of Commerce at half past two in the afternoon of July 26th. Professor Virchow of Berlin was present, and was the lion of the occasion, being the recipient of many honors as the doyen of the medical press. The proceedings opened with an address by Professor Cornil, who paid a glowing tribute to Virchow's Archives and to the work of its founder in medical journalism. In response Professor Virchow made a brief address, which was received with great enthusiasm.

At the conclusion of the preliminary addresses the following officers were elected: President, Professor Cornil; vice presidents, M. Richet and M. Lucas-Championière; secretary-general, Dr. Blondel, and treasurer, Dr. Cezilly. The following honorary officers were also elected: Honorary presidents, Drs. Virchow, of Berlin; Posner, of Berlin; Fraenkel, of Vienna; Spatz, of Munich; Love, of St. Louis; Matthews, of Louisville; Jonnesco, of Bucharest; Jolin, of Stockholm; Hansson, of Christiania; Valledor, of Madrid; Bacelli, of Rome; Bossi, of Genoa; Ceccherelli, of Parma; Gallet, of Brussels; Podwyssowtski, of Kiev; Ehlers, of Copenhagen; Tigerstedt, of Stockholm, and Sprigg, of London. Honorary vice presidents: Drs. Landouzy, Bourneville and De Maurans, of Paris. The following secretaries were also elected: English, Drs. Smith and Fassett; Italian, Drs. André Ceccherelli and Laudi; French, Drs. Romme and Regnier; German, Drs. Pick and Shober.

The second and third days' sessions were held in the amphitheatre of the Practical School of the Faculty of Medicine. The official report quaintly says, "In the hall floated an exquisite cadaveric odor which, considering the circumstances, was not altogether inappropriate."

The first session on the second day was opened by a series of addresses from the official delegates from foreign countries, after which the reading of papers was begun. During the second and third days papers on the following subjects were presented and the majority of them discussed at some length: Modern Technique of Indexing in Medical and Scientific Reviews, by Marcel Baudoin; Laudatory Notes in Medical Journalism (La Publicité dans les Journeaux medicaux), by M. Archambaud, Paris; Free Medical Journals, by J. V. LaBorde and R. Romme, Paris; Exchanges, by M. Chervin, Paris; Uniformity of Terminology in Scientific Classification, by M. de Maurans, Paris; Photography and Cinematography in the Medical Press, by M. Doyen and M. Aragon, Paris; The Use of Decimal Classification in the Periodical Press, by G. Richet, Paris; Relations Between the Medical and the Political Press, by Prof. Bossi, Genoa; The French Law Relating to Literary and Artistic Property, by M. Pouillet and M. G. Rochet, attorneys, and M. de Maurans, editor of *la Semaine médicale*, Paris; The Ownership of Ideas and of Forms of Ideas in Scientific Journalism, by M. Baudoin, Paris; The Right of Reproduction of Engravings, by M. F. Alcan, Paris; The Right of Reply in the Scientific Press, by M. Jayle and M. Pistre; Professional Solidarity in the Medical Press, by J. P. Noir; The Abuse of the Title Doctor, by G. Levy.

Sketches of the medical press in their respective countries were presented as follows: Greece, by Dr. Foustanos; Cuba, by Dr. Fernandez; Belgium, by Dr. Gilson; America, by Dr. Fassett; London, by Dr. Sprigg, and Germany, by Dr. Spatz.

The members and delegates were the recipients of many courtesies at the hands of the Parisians, the most notable entertainment being a reception by the President of the Congress, Dr. Cornil.

Ordered to China.—Major John Van R. Hoff has been ordered to proceed without delay to Taku, China, and to report to General Chaffee for assignment to duty as chief surgeon on his staff. Major Van Hoff is one of the best known and most voluminous writers on military medicine in the United States. His papers on the organization of military hospitals, presented at the Pan-American Medical Congress, formed a most important contribution to the proceedings of that body.

Major Philip F. Harvey, Surgeon, San Francisco, has been ordered to take the first available transport for Nagasaki, Japan, for the purpose of establishing a base hospital at that place.

In order to provide a sufficient number of surgeons for the troops now serving in China, the Surgeon-General has recently ordered a number of acting assistant surgeons from San Francisco to Taku. They are as follows: Lieuts. John D. Brooks, L. d'Orville Chabut, William J. Condon, Henry A. Cossitt, U. S. Grant Deaton, Wallace De Witt, A. Bruce Henderson, William V. Kellogg, Howard D. Lewis, James I. Mabee, Robert C. Macy, Edwin W. Patterson, Louis J. Perkins, Willard D. Preston, James C. Rutledge, and Calvin D. Snyder. With each of the battalions sent to China the Surgeon-General has detailed eight men of the hospital corps.

The Hours at which Death Commonly Occurs.—The *New York Times* for August 17th quotes the following from the London *Express:* The observations of various scientists have led them to slightly different conclusions in this matter. For instance, a Scottish professor, who has noted 15,000 cases, finds that 6 a. m. is the hour at which most people in the British Isles shuffle off this mortal coil.

In sunny Italy those who die natural deaths usually pass away in the hours of the afternoon—rather a remarkable fact, this, when one considers the power of the sun in that climate; for most scientists agree that our vitality is at the highest point at midday and lowest near midnight.

In the Parisian hospitals doctors have been sorely puzzled, being quite unable to strike any satisfactory average in the matter; but this is not surprising when it is considered that most deaths occur in hospitals from unnatural causes, such as accidents, or exhaustion following on dangerous operations. One observation has been made which is rather interesting, however, namely, that very few expire between the hours of 7 and 11 p. m. One French scientist has come to the conclusion that it depends upon the sexes, men usually dying in France between 5 and 7 a. m., and women in the evening hours.

A German professor, with characteristic thoroughness, took notes of no fewer than 57,000 deaths before classifying his statistics; and in the result he also found that 5 to 7 a. m. was the most common hour, though he made no distinction in the matter of sex.

Thus it will be seen that climate has much to do with the hour of death; the countries of Europe being marked by difference in the times at which their inhabitants expire.

The Limitations to First Aid in Railway Accidents, etc.—Dr. H. L. Getz (*Railway Surgeon*, July 24th), in a paper on First Aid (Limited) says that: The environments in which accidents occur, especially on railroads, are invariably such as make it impossible for even professional skill to do thoroughly clean work in the same time that would be required to transfer the patient, and still do the work conveniently, comfortably, and properly, under suitable surroundings. Such being the case it is easily understood why lay first aid, by whomsoever it may be rendered, should make no attempt at cleaning wounds, either with instruments, hands or solutions of any kind.

No attempt should be made at reducing compound fractures or the surgical dressing of the simplest of wounds of any description whatsoever. The careful and rigid observance of such a course will spare the patients unnecessary suffering, mental and physical, will insure a more rapid, satisfactory, and, in many instances, a less painful recovery, and last, but not least, will here and there be the means of avoiding extensive and serious infection, local and general, thus avoiding the occasional necessity for amputation of some member of the body, and even sparing a life which would otherwise surely occasionally be lost.

The application of other than the simple principles and practices of first aid is liable to entail retarded recovery, which means unnecessary expense to the railroad or other employer. Should a hand, foot, arm or leg, or a life be lost through an attempt at too elaborate first aid, especially where the company or employer is in any way to blame for the cause of the accident, the additional claim for recovery of damages would be quite an item over and above what might be expected from the effects of the original injury.

Camp Fevers and Typhoid Fever.—Dr. Filipo Rho (*Journal of Tropical Medicine,* July) draws a parallel between the fevers studied by the Italians during the Italian occupation of Massowha and those studied by the Americans during the Spanish war. Although between 1884 and 1894 the resources for studying typhoid infection were not equal to what they are now, the conclusions arrived at were identical with, and corroborative of, those more recently drawn by the Americans. The author says that the attention of the medical men at Massowha was at once drawn to the extraordinary number of cases of fevers which broke out in extensive epidemics, especially in the less dry and less torrid season. These fevers declared themselves suddenly, mostly without shiverings, and the symptoms thereof were: pains in the forehead, loins, and eyes, an exceedingly foul tongue, but never dry or cracked; loss of appetite and constipation in most cases: the skin either dry or perspiring, according to the temperature, which hovered between 38° and 40° C. (100.4° to 104° F.) The fevers of some duration went down daily about one degree or little more, either in the morning or in the afternoon, but they never showed an intermission. In most cases the patients were affected, sometimes at the beginning, sometimes in the course of the malady, by a measly rash about the neck, chest, and back, and on the extensor surface of the limbs. Rarely any diarrhœa, and then always moderate, with a slight splenic enlargement in cases where the fever was protracted beyond a week; no other localized disorder. A slow convalescence, accompanied by an exhaustion quite disproportionate to the brevity of the malady.

In duration they presented the most varied features. Between very short ephemeral fevers lasting twenty-four hours, and such as protracted themselves to three weeks and more, all the intervening gradations were noticeable. Most of them were of brief duration, and the patients got over them in about seven days. Very seldom did they last two or three weeks or more, assuming a decided look of typhoid fever, but sometimes, in fresh epidemic outbreaks of similar endemic fevers, typical cases of the typhoid fever were more frequent and more easily recognizable by the clinical and anatomo-pathological characters.

Some of these fevers which, contrariwise, were marked by constipation and few or no abdominal symptoms, took a long and indefinite run, entirely resembling the Mediterranean or Malta fever, and were generally cured by the patient returning to the native country.

It certainly seemed that finding in a tropical land fevers of a continuous remittent type, should strengthen the opinion of many that remitting fevers of a malarial nature were in question. At first the author himself thought so.

But Pasquale's careful examinations of the blood proved that the hæmatozoon of Laveran was not to be found in those febricitant patients; besides, the geological and topographical conditions of Massowha—which is situated on a small madreporic island—were contrary to the development of the malaria, as there were no marshes, either great or small, in which the *anopheles* or malaria mosquito prospered.

The author thinks that there can be no further doubt that many of the fevers, as well in tropical as temperate climes, which are being attributed to various causes and are called climatic, must be ascribed to typhoid infection.

[Mr. Watson Cheyne, however, in his evidence before the South African Hospitals Commission (*British Medical Journal,* August 4th), recently said that "There was a point which he thought the medical members of the commission might consider, and that was how far this epidemic was one of typhoid fever. The great majority of cases recovered in ten days or a fortnight, and there were other characteristics which made him think it was not typhoid. As soon as Bloemfontein was left there were hardly any cases, but at Kroonstadt it broke out again. The great bulk of the cases occurred about ten days after Paardeberg, but he thought a great deal of camp fever had been mixed up with typhoid."]

The Rarity of Caries in the Teeth of Hindus.—The *British Medical Journal* for August 4th, commenting on a paper by Dr. Egbert in the *British Journal of Dental Science,* says that the Indian people are remarkably exempt from caries, and do not often lose their teeth from this cause. There can be little doubt that this immunity is largely due to the fact that careful and regular cleaning of the teeth is a universal habit in India. It is strictly observed, because it is laid down as an important part of religious ritual. Very exact rules for its performance are given in the great book of Brahmin ritual, called *Nitia-Karma.* To clean his teeth the Hindu uses a small twig, one end of which he softens out into the form of a painter's brush. Squatting on his heels, and always facing either east or north, he scrubs all his teeth well with this brush, after which he rinses his mouth out with fresh water. There is, indeed, much in the personal habits of the Indian races which might with advantage be imitated by Western peoples. All Hindus, for instance, strictly observe the custom of washing with water after answering a call of Nature, and the European habit of using paper is looked upon by them as an utter abomination, of which they never speak except with horror. They object just as strongly, also, to our use of a handkerchief which is afterwards put in the pocket. The general neglect of the teeth in this country is certainly deplorable. Even among the richer classes it is quite uncommon to meet with people who make a regular practice of cleaning the teeth after each meal—a most desirable habit on hygienic grounds—and large numbers of the lower orders never use a tooth-brush at all. The vegetable nature of the Hindu's food probably has its influence in rendering him less prone to caries than the meat eater, but there can be no doubt that he owes immunity from much pain and ill-health to the salutary habit which his religion has wisely enjoined.

THE NEW YORK MEDICAL JOURNAL, SEPTEMBER 1, 1900.

Original Communications.

FIBROID TUMORS OF THE UTERUS COMPLICATING PREGNANCY.

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FIBROID tumors of the uterus are essentially incident to the menstrual period of woman's life, and occur most frequently at the period when reproductive activity is at its acme. It is in consequence of this fact that, although these neoplasms occur by preference in sterile women, pregnancy associated with uterine fibromyomata is not infrequent. Indeed, this associated condition is so common in both obstetrical and gynæcological practice that its consideration must needs have a claim upon every practitioner in these departments of medicine. In many cases operative intervention may not be required, yet in all cases pregnancy is made more distressing and labor far more perilous because of the presence of fibroid tumors of the uterus.

The great variety in the density, form, and location of these tumors, renders the management of pregnancy so complicated, exceptionally difficult and responsible.

In the submucous variety of fibroid tumors the uterine mucosa is so altered that pregnancy rarely occurs. Sterility in these cases is the rule, and if conception takes place abortion will soon follow. Small tumors of the subserous variety do not, as a rule, seriously disturb the normal course of pregnancy and parturition. Large uterine fibromyomata are almost invariably interstitial, and as they increase in dimensions assume also subperitoneal relations. Indeed it is a very common observation to find the three varieties of the usual classification (Submucous, interstitial, and subserous) in a single specimen. The site of development also has much to do with the disturbance of normal pregnancy occasioned by an uterine fibroma. When the tumor is located in the cervix or lower segment of the uterus, pressure symptoms will appear earlier and be more acute than if it was so located as to rise readily above the pelvic brim. Fibroid tumors vary in density from the rock-like resistance of some nodular tumors undergoing calcareous changes to the soft, fluctuating, œdematous myofibroma. Such histological characteristics will materially modify the progress of pregnancy and labor.

The natural history of fibroid uterine tumors embraces numerous accidents and various intrinsic changes. These neoplasms often undergo necrotic changes from pressure, followed by suppuration and general sepsis. They are conspicuously prone to degeneration, which often extends to the adjacent uterine wall. Malignant changes are not uncommon, and the coexistence of suppurative inflammation in the uterine appendages is a very familiar observation in the operative treatment of these growths. When associated with pregnancy, there is a marked and constant increase of the blood-supply with a rapid growth of the tumor, corresponding to the rapid development of the uterus itself under the stimulus of pregnancy. It will be apparent that interstitial tumors assume the greatest activity during this process, being in the uterine parietes and, as it were, a part of the uterus.

The dangers incident to the condition under consideration arise from several distinct pathological processes. The very bulk of the tumor with associated pregnancy may produce such pressure as to necessitate operative intervention. Changes in the tumor or uterine annexa, as already indicated, may beget peritonitis and demand radical operative treatment. The alteration of normal conditions produced by the tumor predisposes to vicious insertion of the placenta and to malpresentations of the fœtus. Degenerative changes may so weaken the uterine wall as to facilitate rupture of the uterus, an accident rendered doubly liable by the presence of the tumor as an obstruction. On account of imperfect uterine contraction resulting from the interference of the tumor, hæmorrhage during and immediately following labor is a serious and frequent danger encountered in these cases. Such complications, while intrinsically dangerous, necessitate intrauterine manipulation and instrumentation, which are fraught with the ever-present peril of septic infection.

In order that the reader may more thoroughly appreciate the extent and reality of the dangers involved in this condition, it may be pertinent to refer to some statistical results as collected by Gusserow:

Of 228 cases of labor complicated by fibroids, collected by Gusserow, more than one-half of the mothers and two-thirds of the children died. The assumption that many of these deaths may have been due to meddlesome interference on the part of the obstetrician is contradicted by Gusserow's carefully compiled tables. Among 147 cases of labor collected by him, 78 mothers died. Of the 61 mothers requiring manual or instrumental aid 33 died. The remaining 45 deaths were therefore among the 86 cases not interfered with.

Of course these results would be very materially improved under observance of the improved modern obstetrical technique, but these observations of Gusserow will suffice to show approximately at least the dangers to both maternal and fœtal life in cases of pregnancy complicated by uterine fibromyomata.

The diagnosis of the coexistence of pregnancy and fibroid tumors is rendered exceptionally difficult by the fact that the differentiation of these two conditions is a problem constantly presented for solution. Uterine fibromata often partake of the form and contour of the gravid uterus, and so accurately simulate pregnancy in general pressure effects as to make differential diagnosis most difficult. Vander Veer, of Albany, N. Y., has tabulated with great care seventy cases in which pregnancy existed as a complication and was unsuspected

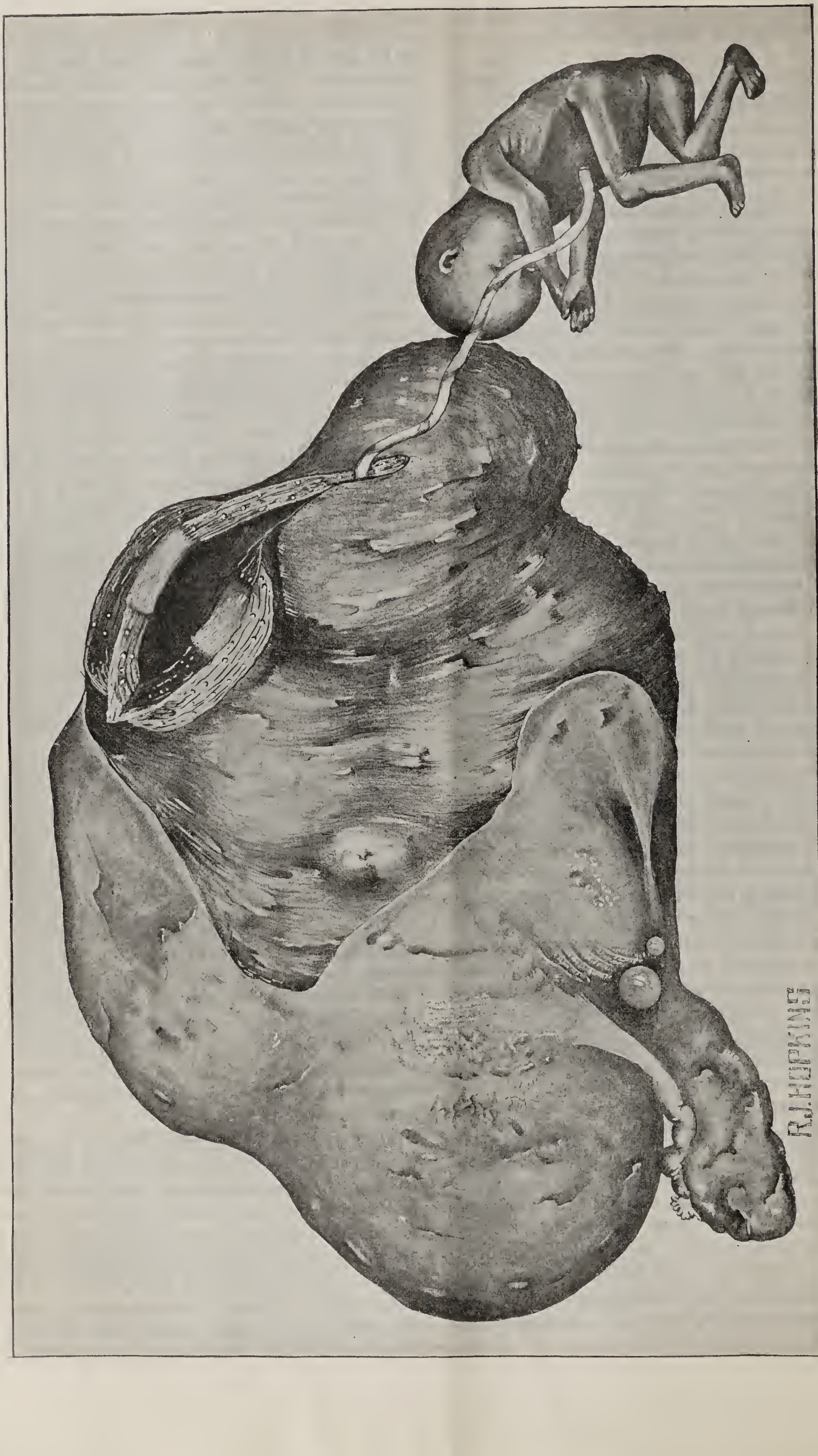

Fig. 1.—Lateral view of the tumor, the fœtus removed after incision into the uterine cavity.

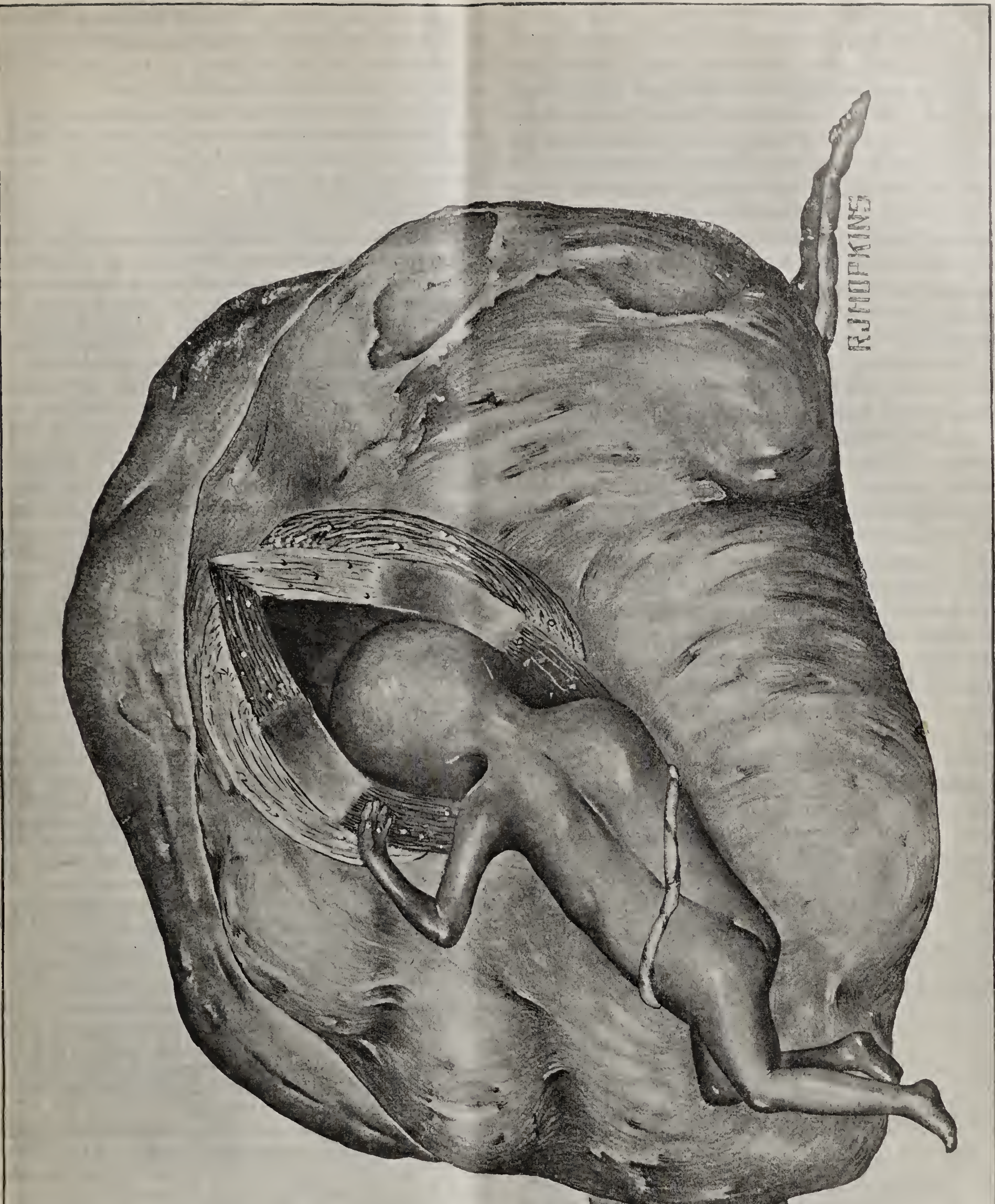

FIG. 2.—Inferior surface of the tumor after incision into the uterine cavity, the fœtus escaping.

prior to operation. This imperfection in diagnosis occurred alike with experienced operators and those of limited opportunities. No special rule or method can be relied upon for diagnosis in these cases beyond rigid care and thorough investigations along the lines of established principles. When a fibroid is located upon the anterior surface of the body of the uterus, and especially if nodular, it will be brought upward and forward as the uterus enlarges, so that the nodules will be distinctly felt. The very distinctness of the characteristic nodular growth establishes a differential diagnosis in the observer's mind, and the coexistence of pregnancy is not suspected until, perhaps, future study of the case detects some signs of that condition.

The treatment of fibroid tumors complicating pregnancy requires the exercise of most deliberate judgment. No error could be more fatal than to conceive that every case of fibroid tumor associated with pregnancy requires operation. Here two lives are involved instead of one. Small subserous fibroids in any part of the uterus, and moderately large interstitial tumors of the fundus, will not require operation. Quite large tumors thus located will be carried upward with ease and offer no obstacle to delivery. In this connection it must be remembered that after parturition these tumors recede with the general atrophic changes which obtain in the uterine tissues. Sometimes a tumor of extensive dimensions during pregnancy will be undetectable a few weeks after parturition. While it is true that operations are borne well by the gravid uterus, no judicious surgeon will elect that time to do an operation—other than imperative. If a tumor of moderate size arises from the lower segment of the uterus and is the cause of constant pain from pressure against the bony pelvis, at the same time providing a serious obstacle to safe delivery, the tumor should be removed. Fibromyomata are seldom single; and the uterus of this character is prone to multiple fibroid disease. Moreover, the increased vascularity and succulent condition of the uterine tissues are unfavorable conditions for myomectomy. The saving of life is the paramount indication. For these reasons, the operation to be preferred is hysteromyomectomy, which under the improved technique of modern gynæcological surgery is uniformly successful. When the patient has gone almost to the completion of the term of pregnancy, both mother and child should be saved by the Porro-Cæsarean section.

When the tumor grows from the lower and posterior part of the uterus, and has fallen into Douglas's space, carrying the fundus backward, the uterine cavity will be turned upward toward the pelvic brim. As both uterus and tumor increase, the pelvic basin will be occupied by the tumor and the uterine cavity containing the fœtus will ascend, the tumor thus blocking absolutely the pelvic outlet. This condition may obtain from comparatively small growths located in the fundal portion of the uterine wall posteriorly. A growth of moderate dimensions so situated will produce retroversion of the uterus, and under the stimulus of pregnancy will increase rapidly and fill the lower pelvic cavity. Such a disposition of tumor and impregnated uterus necessitates immediate hysteromyomectomy; and is illustrated by the case here appended, which prompted these observations:

Mrs. L., aged thirty-four years, married two years, a medium-sized woman, sought the advice of her family physician about the middle of April, 1900, for an enlargement of the abdomen. She had observed an increasing profuseness of the menstrual flow for two years past, but had not sought or received any treatment therefor. Four months previously menstruation had been missed and no recurrence had taken place up to this time. Recently the enlargement of the abdomen had become so pronounced and was accompanied with so much discomfort from pressure on the rectum and bladder that the patient asked the aid of her physician. The doctor made only an external examination of the abdomen, and readily announced the diagnosis of pregnancy. After three weeks had elapsed the enlargement of the abdomen was so excessive, and the pressure symptoms were so acute, that the doctor requested a consultation and I saw the patient with him on May 2d. A vaginal examination disclosed the fact that the entire pelvic basin was packed with a hard mass; that the uterine cervix was so high above the pubes as to be beyond the reach of the examining finger; the tumor when examined through the abdominal parietes was soft and yielding almost to the impression of fluctuation. While the clinical history suggested the duration of pregnancy to be about five months, the enlargement was equal to that of eight months. The greatest suffering came from the pressure on the rectum and bladder, each of which could be emptied only by artificial aid and unnatural posture. A diagnosis of pregnancy with obstructed pelvis by impacted fibromyoma and uterus displaced upward was made and immediate operation advised. The patient was admitted to my private hospital and the operation performed on May 4th. The abdomen was opened by a free incision in the median line and the tumor delivered. The tumor was interstitial and evidently originated in the posterior uterine wall. The illustration (Fig. 1) is the reproduction of a photograph made immediately after the operation was completed, and shows the interstitial character of the growth, as well as the moulding of the same to the form of the pelvic cavity. The location of the uterine cavity and contents formed the highest part of the tumor and was readily recognized by the touch. The immediate steps of the operation were those of hysteromyomectomy. The mass was amputated from the cervix at the vaginal junction, the cervical stump stitched and dropped, and the peritonæum closed over it and across the pelvic floor by a continuous suture of catgut. The abdomen was closed in the usual way without drainage.

The tumor was removed entire, and the cervical canal was not incised until after the operation. When a free incision was made through the cervical opening the amniotic fluid was discharged and a five months' fœtus presented. Fig. 2 was made at this stage of the dissection.

The patient made an uninterrupted recovery and returned home quite well at the end of four weeks.

For the Dyspepsia of Chloro Anæmia.—The *Gazetta Medica lombarda* for July 8th gives the following:

℞ Ferropyrine	9-10ths of a grain;
Soluble pepsine	5 drops;
Distilled water	3,000 grains.

M.

A soupspoonful after each meal.

ATROPHIC RHINITIS.*

By JAMES E. LOGAN, M. D.,

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THE purpose of this paper is not so much a desire to suggest new ideas relative to the causes and treatment of atrophic rhinitis as to bring to the minds of the members of this association a few points for discussion, in the hope of bringing out more definitely your own opinions and experiences. This much-discussed disease has probably engaged as much thought and careful study as any subject known to our profession, and yet we are to-day as far removed from any definite conclusions in regard to its origin as we were ten years ago.

I trust I shall not lessen the interest in this article at the very outset if I begin by protesting against the multiplicity of terms applied by different writers to this disease. It is an established fact in the mind of every pathologist that there exist well-defined evidences of simple atrophy in certain cases—signs, symptoms, and lesions—just as distinct as in the most typical cases of typhoid fever. In the light of such facts it seems to me useless to encumber ourselves with terms necessarily misleading and confusing. The word ozæna carries with it but the single idea of stench, and it could certainly be discarded. Dry catarrh lacks the dignity of professional nomenclature. Simple atrophic rhinitis is a term thoroughly scientific and clearly defines the pathology of this particular disease.

In looking over the literature of this subject one is struck with wonder at the widely varying opinions of men whose conclusions have been derived from the most careful research and whose intelligence is not to be questioned. The physiological function of the spleen has not been more exhaustively discussed, with results less profitable.

A notable feature of nearly every theory has been that, in the light of the author's investigations clinically, microscopically, etc., the deductions have apparently been correct. To illustrate: Hopman believes that in every case of atrophy the distance from the anterior nasal spine to the posterior edge of the vomer is too short, while the height of the fossæ is too great.

Zaufal and Hartman suggest the cause of atrophy to be an abnormally large nasal chamber, whereby the evacuation of secretions by the expired air or by blowing the nose is hindered so that they accumulate and decompose.

Berliner thinks that hypertrophy of the middle turbinate pressing upon the sæptum causes atrophy. Marsh gives four causes, viz.: 1. Diathesis. 2. Germ infection. 3. Changes in the vasomotor system of the part. 4. Necrosis of the ethmoid. Bresgen suggests a sphenoidal and Mayo Collier an ethmoidal suppuration. Wingrave and Capart believe a simple chronic catarrh to be the initial lesion. Löwenberg and others have found that a culture of the coccobacillus would produce the characteristic odor.

Frankel, Krause, J. N. Mackenzie, and others have demonstrated under the microscope the presence of hypertrophy and atrophy in the same specimen. Bosworth has steadfastly adhered to the opinion that purulent rhinitis in childhood is the initial lesion. Michel has suggested the possible existence of accessory sinus suppuration as a cause. None of these opinions is the outgrowth of a fitful imagination, but all are advocated upon purely scientific grounds.

After a careful survey of the literature of this malady, we can sum up briefly the theories of its causation under four general heads: 1. Hypertrophic rhinitis is the initial lesion producing atrophy by mechanically cutting off nutrition to the outer layers of mucous membrane. 2. Suppurative rhinitis in childhood first develops a desquamative disease beginning in the superficial layers of the membrane. 3. Atrophy is the result of a specific germ. 4. Preëxisting suppuration of accessory sinuses produces atrophy by first inducing desquamation of epithelium, followed by attenuation of other tissues, by the constant presence of this product of this inflammation, and the mechanical pressure produced by evaporation of the watery element of the discharge, and the formation of crusts upon the surface of this membrane. Numerous other theories have been advanced, but they have been mere modifications of those just enumerated, and I shall not burden you with any further discussion of them.

The one question which particularly concerns us is, Which of these theories is correct? The only means of arriving at any conclusion is to take up each one separately, discussing its merits and its defects from the standpoint of pathology and experience.

First, we must admit that we have found hypertrophy and atrophy coexisting in the same membrane. It cannot be disputed that hypertrophic tissue may take on atrophy, but the presence of the former is not necessarily followed by the latter condition, as clinical facts have proved. It is entirely possible that atrophy may begin by reason of a distinctly different cause other than the mere presence of an hypertrophic condition.

We do know that a large percentage of atrophic cases occur in young people before the age of twenty years. Is it not altogether reasonable to believe that hypertrophy is less excessive at such age than at later periods in life? Goodale, in an analysis of two hundred cases, found that atrophy occurred with greater frequency between the ages of five and fifteen years; he also found (and this is the experience of most observers) that atrophy occurred twice as often in females as in males. Clinical experience bears out the fact that we have less excessive hypertrophy in the gentler sex.

In Case I, which I shall report, there existed distinct evidence of hypertrophy in the inferior turbinate body on the left side, yet there remained but little of the middle turbinate bone. In the right side was found a clearly defined hypertrophy throughout the entire nostril. The secretion from the left upper meatus was of a purulent type, as was demonstrated by the microscope, such as is not to be found coming from the ordinary hypertrophic rhinitis. There was no evidence of pus in the secretion from the right nostril, which we repeatedly subjected to the same test. The trophic changes manifest in the left middle turbinate could not explain the presence of pus as we found it.

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*Read before the American Laryngological Association at its twenty-second annual congress.

We naturally look for excessive hypertrophy and hyperplasias in individuals who have suffered through many years, or in cases in which marked deformities of the sæptum have destroyed the function, partially or completely, of one or both nostrils. Consequently statistics, as we have gathered them, furnish good arguments in opposition to this theory of the cause of simple atrophy.

The theory expounded by Löwenberg that a specific germ is the cause of this disease has found many warm supporters. "He has proved the constant presence of a highly pathogenic coccobacillus; large bacilli in short chains, or in masses; generally appearing as diplococci, staining well with gentian violet and other aniline dyes. It is distinguished from the other cocci by the large size." Cornil has verified these results. Abel has contributed much literature in support of this theory, as have Kreig and many others.

The presence of the Löwenberg bacillus cannot be denied, since these investigations have been conducted by many along thoroughly scientific lines. But inoculation experiments have so completely failed that it is hard to believe in the virtue of this theory. We cannot doubt, however, that the presence of the coccobacillus explains the existence of the odor found so frequently.

In 1881 Dr. Bosworth presented an article before the International Medical Congress in support of the theory that this condition was brought about by the desquamation of the cell elements of the nasal mucosa following the existence of a purulent rhinitis in childhood, and he adheres to his original opinions at the present time. It is very easy to understand how a degenerative process begun in childhood could end in destruction, not only of the mucous membrane, but of the bony tissue underlying. We do know that many children suffer from a form of purulent rhinitis brought about by various causes, the principal one of which is the infection sustained in birth. It has not been my privilege to follow these cases sufficiently long to establish in my own mind this condition as a factor in the development of subsequent atrophy.

I can well understand how this specific inflammation existing in early childhood might eventually produce in neighboring accessory cavities the same type of disease, namely, purulent sinusitis, which by its stubbornness would continue so long as to result in atrophic changes in the nasal cavity. But I do not see my way clear to believing that the nasal cavities alone being involved could establish the proper explanation of the presence of attenuation of this membrane, and at the same time the secreting power of this membrane be not diminished. To explain my point, I cannot understand how this membrane, robbed of its ephithelium, stripped of its glandular tissue, practically devoid of its blood supply, except through minute channels, could maintain the excessive secretion exhibited in these nostrils. It does seem to me that the secretion must come from the neighboring cavities.

If we are to assume that a preëxisting suppurative sinusitis is a factor in causation, we must change our ideas of pathology. In other words, the atrophic process does not take place *ab initio* from sclerotic changes in the membrane itself, but from mechanical influences brought to bear by the constant presence of this discharge upon the surface of this membrane, and, as suggested by Walb, the pressure exerted by these crusts. We have all seen the excoriations of the upper lip produced by the presence of acrid discharges, such a condition lasting so long as to show marked thinning of this tissue. In adding to this desquamation, due to the presence of irritating discharges from above, the pressure exerted by these crusts, due to the evaporation of their watery elements, might we not reasonably conclude that this was a fair explanation of these phenomena?

The vital objection to all the theories of which I have any knowledge is a failure to account for the immense secretion necessary for the production of these crusts. It is contrary to all physiological law to find secretion where no glands exist, and the microscope fails to reveal glandular cells in a large percentage of atrophied tissue. We also know that the discharges are not from the blood-channels, for such exist in but a limited degree.

The experience of various writers in regard to the initial site of atrophy differs. Frankel, Krause, Mackenzie, and others believe that the inferior turbinate body is the first involved, while many others have found the middle turbinate to be the primary situation. Those who believe that the latter is the first affected are inclined toward the accessory sinus theory.

In laying aside the idea of antecedent hypertrophy as a probable factor, it is not unreasonable to believe that the middle body would be more inclined to atrophy by reason of the fact that its blood supply is more limited and its tissue elements are less resisting. My experience in practically every case has led me to this belief. As I have before intimated in reference to Case I, as in many others, I have seen the atrophic process established in the middle turbinate, while the inferior upon the same side showed but little evidence of the disease.

In 1896 I reported to the Kansas City Academy of Medicine the case of a policeman of our city who had suffered from a suppurative ethmoiditis followed by atrophy of the middle turbinate body. Large crusts would form from time to time, identical with those expelled in clearly developed atrophic cases, affording ample opportunity for microscopical study of the two conditions. Not until after operating did I appreciate the importance of this case in establishing the correctness of Michel's and Grünwald's theory. In a short time after curettage of the ethmoid body the crusts ceased to form and the patient made a rapid recovery. I did not regard this case as a fair test, since the atrophic condition was of comparatively short standing, the bone showing no diminution and the inferior body not at all involved.

Case I.—Elizabeth S., age nineteen, unmarried, with dark hair and eyes, applied to me for treatment on November 16, 1895. Her family record was good, and she was well nourished. Her history revealed the existence of some nasal trouble of five years' standing. For two years previous to her visit to me she had expelled large green crusts from the left nostril, none from the right. Examination gave conclusive evidence of atrophy situated in the left middle turbinate body. The inferior, if anything, was slightly hypertrophied. Both turbinates on the right side were enlarged.

This patient was treated regularly from the date given until March 16, 1896, with the systematic use of tampons after the manner suggested by Gottstein. The success attending this method was all that could be wished so long as it was continued. From the middle of March to May 2d the treatment was discontinued, the patient herself, however, using tepid salt solution for cleansing night and morning. After six weeks of this I found a reappearance of the crusts and an apparent diminution of the inferior body.

This patient furnished to my mind an ideal case for operation, an opportunity of which I had many times resolved to avail myself; accordingly, on May 4, 1896, I attempted to establish a more perfect drainage of the ethmoid body. I first removed what remained of the middle turbinate, and then by means of a large burr opened up the anterior ethmoidal cells. With a large sharp-edged spoon I curetted away the contents of these cells, composed of thin, bony partition walls, and some granulation tissue. This procedure was kept up until I could pass my probe in all directions without detecting soft tissue. The cavity was thoroughly cleansed with bichloride-of-mercury solution (1-1,000) and dusted well with powdered iodoform and a tampon of proper size was inserted into the middle and superior meatuses. On the second day after the operation I found slight bulging of the eye due to the entrance of air behind the ball, which disappeared after the fourth day. This wound was dressed every day in the manner mentioned until the evidence of pus disappeared.

The young woman has visited me many times since, and she seems to have made a perfect recovery. The point of special interest in this case, as I have before intimated, was the existence of atrophy of the left middle turbinate at the same time with hypertrophy of the inferior turbinate on the same side and hypertrophy of the inferior and middle turbinate bodies of the right side. After the removal of the tampons each day the presence of pus was very noticeable in that part in contact with the middle turbinate, while the lower portion of the nostril was filled with the ordinary viscid discharge. The secretions from the right side were such as occur in any case of hypertrophic rhinitis.

Case II.—James B., of Scotch parentage, strong, robust, six feet two inches tall, weighing 190 pounds, of good family record, "had never been sick a day in his life." He had had what he called "dry catarrh" since the age of fourteen. He had lived for fifteen years in a dry, sandy country where high winds prevailed—western Kansas. He applied to me for treatment on October 4th, 1896.

Examination revealed the existence of atrophy in both nostrils, almost complete obliteration of both turbinates, and marked attenuation of both inferior bodies. The crust formations were excessive, so large each morning as to require the use of forceps to remove them, and an odor was present.

Obtaining the consent of my patient, I proceeded to perform curettage upon the left side on October 4th; ten days thereafter I operated upon the other side in like manner. The aggravated symptoms, together with daily observations of the discharges, led me to believe that the posterior ethmoidal cells were diseased, and in each operation I opened these cavities thoroughly.

This patient remained under my care about three months, at the end of which time I discharged him in good condition. Occasional visits from him during the period of a year proved the correctness of my diagnosis and the efficiency of my operation. A letter received from him a month since expressed the greatest satisfaction on his part, telling me that he had had no return of his trouble and that his health in every way was perfect.

I report Case III for the purpose of illustrating, what seems to me, a very good object lesson. As intimated before, the lack of relief in some of these cases operated upon by me, I believe to be due to the incompleteness of my first operation.

Case III.—Minnie M., a young woman of delicate health, came under my treatment in November, 1896. She had been a sufferer from atrophic rhinitis for many years, developing at the age of twelve. The family history of this patient was not good. The father died at an early age, of some lung trouble, and others have not been of the very best health. The younger sister had previously been treated by me for a beginning atrophic process, and upon her I operated in but a partial way.

An examination of this case showed the middle turbinates upon both sides almost obliterated and the inferior bones much reduced in size. Large greenish scales of disagreeable odor were expelled daily. The atrophy had extended to the posterior nares and postpharyngeal walls.

This patient showed much aversion to having an operation, and, being compelled to make her own living, could not afford to lose the time necessary to have it done. Tamponing after the Gottstein method seemed to be beneficial so long as it was kept up, but upon its suspension the condition would be as bad as ever. I finally prevailed upon her to allow me to operate upon one side. It was done about six months after her first treatment began. Without an anæsthetic I opened up the anterior ethmoidal cells and found therein a large mass of broken-down tissue and some granulation material. The outer wall was dense, and the moment it was penetrated the curette met with no further resistance.

At the time of operation I did not believe that the posterior ethmoid cells were involved, and consequently did not remove any part of the middle turbinate bone on that side. Subsequent results have proved to me that I was incorrect, as at the present time the patient suffers from the disease in the posterior nares and pharyngeal vault. Nothing like the amount of material accumulates as formerly did. With the proper care upon the part of the patient she suffers little from the malady. The accumulations are nothing like as extensive, even upon the right side, and, altogether, much good, I think, was acomplished. I have ever since been anxious to complete the operation, but the patient's occupation prevents.

1208 Wyandotte Street.

REPORT OF A CASE OF NEPHRECTOMY FOR ASCENDING TUBERCULOSIS, WITH SOME REMARKS ON CYSTOSCOPY AND CATHETERIZATION OF THE URETERS IN WOMEN.*

By HIRAM N. VINEBERG, M. D.,

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I had the pleasure of presenting before this section, at its meeting of October 27, 1898, a paper entitled The Diagnosis and Treatment of the More Common Bladder Affections in Women by Means of Kelly's Method.† In that paper I reported a case of tuberculosis of the bladder which I had had under observation for over ten months. The case was of considerable interest to me, and I promised, in the event of further developments, to present the case again to you. I take the liberty of doing so to-night.

It may be well to give first a brief *résumé* of the published report:

The patient, a woman forty-seven years of age, came under my observation December 14, 1897. For six years she had been suffering from painful and frequent micturition, which symptoms were gradually growing more severe, so that latterly she would be compelled to get up during the night every ten or fifteen minutes. So far as she knew, she had never passed blood with her urine. A cystoscopic examination disclosed an elongated area of redness studded with small papules, occupying the left side of the bladder. The upper border of this area was some distance from the left ureteral orifice. Tubercle bacilli, few in number, were found in the urine and in scrapings obtained from the surface of the affected area. Under topical applications, made twice weekly, the bladder symptoms improved considerably, so that the patient did not have to get up oftener than once an hour during the night, and during the day, while on her feet, she could easily retain her urine for three or four hours. The local condition underwent varying changes. The redness would at times almost disappear, as would also the papules, but fresh ones would appear in the vicinity from time to time.

In watching the local condition closely, it soon became evident that the fresh papules were taking a course in a direction toward the left ureteral orifice. In January of this year (1899) I noticed that the left ureteral orifice presented a nipplelike projection, that I could not insert a catheter or sound into it, and that jets of urine did not come from it as formerly. Prior to that, occasionally I would take a look at the ureteral orifices, and observed that they both emitted jets of apparently normal urine. I can not recall the last period when I had especially noted their appearance. I was struck with the fact also that the patient about this time began to look poorly and to lose flesh.

After closely observing the patient for a few weeks, and paying particular attention to the appearance of the left ureteral orifice, I arrived at the conclusion that the tuberculous process had extended up the left ureter and involved the corresponding kidney. The right ureteral orifice continued to present the same rhythmic discharge of urine as formerly. In order to determine the actual condition of the right kidney, I catheterized the right ureter and withdrew about ten cubic centimetres of urine, which on chemical and microscopical examination was found to be normal. The patient was now urged to submit to an operation for the extirpation of the left kidney.

It was not, however, until March 3d that I could obtain her consent, because, as she argued, she was not having any pain; her urinary symptoms were about the same. She would not have consented even then had it not been for another trouble from which she was suffering, which to her appeared of greater moment. This was a moderate metrorrhagia due to chronic endometritis and hypertrophied lacerated cervix. Consequently, at the same *séance* nephrectomy, curetting, and amputation of the cervix were done.

It may be well to state that on repeated examinations prior to the operation no enlargement or tenderness of the left kidney could be made out by palpation. The kidney was found well up under the border of the ribs, and very firmly adherent to the fat capsule. The fat capsule was extensively excised and the kidney removed after ligating the vessels and ureter separately. The wound was closed with tier sutures, excepting a small space where a piece of iodoform gauze passed down to the pedicle.

The wound healed apparently by primary union, and the patient was up and about at the end of the fourteenth day. Later, however, the lower angle of the wound opened and a small amount of pus escaped; the resulting fistula took a long time in healing and did not close until the beginning of June—three months after the operation.

The excised kidney was slightly enlarged and made up of a number of cavities filled with pus and caseous products. There was little or no healthy kidney tissue to be seen with the naked eye. The pus showed tubercle bacilli in abundance. It was therefore a case of tuberculous pyonephrosis.

The general health of the patient improved rapidly, so that at the end of six weeks she gained twenty-five pounds in weight.

At the present time (March 10, 1900, a year after the operation) she has gained fifteen pounds more in weight and is enjoying good health. Her bladder symptoms continue about the same. She has to pass urine about every hour at night and every four or five hours during the day, but the act of micturition is unattended with pain or any discomfort. For some time past a cystoscopic examination has not been very satisfactory, owing to the failure of the bladder to "balloon." Quite recently, however, I succeeded in making a good inspection of the whole vesical mucosa. It appeared fairly normal except at the upper left quadrant, where there were a few small erythematous patches and several small white papules of the size of a millet seed.

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*Report of a case presented to the Obstetric Section of the New York Academy of Medicine, November 23, 1899.

† *New York Medical Journal*, January 7, 1899.

The urine is of a clear amber color, but on standing forms a slight deposit which contains a few pus cells. The right ureteral orifice seems perfectly normal and is discharging rhythmically jets of urine which to the eye appear quite clear.

The foregoing case, in my opinion, was an instance of primary vesical tuberculosis ascending the left ureter and secondarily involving the corresponding kidney. Of course, it is possible that the disease affected the kidney primarily and the bladder became secondarily involved. Assuming the latter to be the case, it is difficult to explain why the secondary lesion in the bladder was situated at such a distance from the ureteral orifice. In a descending renal tuberculosis the changes produced are first observed in the ureteral papillæ and in the tissue immediately surrounding it. When the patient first came under observation the ureteral orifice and trigonal area were perfectly normal in appearance. Besides, it must be remembered that the symptoms first and last were referable to the bladder only. This does not, however, prove much, for there were no kidney symptoms even when the organ was markedly disorganized. Still, it is difficult to assume that the patient went about for six years with a tuberculous kidney which gave rise to no other symptoms but frequent and painful micturition. It is more logical to suppose that the kidney affection was of comparatively recent date, and corresponded with the onset of failing health and loss of flesh, which were manifest for the six months prior to the operation.

Ascending renal tuberculosis in the male is not uncommon, owing to the frequency of tuberculosis of the sexual organs. But in women the case is different. There is no such relation between their sexual organs and the urinary apparatus as there is in men. J. Israel,* the greatest living authority on surgical diseases of the kidney, states that female patients contributed sixty per cent. of all his operative cases of tuberculosis of the kidney, and seventy-five per cent. of all his primary cases of renal tuberculosis. In other words, primary renal tuberculosis is met with three times as often in women as in men. That they should form also such a large preponderance of all operative cases, he explains by the fact that in the male the testicles are frequently also involved and the cases are not so suitable for operative interference. He does not consider involvement of the bladder as a contraindication to nephrectomy for renal tuberculosis, and, while he has not seen a cure of the bladder affection in these cases in an anatomical sense, he has observed an improvement which well nigh approached a cure. The case herewith reported bears out that observation.

It is thus seen that primary chronic tuberculosis of the kidney is not an uncommon disease in women. It is only the chronic form that interests us, for acute tuberculosis is usually of the miliary form and is not a surgical affection. Fortunately, the disease as a rule is unilateral. In Israel's cases, in only two were both kidneys affected. It is this feature—unilateral involvement—that makes the prognosis of surgical intervention so favorable.

Israel * and König † report cases in which the patients were in good health nine and twelve years after nephrectomy for tuberculous kidney. In my first case the patient was operated upon two years and a half ago. She is in excellent general health and weighs more than she ever did.

Israel and other operators seldom excise the corresponding ureter when doing nephrectomy for a tuberculous kidney, even when there are evidences at the time of some involvement of the ureter. As a rule, no further trouble is encountered from that source.

Cystoscopy in Women.—In the paper to which reference has already been made, the writer tried to draw attention to the great value of Kelly's method both for the purpose of diagnosis and for that of treatment in affections of the bladder in the female sex.

It would seem that the advantages of the method have not yet met with full recognition in this city, even in the minds of gynæcologists. At a recent meeting of the New York Obstetrical Society, Dr. A. Brothers read a paper on cystitis in the female, in which great prominence was given to cystoscopy by the Nitze-Casper method. Kelly's method was treated in a stepmotherly fashion and was spoken of in rather disparaging terms.

In the discussion that followed, I took occasion to make the following remarks:

"It is a matter of surprise to me that any one in this country to whom Howard Kelly's method is known should go abroad to study a much more complicated and a decidedly less useful method.

"The advantages of Kelly's simple method of cystoscopy in the female over electro-cystoscopy as described by the reader of the paper are so numerous that one scarcely knows where to begin.

"1. Kelly's cystoscope is a plain metallic tube and can be easily sterilized. Casper's cystoscope is a complicated instrument which is sterilized with difficulty. Casper ‡ advises that the instrument be sterilized by submerging it, except the funnel part, for twenty-four hours in a three-per-cent. solution of carbolic acid. Should the instrument be required for use twice on the same day it must be carefully cleaned with a soft brush and soap, care being taken that the fluid enters the funnel.

"2. With Kelly's method the interior of the bladder is inspected directly, and the character of the objects seen as easily recognized as it would be on the surface of the body. With Casper's instrument the objects are viewed through a prism and through the medium of a fluid. It takes some training to distinguish the true nature of the objects presented to the vision, and there is in consequence a great latitude for errors.

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* *Deutsche medicinische Wochenschrift*, 1898, No. 28.

* *Loc. cit.* † *Deutsche medicinische Wochenschrift*, 1900, No. 6.

‡ *Handbuch der Cystoskopie*, Leipsic, 1898, p. 48.

"3. One of the most frequent and rebellious conditions in women is chronic cystitis. Its detection can be accomplished with either instrument; but here the usefulness of the Casper instrument ends, while Kelly's cystoscope affords us one of the greatest aids in bladder therapeutics by permitting direct applications, with the aid of sight, to the diseased areas.

"This advantage can not be sufficiently estimated by any one who has not availed himself of it, and is of itself sufficient to completely supersede the Nitze-Casper method. A case that will be narrated later will bear out this assertion.

"4. The removal of small foreign bodies from the bladder, the snipping off of small growths, and the curetting or cauterizing of the vesical mucosa are easily effected through a medium-sized Kelly's cystoscope. On the other hand, one has only to see Nitze's operative cystoscope and he will be convinced of the technical difficulties inherent to its use. Casper himself speaks of it in very reserved terms.

"5. Cystoscopy has frequently for its object the detection of the condition of either kidney. With Kelly's method this frequently may be attained by getting the ureteral orifice into view and noting the character of the fluid the ureter is discharging. Casper states that, with his cystoscope, he is frequently unable to do so, and has in consequence to resort to catheterism of the ureters. The explanation of this difference in the two methods has already been referred to. In the one we view the discharge with the naked eye, in the other through a prism and the medium of a fluid.

"6. Although admitting that the risks of infecting a sound kidney by catheterism of the ureter have been very much overdrawn, it must be conceded that such a risk is present, even in the most skillful hands. Now, with Kelly's method this risk is reduced to a minimum. With the patient in the knee-chest posture, and having got the ureteral orifice into the lumen of the cystoscope, the catheter may be directly passed into the ureter with the aid of the sight without coming into contact at all with the vesical mucosa. This is certainly of great advantage when we are examining for a tuberculous kidney and when a certain amount of localized secondary affection of the bladder is almost invariably present. One may even take the precaution of swabbing the speculum and mouth of the ureter with a wad of antiseptic absorbent cotton before passing the ureteral catheter. This precaution can not be taken with Casper's cystoscope. It is true the bladder is filled with a boric-acid solution, but it is not of such a strength (three per cent.) as to kill the tubercle bacilli. Consequently the catheter, before reaching the ureter, must pass through a fluid in which tubercle bacilli may be present. Further still, with Kelly's cystoscope, by applying the end of the instrument or one shaped for the purpose, over the ureteral orifice, urine may be collected directly from either kidney, thus further obviating the necessity of catheterizing the ureters."

The reader of the paper stated that one of the advantages of the Nitze-Casper method over Kelly's was that a larger field was presented to the vision at one time.

Let us read what Casper * himself says on this point. He states that, though it is easier to introduce the cystoscope in women than in men, it is more difficult to obtain a satisfactory view of the bladder interior. He quotes from Winter's writings who, he says, has followed the method in women with the greatest skill and enthusiasm.

Winter says that one of the essentials for a successful cystoscopic examination is a uniform dilatation of the bladder. There should be an absence of pockets or folds, which admit of poor illumination and hence would be readily overlooked. In this lies the chief difference between the female and male bladder. The latter, on being filled, unfolds toward the abdominal cavity and nothing interferes with its assuming a spherical form. Even enlarged prostates do not interfere with this. In women the conditions are quite different. The bladder lies adherent at its posterior segment to the cervix and to the upper part of the vaginal wall; its upper part is pressed upon by the movable uterus. Both of these factors influence the shape of the bladder and interfere with its dilatation into a round form, a shape so essential to successful cystoscopy.

In a man, a hundred and fifty grammes (five ounces) of fluid injected into the bladder usually suffices, but in a woman this quantity has little influence upon the form of the bladder; much larger quantities of fluid are necessary to approximately unfold it, quantities which in persons requiring cystoscopy are often unbearable.

These difficulties are not insurmountable in normal conditions, but they frequently are insurmountable in pathological states. He mentions the following conditions which frequently go to make cystoscopy in women impossible:

1. Displacements of the bladder by reason of malpositions of the uterus.
2. Tumors of the uterus and its annexa, but more especially tumors of the cervix situated in the anterior vaginal wall.
3. "Inoperable" cervical carcinoma.
4. Deeply situated parametritic exudates.

The obstacles inherent to the Nitze-Casper method are many, requiring great patience and skill to overcome. I will again quote from Casper as to the difficulty in obtaining one of the essentials of a successful electroscopy—a perfectly clean bladder. He states: The irrigations must continue until the returning fluid is perfectly clear, until all the mucus from the bladder and the mucosa is removed. He states that in many in-

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* *Loc. cit.*, p. 173.

stances he has had to keep on irrigating for fully half an hour before the end was attained, and ten litres of fluid were needed.

In cases of pyelitis, where pus is constantly coming down from the kidney, the necessary condition is difficult to obtain and at times impossible. The examination may have to be postponed for another time.

It happens occasionally that the returning fluid is clear, and still, when the cystoscope is introduced, the fluid medium appears opaque and non-transparent. This is due to a particle of mucus, or a drop of blood or pus, getting on to the prism or lamp in the passage of the instrument through the urethra. The particle may be very minute and still it will interfere with a clear vision, for one must bear in mind that behind the prism lies a telescopic tube. If the urethra is affected with catarrhal inflammation this accident is more likely to happen, but it may occur even with the normal urethra.

In some cases the instrument has to be withdrawn, cleaned, and reintroduced.

In Dr. Brothers's paper, and in the discussion that followed it, great stress was laid upon the advantage of the Nitze-Casper cystoscope over Kelly's in that its calibre was small and required no prior dilatation of the urethra. Now, as a matter of fact, no dilatation of the urethra is necessary in Kelly's method. For simple cystoscopy a No. 8 (eight millimetres) is sufficient. This is no larger than the Nitze-Casper instrument. I have been able to even catheterize the ureters through a No. 8 cystoscope. I have never had occasion to use a larger cystoscope than a No. 10, excepting a few times when I was a novice at the work, and once since when I had occasion to remove a hairpin from the bladder.* In the majority of women this size can be passed without prior dilatation of the urethra. This certainly I am safe in saying, that, after having used the cystoscope several hundred times, I have never observed a single instance in which the control of the vesical sphincter was in the slightest degree impaired by its use.

A great deal of stress was also laid upon the traumatism likely to be produced by the sharp end of Kelly's cystoscope. Of course, a bungling use of the instrument might injure the vesical mucosa. But an unskillful use of the Nitze-Casper cystoscope is attended with even greater danger. Casper states that a novice frequently pushes the beak of the instrument against the vesical wall and makes a pocket for it, with the result that the mucosa is burned by the lamp and the examiner wonders why he can not see anything. Traumatism of the bladder wall can and ought to be avoided with either instrument.

The writer wishes to emphasize the fact that his remarks apply only to cystoscopy in women. He does not underrate the value of electroscopy—the only so far practical cystoscopy—in the male subject.

It is frequently asserted by microscopists, and also by so distinguished an authority as Professor A. J. C. Skene, that a chemical and microscopical examination of the urine will indicate the different forms of bladder affections and differentiate them from those of the kidneys. This, no doubt, is true to a certain degree, but such an analysis often leaves us in the lurch, and in some noted instances within my own experience would have led to serious error but for the knowledge obtained with the cystoscope.

In one instance the microscopist diagnosticated a malignant growth of the kidney when there was nothing more than a cystitis present, with a few erosions of the vesical mucosa which bled very freely. The woman was completely cured with topical applications to the bladder and has remained in perfect health ever since, a period of over four years.

Farther on will be reported another case in which the microscopical and chemical examination of the urine proved to be misleading.

In the so-called "irritable bladder" so frequently met with in women the urine shows no change whatever, and still the affection in the majority of instances is due to a pathological condition of the bladder wall. As has been pointed out by Kelly, the writer, and others, the condition is usually due to hyperæmic patches at the trigonum. A cure is readily effected in these cases by the direct application of a five-per-cent. or ten-per-cent. solution of nitrate of silver. Before the use of the cystoscope irritable bladder was attributed to a fancied ante-version of the uterus, to hysteria, to malaria, to "cussedness" on the part of the bladder, and to a host of other things which the imagination might call up. The therapeutics was in accordance. The uterus was stretched and straightened; the patient was treated for hysteria, nervousness, etc.; and, when all these measures failed, as they frequently did, a vesicovaginal fistula was artificially made in order to give the "unruly" bladder a rest.

The following case is narrated to illustrate the great value of direct topical applications of nitrate-of-silver solutions to the affected portions of the mucosa in a rebellious case of chronic cystitis, associated with a large ulcer at the apex of the bladder.

Miss W., aged twenty-five, a trained nurse, had the misfortune to contract from a patient gonorrhœal ophthalmia of one eye. She was in bed with this for seven weeks, during which time it was first observed that she had albuminuria. Soon thereafter she had an attack of cystitis, which lasted about six weeks. She was confined to bed and was given irrigations of the bladder. Shortly afterward she began to suffer with pain in the right inguinal region, which occasionally extended to the right lumbar region. The pain was attributed to trouble with the appendix or with the right ovary. Bladder symptoms again became manifest at this time, the patient having to urinate frequently, and suffering severe pain during and after the act. The urine contained blood and pus. These attacks would recur every two or three weeks and would last three or four days. The attacks were growing so severe and frequent that the patient was confined to bed the greater part of the time and required the free administration of opiates. It was therefore decided to perform an exploratory laparotomy. This was done about five years and a half ago by a prominent gynæcologist. The incision disclosed a normal appendix and normal ovaries. The operator thought he felt a round tumor at the lower border of the ribs, of the nature of which he was in doubt. The appendix was ablated and the abdomen closed. The patient made a good recovery from the operation. Her symptoms, however, persisted and the urine continued to show the presence of blood and pus. She now consulted a prominent surgeon, who made a cystoscopic examination under anæsthesia. He made a very grave prognosis, telling the patient she had about two months longer to live, and advised vesical irrigations, etc. The treatment was carried out for some time without affording any relief. On the contrary, the pain with micturition grew more severe, as did also the pain in the right lumbar region. During all this time the patient had lost weight and strength, having no energy to do anything or go anywhere, and was for most of the time reclining on the bed or the lounge. She next consulted a very eminent genito-urinary specialist, who made a cystoscopic examination under chloroform and advised a course of treatment, which was carried out without any benefit. At this time the patient was urinating every fifteen minutes and suffering agonies. Her last consultant advised her entering a hospital, which she did, but the treatment carried out there seemed only to aggravate her condition. She was then transferred to the surgical service and placed in charge of the attending surgeon. She now had several attacks, during one of which she became comatose and was not expected to live. Her general condition was very poor, and an effort was made to build up her strength preparatory to draining the right kidney, which was done at the end of three months (1896). Four weeks after the nephrectomy the patient left the hospital, and soon afterward the wound was allowed to close. There was very little change in the bladder symptoms, the patient being compelled to wear a urinal constantly. At the end of a year the ureters were catheterized and it was reported that the left kidney was all right. The bladder walls and mucous membrane were said to be thickened, and there was a large ulcerated patch around the right ureteral orifice. Pus was seen coming from the right ureter. The patient reentered the hospital and the right kidney was extirpated. She left the hospital at the end of four weeks. After the removal of the kidney the patient gained in weight and in strength. The bladder symptoms improved slightly for a short time, then they recurred with increased severity. The patient was now on the verge of nervous prostration. She again returned to the surgeon who performed the nephrectomy, and he treated the bladder at his office for about two months without any perceptible improvement. She was now referred to another well-known surgeon, who gave instillations of nitrate-of-silver solution into the bladder. These had no beneficial effect, and were discontinued after five treatments.

**Philadelphia Medical Journal*, March 17, 1900.

On September 20, 1899, as a *dernier ressort*, suprapubic cystotomy was performed by the same surgeon who had done the nephrectomy and in the same hospital. The bladder was found thickened, and the actual cautery was applied to an ulcerated patch in the trigonum. The bladder was kept drained for five weeks and then allowed to close, which it did rapidly. Her symptoms, however, were not in the least ameliorated, micturition being as often as every fifteen minutes in the daytime and from ten to twelve times during the night. The act was attended with agonizing pain and severe tenesmus. Her vulva and thighs were scalded from the urine, and she was in a pitiable condition.

She was then referred to Dr. Vineberg, and after a few weeks of treatment began to improve. Now, after about three months of treatment, she often goes as long as three hours without urinating, and at night seldom urinates oftener than twice, and is entirely free from pain during or after the act.

The foregoing is slightly abridged from the written history kindly furnished by her physician. I may add that a month later the patient was practically cured. She did not urinate oftener than three or four times during the day and very often slept through the whole night without urinating once.

At the last cystoscopic examination the vesical mucosa seemed normal everywhere, with the exception of a few pale-red patches in the trigonal area. The urine is clear, and the bladder will admit of the injection of two hundred and fifty cubic centimetres of fluid without discomfort to the patient. When she first came to me the attempt to inject more than a hundred cubic centimetres of bland fluid into the bladder would be attended with the most excruciating pain.

When the patient came under my care, on cystoscopic examination, several patches of erosion were found in the trigonal area and a large ulcerated surface at the apex of the bladder. The ulcer had an angry appearance and was surrounded by a zone of intense hyperæmia, which bled very freely on the slightest touch. The patches at the trigonum yielded very readily to direct applications of nitrate-of-silver solutions, varying from five per cent. to twenty per cent., the patient being in the knee-chest posture. The lesion at the apex did not show such rapid improvement. The reason of this was obvious. Even in the knee-chest posture, the most favorable one, it was difficult to keep the part free from urine for a sufficient time following the applications to obtain their full effects. For as soon as the urine comes into contact with the silver solution chloride of silver is formed, which is inert. By removing the urine as quickly as possible and asking the patient to breathe superficially, so that whatever urine collected in the blader was not thrown up against the affected surface by contraction of the abdominal wall, I was enabled to make the applications with success. From this it can be readily seen why the instillations of nitrate-of-silver solutions, and injections of the same, which the patient had had regularly, failed to benefit her. It can also be seen why such a plan of procedure must usually fail. Irrigating the bladder with some bland solution and draining it off with a catheter by no means completely empties the bladder, as every tyro in medicine must know. Further, while you are making the instillations the two ureters are rhythmically discharging the urine from the kidneys into the bladder and increasing the amount of the residual urine. Consequently, when the nitrate-of-silver solution reaches the bladder it meets with enough urine to convert it into an inert chloride of silver.

When these instillations do succeed in effecting relief, it must be due to a combination of fortuitous circumstances. The lesion must be limited to the trigonal area and the operator must by chance succeed in squirting the solution directly against the affected part.

Kelly's cystoscopy has a still larger field in therapeutics than that already dwelt upon.

In tuberculosis of the bladder, direct applications of various medicinal agents to the diseased areas will check the progress of the disease and afford the patient very great comfort.

Again, with a moderate-sized Kelly's cystoscope small growths may be excised and foreign bodies removed, thus obviating a cystotomy.

(*To be Continued.*)

A CASE OF
ACUTE GLAUCOMA WITH SUBHYALOID HÆMORRHAGE
SUPERVENING UPON
UNIOCULAR RETINITIS ALBUMINURICA.

By DAVID WEBSTER, M. D.,

AND

EDGAR S. THOMSON, M. D.,

NEW YORK.

Philip B., fifty-six years old, a cigar-packer, married, found on the morning of January 15, 1900, that he could not see to read the newspaper as usual. He consulted a physician, who told him he had a cold in his left eye and gave him a lotion. Later he consulted another physician, who said he had "fundus trouble" and that he never would see again with his left eye. This physician gave him some internal treatment, however. The attending surgeon of a dispensary which he visited examined his urine and told him his kidneys were sound, but advised him not to eat meat, potatoes, or eggs and not to drink coffee or tea.

On the 15th of March his left eye "began to swell," and he consulted a skilled ophthalmologist, Dr. Tansley, of this city. Dr. Tansley found all the symptoms of acute glaucoma of the left eye. He attacked the disease vigorously with meiotics, which failed to give relief. As the patient was "almost crazy" with pain and as the tension of the eyeball threatened permanent loss of sight, Dr. Tansley advised an immediate operation, and, as he did not like to operate at the patient's home, on account of the unsanitary condition of the surroundings, he kindly referred him to me (Dr. Webster) and asked me to do the operation for him at the Manhattan Eye and Ear Hospital.

When I saw him, on March 19th, the eyeball was red, the tension was increased, and the anterior chamber was shallow, but, owing to the meiotics that had been applied, the pupil of that eye was smaller than that of the other. The vision was reduced to perception of light. Ophthalmoscopic examination of the right eye showed what appeared to be a glaucomatous cupping of the disc (—3 d.), but the eye retained vision $= \frac{20}{20}$, had a good visual field, and was hypermetropic half a dioptre. The fundus of the left eye could not be seen, on account of the opacity of the media.

I performed an iridectomy upward, under cocaine anæsthesia and with the use of suprarenal capsule extract, on the same day. Immediately after the excision of the iris the whole pupillary area was obscured by blood, which also spread itself over the anterior surface of the iris. He remained in the hospital until April 6th, a period of eighteen days, during which he had treatment with a view to getting rid of the blood in the anterior chamber, but without effect. The hæmorrhages were renewed as fast as the blood was absorbed, and always the anterior chamber was from a quarter to half full of blood. His urine was examined and found to be loaded with albumin and with casts of various kinds. His diet was regulated accordingly, and he was treated locally and internally, but still unsuccessfully. On the eighteenth day he was discharged from the hospital and referred back to Dr. Tansley for further treatment.

Dr. Tansley kept him under observation and treatment for a little over two weeks, and then, all perception of light being lost and the eye remaining painful and inflamed, was forced to the conclusion that enucleation should be performed. I concurred in Dr. Tansley's opinion, and on April 25th he was readmitted to the hospital and I removed the eye under anæsthesia with ether. A copious hæmorrhage occurred a few hours after the operation. For this a pressure bandage was applied and the patient was kept sitting up. Two days after the enucleation, on April 27th, the bandage was removed and the orbital cavity cleansed. There was a slight recurrence of the bleeding and the pressure bandage was reapplied.

On May 3d the patient was discharged with his orbital cavity in good condition and the fellow eye unaffected.

From a clinical standpoint the case was a rather rare one, and somewhat interesting. There is very little doubt that a nephritic retinitis with hæmorrhages preceded the attack of acute glaucoma. Had we been aware of this, it is questionable whether the iridectomy would have been performed. But uniocular retinitis albuminurica is not very common, and, as the patient said that his urine had been examined and his kidneys found to be sound, the real condition remained unsuspected until the repeated hæmorrhages into his anterior chamber led to further investigation.

Dr. Edgar S. Thomson, one of the pathologists to the Manhattan Eye and Ear Hospital, examined the enucleated eyeball macroscopically and microscopically, and gives the results of his own investigations herewith:

Pathological Report.—The eye, which measured 25 millimetres in length, was hardened in formalin and bisected horizontally. The general appearances were those of a glaucoma of some weeks' duration. The anterior chamber was full of exudate; the pupil was widely dilated; the optic nerve was cupped; and numerous small retinal hæmorrhages were present, with a large subhyaloid hæmorrhage in the macular region. This subhyaloid hæmorrhage had the usual shape of the letter D with the convexity downward, and was 8 millimetres in length and 2 millimetres in thickness.

Half of the eye was mounted as a gross specimen, by the Melnikow-Rasenedenkow method, which preserves the colors, and the other half was embedded in celloidin and sectioned for microscopical study. Sections were stained with hæmatoxylin and eosine and also by the Van Gieson method.

The cornea and lens were both fairly normal to all appearances. The anterior chamber was full of an exudate composed of fibrin and blood cells. The iris was slightly infiltrated with leucocytes and was much thinned. The periphery of the iris was firmly adherent to the cornea, entirely occluding the filtration angle. The iris vessels were the seat of a marked fibro-hyaline degeneration in the media, many of them being so thickened as almost to occlude the lumen. The ciliary bodies were small, slightly infiltrated, and shrunken, with similar vascular changes. The optic nerve was cupped in the manner usual in glaucoma, the lamina cribrosa being displaced backward about 1 millimetre. The nerve fibres were atrophic and the connective tissue nuclei were increased. There were some exudates in the vitreous and a few small hæmorrhages. The chorioid was much shrunken and thinned, and the vessels were emptied by the pressure so that it was difficult to study the details. Such vessels as were visible, however, showed the same fibro-hyaline change in their walls, which was most marked in the macular region.

The retina in the macular region presented the characteristic picture of albuminuric retinitis. There were large exudates of fibrin in the external molecular layer, which increased the thickness of the retina enormously and brought the fibres of Müller distinctly into view. Some of these masses of fibrin had undergone colloid degeneration. Through all the layers, but especially in the fibre layer around the blood-vessels, there were extravasations of blood. The layer of ganglion cells was completely obscured by red blood cells, and no trace of the ganglion cells could be discovered. There was also a leucocytic infiltration around the masses of fibrin, not very extensive, however. The layer of rods and cones was the seat of numerous droplets of serous effusion, which did not coalesce. Elsewhere the retina was fairly normal, although everywhere the blood-vessels showed hyaline degeneration with small extravasation of blood.

The subhyaloid hæmorrhage was composed of large masses of red blood cells and fibrin, and was situated between the hyaloid membrane of the vitreous and the internal limiting membrane of the retina. It was sharply limited and exerted no pressure on the retina, a fact well known to those who have observed cases of subhyaloid hæmorrhage clinically.

The glaucoma must have existed for some weeks to have produced such conditions as atrophy of the iris and ciliary body and cupping of the nerve, but the presence of leucocytic infiltration would, in all probability, limit the disease to "weeks." On the other hand, the extensive vascular changes and the colloid masses in the retina are good presumptive evidence that the albuminuric retinitis preceded the glaucoma. The retinitis must certainly have existed for some months.

The subhyaloid hæmorrhage, though occurring in a diseased eye, fairly demonstrates what has been inferred through clinical observation, viz.: that the location of such hæmorrhages is "subhyaloid," and that the blood may be absorbed without any destruction of the retinal layers through pressure. I (Dr. Thomson) have been unable to find a published report of such a case.

THE TREATMENT OF

TUBERCULOUS AND PURULENT JOINTS WITH LARGE-GLASS-SPECULUM DRAINAGE AND PURE CARBOLIC ACID, WITH A REPORT OF SEVENTY CASES.*

BY A. M. PHELPS, M. D.

NEW YORK.

LAST year and the year before I had the honor of presenting to the American Orthopædic Association a method of treating abscesses and diseases of the joints by a method somewhat unique. I also presented at that meeting a report of several cases of erysipelas treated in the City Hospital with pure carbolic acid and the charts of those cases showed that the plan of treatment cut short every case.

Since the reading of that paper, I have operated on all suppurating and tuberculous joints with abscesses by the plan presented at that meeting. All of our erysipelas cases at the City Hospital have been treated with applications of pure carbolic acid, and during the past year, of the scores of cases so treated in the erysipelas pavilion and surgical wards, all have been either aborted or immediately arrested, and I believe no deaths are recorded.

In regard to the use of pure carbolic acid in tuberculous and suppurating joints, and the method of its application, I am thoroughly committed to, and I urge upon the profession the importance of following the method, because I am convinced that it is superior to any other that I have resorted to, or of which I know. There is a wide difference of opinion in the orthopædic profession as to the advisability of operating upon these joint abscesses. We have one extreme wing who advocate the do-nothing plan, and in one of Ridlon's papers he states that not one case in a hundred should be interfered with. Then we have another wing of the profession who believe that abscesses which are causing constitutional or any considerable local disturbance should be operated upon. Lastly, another portion, to which I belong, believe that every suppurating or tuberculous process of joints attended with abscess should be operated upon as soon as a diagnosis is made, and for the following reasons:

Abscess in no way interprets the pathological condition present in a joint. The largest abscesses, those which cause the greatest constitutional disturbance, are attended frequently with a small amount of bone disease or none at all, whereas the more severe forms of bone disease of joints are frequently attended with small abscesses which cause no constitutional disturbances, but which insidiously destroy the entire joint, resulting later on, if early interference is not insisted on, in a complete excision or the death of the patient.

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*Read before the Thirteenth International Medical Congress in Paris, August, 1900.

Knowing these facts as I have observed them in hundreds of cases clinically, I urge an early operation as soon as a diagnosis is made on all abscesses, either tuberculous or purulent. The operation is performed for two purposes:

First, and the most important, for the purpose of exploring the joint to ascertain the parts involved and the amount of destructive change which has taken place.

Second, for the purpose of thorough drainage. An empty house is better than a bad tenant, and surely, if living tissue lies in contact with tuberculous or purulent material, infection necessarily takes place, with destruction of bone or soft parts, in proportion to the duration of maceration and extent of infection.

And then, again, abscesses, particularly of the hip joint, in a very large proportion of cases, ulcerate through the capsule anteriorly, rupturing into the iliacus internus muscle, a portion of which arises from the anterior border of the capsule, thereby finding its way, by burrowing upward over the brim of the pelvis, into the iliac fossa. Such cases nearly always result in extensive destruction of the inside of the ilium, because drainage from this fossa is interfered with on account of the pressure of the tissues lying across the brim of the pelvis. After years or months have elapsed, on account of the condition of the patient, an operation is deemed advisable, and the surgeon will frequently find that he has to detach from the crest of the ilium the abdominal parietes, and with a scoop and chisel remove the entire iliac fossa. This accident could be easily avoided by an early exploratory operation, as early as fluctuation is detected about the joint.

Moreover, if the abscess does not find its way into the iliac fossa, Scarpa's triangle becomes filled with pus, burrowing takes place frequently through the triangle, the pus making its appearance on the posterior aspect of the leg, or underneath the fasciæ downward upon the anterior aspect of the thigh, destroying whole groups of muscles.

There is no reason that I can find for allowing any abscesses to produce these secondary destructive changes. Very frequently—and I have a list of several cases—perforation of the acetabulum takes place. Pus finds its way down along the inside of the pelvis between the bone and the pelvic fasciæ by the side of the rectum, rupturing into it, and often destroying the sphincter muscles or establishing a communication between the joint and the rectum, from which fæcal matter and gas constantly escape.

Such cases I have operated upon, and they are most serious and difficult to remedy. An early operation would have prevented this calamity. Pus never finds its way into the iliac fossa or the retroperitoneal cavity through the acetabulum so that it can be felt by palpitation from above. This has been taught, but it is a mistaken idea, and the gentleman who first wrote it, and those who afterward copied it in their writings, had had no clinical observation upon the subject, or the error would never have crept into our literature. The only way that pus ever finds its way into the iliac fossa is by the route which I have already described, on account of the rupture of the capsule anteriorly.

Now let us go back a little, and examine briefly the ætiology and pathology of the conditions which lead to abscess. My remarks will be confined to hip-joint disease alone. Hip-joint disease, either tuberculous or purulent, is always preceded by a lesion, either of the bone or of the soft parts. There must necessarily be, according to the laws of bacteriology, a soil fit for the reception and growth of bacteria. This soil is inflammatory new material. When a lesion has occurred, from injury or from embolism, there is at once an effort of Nature made to repair it. If inoculation into this area of normal inflammatory material does not take place, such a child will have all the symptoms of hip-joint disease and will recover within a month or two, unless subsequent injuries are inflicted. These are the cases of so-called ephemeral hip-joint disease. They are simply cases of normal inflammatory action for the purpose of repair. This normal inflammatory action is attended by the following conditions:

When a lesion has been produced, hæmorrhage takes place, then the wandering of cells, or rapid cell proliferation at the point of lesion. The blood clot becomes organized by displacement. Cells arrange themselves into line to repair the tissues injured. Loops of capillaries and small nerve filaments are thrown out into this new inflammatory material for the purposes of nutrition. After a little, each cell becomes converted into tissue resembling the tissue which has been injured—bone cells producing bone, other cells producing soft parts. After a time, organization has taken place and contraction of the new inflammatory material occurs. The loops of the capillaries and nerve filaments are destroyed by pressure and a scar is left.

If the pathogenic bacteria are floating in the circulation of the child, and they come in contact with this new inflammatory material during the normal process of repair, inoculation is likely to take place, and cell after cell in this new inflammatory material becomes destroyed, and bacteria deposit or secrete their toxines, and the entire area of inflammatory repair is converted into a purulent or tuberculous cavity. This pus cavity, filled as it is with bacteria, is a reservoir from which infection of surrounding tissues takes place. If the diseased cavity is in the head or neck of the bone, it enlarges until perforation occurs, and the joint itself becomes secondarily infected. If the infection is in the epiphysial lines of the acetabulum, then the joint becomes secondarily infected at the same time as the primary infection in the acetabulum. The head of the bone and acetabulum may become secondarily infected from the abscess within the capsule of the joint, when the soft parts are primarily involved. In other words, the maceration of these bony structures in this infectious material, loaded with bacteria and virulent toxines, results in secondary involvement and destruction of the entire bony structure of the joint. These propositions are accepted in the surgical world, and surgical bacteriology, pathology, and clinical observation have demonstrated them. I therefore cannot see how it is possible to accept the non-interference plan with these active and destructive pathological processes as a rule of practice.

It is a fact that perhaps one abscess in ten, either of joints or of any other tissues of the body, may be absorbed. It is also a fact that more than fifty per cent. of abscesses of joints will find their way to the surface in such a manner as to establish good drainage, and thereby allow the joint to recover under proper mechanical treatment. But what are we to do with the other fifty per cent. of cases that produce dangerous disturbances? How are we to distinguish the benign from the malignant? Without an exploration we cannot. The rule followed in cases of appendicitis should be followed in abscesses of joints, and precisely the same surgical principles should be adopted in abscesses of joints as in abscesses of any other part of the body, more particularly of the shaft of long bones. No surgeon of any reputation would ever think of trusting a case of osteomyelitis or tuberculous abscess of bone to Nature. Such conditions are always operated upon and life and limb saved that otherwise would have been sacrificed. In cases of appendicitis no surgeon to-day would think of trusting such cases to Nature. An abscess of the appendix ruptures into the abdominal cavity, when not surgically treated, in seventy-five per cent. of all cases, and there is a mortality of over thirty-five per cent., whereas with early surgical interference the mortality is a fraction of one per cent. These same arguments can be applied to abscesses of the joints. If every joint which is suppurating, whether tuberculous or purulent, is operated upon, the mortality and destruction of that joint will be reduced to a very small percentage, whereas, if not operated upon, the mortality ranges from eight to twelve per cent., and excisions or chronic sinuses lasting for years or for life will be found in a very large percentage of such cases, just what percentage I am unable to state. I know that in my clinic at the Post-Graduate Hospital, which is attended largely by patients from other clinics and hospitals, more than seventy-five per cent. of the patients have chronic diseases of the joints with abscesses involving the bones of the joint, and frequently of the pelvis, which have existed for years. Now, if such cases had been early examined and the abscess evacuated, the excisions which I am now obliged to perform could be avoided. The mortality from excision of the hip joint probably ranges as high as three or four per cent.

Certainly, then, such cases, if early operated upon, would be unattended with this mortality. Secondly, excision of the hip shortens the limb from two inches to two inches and a half. Now, if all joints with abscesses were early operated upon, as soon as a diagnosis was made, in my opinion, excisions would not be necessary once in a hundred times; whereas, if such abscess cases are not operated upon, excisions will result or should be performed in more than twenty-five per cent. of the cases.

Statistics from the Fifty-ninth street institution in New York show that abscesses occur in over sixty per cent. of the cases there treated. The same is true of the Forty-second street hospital. From the Children's Hospital in Boston, thirty-five per cent. Now, of these abscess cases—given a hundred—Nature will open and take care of probably fifty per cent., and satisfactory results will be obtained by mechanical treatment. Of the other fifty per cent., on account of the favorable opening of the abscess which permits of drainage, and under careful mechanical treatment, results will be obtained with limbs shortened from half an inch to two inches, with extreme atrophy from which the patient never recovers. These results will be obtained after years of mechanical treatment. Now, the other twenty-five per cent. will find their way into the various hospitals and dispensaries of the city, where they will be found to be suffering from disease of the liver and kidney, with extensive bone destruction, with dislocations of the hip, with shriveled and atrophied limbs, with great deformity necessitating excision in nearly every case. This is what I have observed during fifteen years of dispensary life in New York, and we might as well look the facts in the face now as at any other time.

The fifty patients who would have recovered could not possibly have received any injury by the incision and careful drainage because the antiseptic finger and the clean knife-blade could not possibly do the infected and suppurating joints any harm. No expert diagnostician could possibly determine which abscesses would take a favorable course and which might kill. The only possible chance of constitutional consequences would be through the denuded surface which was made by the knife, and, if the surgeon will thoroughly protect these surfaces by means which I shall enumerate later, that accident can never occur. *(To be concluded.)*

A Draught for Neuralgia.—The *Medicinische Woche* for July 2d gives the following formula:

℞ Ammonium chloride.........	30 grains;
Tincture of gelsemium........	7 drops;
Tincture of aconite..........	1 drop;
Extract of licorice...........	30 grains;
Water, enough to make.......	3 drachms.

M.

To be repeated three times, if necessary, at intervals of an hour at the beginning of an attack.

A RÉSUMÉ OF SOME PAPERS PRESENTED TO THE THIRTEENTH INTERNATIONAL CONGRESS OF THE MEDICAL SCIENCES.

(Continued from page 321.)

The following papers are abstracted from the *Comptes rendus* furnished by the *Agence centrale de la presse scientifique internationale.*

Section of Genito-urinary Surgery.

The Remote Results of Operative Treatment in Prostatic Hypertrophy.—Professor A. von Frisch, of Vienna, said that only those procedures tending to overcome directly the prostatic obstacle to free urination promised durable results. These were subpubic and perineal prostatectomy, lateral prostatectomy, and Bottini's galvanocaustic incision. Mercier's procedure had been abandoned as too dangerous. The durable effect of an operation was surer in proportion to the successful elimination of the obstacle, and to the degree to which the urinary canal remained free after cicatrization. It was evident that a procedure under the control of sight, such as the different prostatectomies, best satisfied these conditions; but these operations must be regarded as grave and exceedingly dangerous, considering the advanced age and feebleness of the subjects. Bottini's operation appeared less dangerous, though it was not so devoid of danger as some authors seemed to think; moreover, it was an operation "in the dark." Prostatectomy, even by galvanocaustic incision, furnished results often irreproachable, and very satisfactory from the point of view of duration. Even when the bladder was distended and its muscular wall had lost its contractility, the result might be perfect if the obstacle had been completely removed. There was, however, no precise line of conduct which could insure a durable result. Even if we endeavored to remove by prostatectomy as completely as possible, the parts of the prostate causing obstruction, the mechanical conditions which gave rise to obstruction were so variable in different cases that no method in use enabled us to deal with them in their totality. The durability of the results might later prove illusory in consequence of the formation of hard and hypertrophic cicatrices.

M. Legeu, of Paris, in his paper on the same subject, said that three orders of operations were practised to overcome prostatic hypertrophy, to treat its complications, or to check its evolution, viz.: 1. Testicular operations; 2. cystotomy; 3. prostatectomy.

Testicular operations had in view the induction of atrophy of the prostate, in consequence of the physiologic connections between the testicle and the prostate. For castration, an extreme measure, it had been sought to substitute, first, resection of vasa deferentia, and later, section of the vessels and nerves of the cord. Vasectomy and angeioneurectomy were not equal in value to castration. As to double castration, its ultimate results were considerably inferior to what early observations, too short and too incomplete, had led us to expect. After castration, atrophy of the prostate did not occur; there was simply a diminution in volume of the gland. The patients experienced some amelioration, by no means, however, proportional to the diminution in volume. This amelioration was characterized by disappearance of congestive attacks, by a return of vesical contractility, by the diminution of residual retention, and by the lessened frequency of catheterizations or micturition. When compared with the results of other treatment, castration did not give results proportionate to the extent of the sacrifice involved.

Cystotomy had in view the creation of an artificial meatus urinarius below the pubis. As a means of drainage it was an excellent operation, but to counteract difficulties of micturition due to local causes, its adoption was merely the substitution of one infirmity for another. The resulting power of continence was exceptional, and the bladder did not completely empty itself. Therefore cystotomy must remain an operation of exception.

Direct intervention on the prostate appeared more and more to be the coming treatment. Prostatic hypertrophy consisting of adenomatous and fibrous hyperplasia from which sprang secondarily all the vesical troubles, was amenable to measures of ablation such as were daily practised on other organs. Bottini's operation, an electrolytic prostatotomy, could not be finally judged for want of sufficient observation. The operation was, moreover, conducted in the dark, and frequent relapses witnessed the rapidity with which the opening caused by the galvanocautery was closed. Partial prostatectomy gave excellent results in partial hypertrophy, but was of no avail in total hypertrophy or against total stenosis of the prostatic canal. Total prostatectomy, alone, by suppressing the entire gland, was able to remedy all the inconveniences of hypertrophy. The facts did not yet permit us to appraise its value, but they were sufficient to justify us in looking forward confidently to its future in considering perineal prostatectomy, if practised early and before the supervention of the graver accidents, as the future operation of election.

Section of Pathology.

The Milk-curdling Ferment in the Gastric Juice.—Dr. Léon Meunier, of Paris, presented a process for the estimation of the milk-curdling ferment present in the gastric juice, and pointed out the clinical importance of the determination of this factor in various pathologic conditions of the stomach. The author first described a process based on the ease with which milk was coagulated by the gastric juice in the presence of calcium chloride. He took as a measure of the strength of the gastric juice the time required by the sample of juice under examination to cause complete coagulation of milk.

The method employed was described as follows: Into a series of test tubes are poured five cubic centimetres of solutions of gastric juice having a strength of ten per cent., one per cent., and one-tenth-of-one per cent. respectively. These are exactly neutralized by a decinormal solution of soda in the presence of litmus, and are then rendered slightly acid by the addition of a drop of decinormal hydrochloric acid solution. These solutions are mixed with five cubic centimetres of a one-per-cent. solution of calcium chloride and five cubic centimetres of a "special milk" described by the author, and heated over a water-bath to a temperature of 40° C. The tubes are observed every minute for ten minutes, and note is taken of the length of time required to coagulate the milk. The most reliable results are those noted between three and ten minutes.

From the results observed Dr. Meunier endeavored to determine the strength of the rennet, or milk-curdling ferment, present. A study of the effects of this ferment showed that under the conditions laid down above the time required by solutions of the same gastric juice in different strength for the coagulation of the milk was in direct proportion to the strength of the solution.

This proportion held good when the strength was sufficient to cause coagulation in from one to ten minutes, and especially in those cases in which the coagulum was formed in from three to ten minutes.

From his observations on this point the author stated that he had deduced a formula which might be stated thus: the strength of the gastric juice, (S), is equal to its dilution, (D), multiplied by 10 and divided by the number of minutes, (M), required for the sample to effect complete coagulation:

$$S = \frac{D \times 10}{M}$$

The second portion of his paper the author devoted to a study of the coagulation of milk. He found that the experiments above outlined produced different results with milk of different degrees of freshness, and that even where the samples of milk were drawn at the same time, those obtained from different cows acted in a different manner. He therefore employed samples of milk which had been first sterilized at a temperature of 115° C. in bottles of thirty cubic centimetres capacity. In practice he found that the use of ordinary commercial milk which had been well sterilized yielded results free from grave errors. Milk obtained from a large number of cows and then mixed and sterilized, produced results nearly approximating those obtained from milk specially selected by the author.

The latter portion of Dr. Meunier's paper was devoted to the clinical aspects of the subject. He had observed variations in the amount of the milk-curdling ferment present in forty-two cases where the stomach was in a pathologic state, the variations ranging from an entire absence of the ferment to the normal condition. From the results of his studies the author coincided with M. Boas in concluding that the disappearance of the ferment from the stomach indicated the disappearance of the secretory glands of the mucous membrane, or at least a diminution in their number. The author concluded that both for clinical and for chemical reasons it was desirable to determine the strength of the milk-curdling ferment in the examination of specimens of pathologic gastric juice, a determination which might easily be made by the process given by the author above.

On the Doctrine and Curative Method of Dr. Koch.—Dr. H. W. Middendorp's iconoclastic contribution is summed up as follows: 1. In human tuberculosis Koch's bacillus is not found constantly and regularly in the patients themselves, either in the miliary gray tubercles, or in yellow tubercle, in conglomerates or infiltrations, or closed softened foci of any organ whatever, or in tuberculous organs in which tubercles cannot be distinguished as such, *i. e.*, caseous lungs or kidneys, vertebræ and other carious bones, articular cavities, caseous lymphatic glands, etc. 2. These microbes are found constantly, by thousands and millions, only in pulmonary cavities communicating directly with the bronchi, and from the bronchi they reach the sputum of the tuberculous. 3. In some cases of self-infection and in infection by inhalation, both the one and the other coming from an open cavity, these bacilli are met from time to time in varying numbers, not only in the tubercles themselves, but also in the blood, the exudates and secretions, or widely scattered here and there in various organs without any tuberculous outbreak and even without local reaction. 4. These bacilli of Koch have absolutely no causative connection with tuberculosis, but are simply bacteria of putrefaction. 5. Also Koch's latest communication, of 1897, upon the presence and number of these bacilli in ordinary cases of human tuberculosis, as well as his opinion upon a sudden invasion of the latter in acute miliary tuberculosis, is in contradiction to the results of autopsy and experiment. 6. The so-called pure cultures of Koch's bacilli are not pure and have no value in a specific pathogenic sense, contaminated as they are by necrosing tuberculous matter which, of itself, is sufficient to occasion tuberculosis. 7. The bacterial nature of tuberculosis is not proved by Dr. Koch and his teaching on the cause of this disease is erroneous. 8. The curative method, as all others based upon the properties of these bacilli and their pretended causal relation with tuberculosis, has no scientific foundation. It is without utility, and is, moreover, harmful and dangerous, the latest tuberculin (T. R.), of 1897, being in yet a higher degree more dangerous than the first, of 1890.

Section of Surgery.

Gastro-enterostomy.—Dr. Monprofit, of Angers, said that gastro-enterostomy might advantageously be applied as a palliative in cases of malignant disease of the stomach not affecting the pylorus. Instead of opposing this operation to gastrotomy it would be better to determine their respective spheres. Voluminous, extensive, adherent tumors were not so often removed nowadays. It was in such cases that gastro-enterostomy rendered marked benefit. On the other hand small, limited, and mobile tumors of the pylorus might be removed with excellent results. The procedures employed had been, in succession, Wölfler's anterior gastro-enterostomy, which did not always give good results; then those of Von Acker and of Roux. Murphy's button and Souligoux's method of anastomosis, he said, had their advocates; but the author had always preferred sutures which in his hands had given the best results. The author's practice was not to lock up the bowels, but to content himself with guarding carefully the abdominal cavity. When the stomach was much distended by liquids it was emptied by a rubber tube introduced through a puncture in the mucosa before the incision was completed. After Roux's example the patients received aliment as soon as possible, liquid at first, but solid food after the first few days.

Splenectomy in Malarial Enlargement of the Spleen. With Sixteen Cases.—Dr. Michaïlowsky, of Sofia, wished to add the results of his own sixteen cases to the thirty of M. Jonnesco, as evidence that splenectomy was an operation of comparative benignity and excellent results, and that the cachectic symptoms disappeared after its performance. To those who counseled its rejection he said that it lay with them to furnish a series of suitable hygienic measures, efficacious of themselves, to assist the organism to triumph over the disease. Medical treatment up to date was null, or at best applicable to a limited number of individuals specially favored by fortune. It was nearly inaccessible to the great number of unfortunates affected with this form of malarial disease, who could only maintain existence by hard work that was, for the most part, unhygienic also. There was ample clinical proof now existing on the other hand of the safety of splenectomy and the excellent results attainable thereby. Comparative blood studies after the operation showed that the blood changes induced were only transitory and that the normal state was restored in a few months. The author took his position on the right of the patient, but did not agree with M. Jonnesco in giving preference invariably to the median incision. He had recourse to a lateral incision when the spleen was fixed and adherent. He believed that by the lateral incision the operator fell exactly midway between the adhesions which were especially liable to development in the region of the spleno-phrenic ligament, and were nearly always very vascular, and the splenic pedicle. The advantages of a lateral incision became obvious at the time of operation; it alone enabled one to avoid ill-timed traction. In case of hæmorrhage the splenic vessels with the end of the pancreas were seized in the left hand and the pedicle ligated by an assistant. On large pedicles two ligatures were placed a centimetre apart and each vessel tied separately. The abdominal wound was closed by three layers of silk sutures. The intestine was kept at rest by opium for the first two days, and in case of great feebleness injections of artificial serum were given.

Bleeding of the nose had been observed in young subjects after the operation, but no glandular enlargement or other disturbance of the hæmato-poietic system. Pregnancy, he said, was not a bar to operation, as he had successfully removed the spleen from a pregnant woman threatened with abortion. The health of his patients, seen a year or more after operation, was excellent. They were improved almost out of recognition. The only death was due to an accident and in no way attributable to the operation.

Nirvanine in Surgery.—Dr. J. Braquehaye, of Tunis, said that he had practised local anæsthesia with nirvanine about a hundred times with excellent results, save in cicatricial tissues or those highly inflamed. He had operated by its means in two abscesses of the liver and in a colpo-perineorraphy for uterine prolapsus. He made use of a five-per-cent. solution of which he injected ten cubic centimetres, and even more, without having perceived any symptoms of intoxication. Before operating he injected one cubic centimetre of a glycerinated solution of extract of suprarenal capsule, in order to avoid during the operation the oozing that nirvanine causes. Anæsthesia from the dose named was as good as with cocaine and its duration was longer. Nirvanine had antiseptic properties in ordinary doses without being caustic. It could be sterilized many times without losing its anæsthetic properties. Being less toxic, it was better in cardiac and very enfeebled patients, for whom cocaine was dangerous. This property also made it suitable for direct injections into the rhachidian canal, such as are practised to obtain anæsthesia.

Two Cases of Cold Abscess of Vertebral Origin, Occurring in Young Subjects and Resulting in Cure.—Dr. Amerigo Benevento da Rotello, of Campobasso, Italy, presented two observations of cold abscess of vertebral origin the diagnosis of which had been variously attributed by confrères to rheumatism, gastrointestinal troubles, malaria, and sciatic or crural neuralgia. The true diagnosis in the first case was an abscess of the external part of the left thigh having its starting point in the first lumbar vertebræ. The sac was freely incised and it was found that the pus came from above. On following the muscular sheath it was found coursing from the pelvis to a point behind the neck of the femur. The second case was a similar abscess in the left lumbar region diffusing itself, from a tuberculous focus in the third and fourth lumbar vertebræ, in the left iliac fossa. These two cases were completely cured, for both patients have followed their vocations in the country without discomfort, in one case for one, in the other for two, years after operation. The author insists on the necessity of diagnosis. Such cases are most often tuberculous, and are to be no longer held aloof from, but treated by free incision rather than by aspiration, even with antiseptic lavage, for the morbid process may continue and the abscess be reproduced. In the second case weak injections of Lugol's solution were used with good results.

Section of Gynæcology.

Abdominal Myomectomy.—Dr. A. Monprofit, of Angers, said that myomectomy was indicated in women still capable of childbearing, and in cases in which it was possible to leave, after ablation of the fibromas, a utero-ovarian apparatus in a condition to exercise its functions normally. It was contraindicated in patients too aged to become pregnant, and even in young women when there was no possibility of leaving a *useful* uterus. In these cases, other operations, particularly total abdominal hysterectomy, were indicated. The gravity of this operation did not appear to be greater than that of other intervention in fibroma. The great advantage of myomectomy was that it left in place a utero-ovarian apparatus capable of discharging its functions, and permitting normal pregnancies, as had been observed. It resulted from these considerations that total hysterectomy should not be done in young women save when it was impossible to conserve the uterus.

Section of Physiology.

Nervous Vomiting and its Treatment.—Dr. J. Bendiersky, of Kiev, said that while it was not, perhaps, scientific to speak of vomiting as a disease *per se*, it was convenient, as in the case of asthma nervosum, at times to deal with it as such. In the cases alluded to, men, women, and even youths, were attacked. The vomiting supervened without any obvious cause, frequently without any premonitory nausea, most often after a meal, but occasionally even fasting, and with varied frequency, in some once or twice a day, once every two or three days, or every two or three weeks; but some vomited from fifty to a hundred times a day and even oftener. The patient might be talking to you and begin all of a sudden to vomit. He might be walking in the street and vomit repeatedly during his walk. Although these patients threw up nearly all the aliment taken by them, they did not seem, even when the malady persisted, to lose flesh proportionately. The arsenal of tonics and nervines, bromides, narcotics, hydrotherapy, electricity, etc., generally recommended had failed in the author's hands to give satisfactory results. He therefore began to use lavage of the stomach with the best results. The author then related in detail fourteen cases of nervous vomiting treated by lavage. The patients had been under subsequent observation for long periods, in some cases for years. He had found that lavage gave excellent, permanent and almost specific results. Its *modus operandi* consisted probably in a favorable action upon the terminal nerve filaments of the mucosa, aided, perhaps, by an element of suggestion. Its results were attained in less than a month.

The Action of Currents of High Frequency (Arsonvalisation) on the Reducing Activity of Oxyhæmoglobine, i. e., upon the Activity of Gaseous Exchanges.—Dr. Tripet said that for more than two years he had observed a series of patients of Dr. Apostoli before, during, and after their treatment by currents of high frequency. Examination of the blood was practised by Hénoch's hæmatospectroscope, and the activity of reducing power investigated by his method of elastic ligature of the thumb. The results of the treatment by currents of high frequency were divided by the author into four groups, as follows:

1. In thirty-seven cases the currents augmented the reducing activity of hæmoglobine, as was particularly shown in subjects of lowered nutrition (rheumatism, uterine fibroma, etc.).

2. In ten cases in which, before treatment, the reducing activity was exaggerated, the currents determined a reduction of this activity toward the normal.

3. In only six cases in which an organic fall continued, did the reducing activity of the oxyhæmoglobine, in spite of the treatment by high frequency currents, continue to fall.

From these facts the author draws the following conclusions: In diseases of nutrition, the treatment by currents of high frequency (arsonvalisation) is a *regulator* of the reducing activity of oxyhæmoglobine. In those cases in which this activity is reduced below normal, it increases this activity and keeps it definitely in the region of normal. In cases of exaggerated activity, as in diabetes for instance, the treatment diminishes the activity, causing it to fall to normal.

Of the Intimate Nature of Poisons on the Nerve.—Professor N. E. Wedensky, of the University of St. Petersburg, said that there was a constantly increasing number who regarded the fundamental properties of the nerve, excitability and conductibility, as essentially different from one another. This view depended specially upon the fact that when many poisons were applied to the same part of a nerve they produced in it a diminution of excitability without in the least affecting the transmission of nervous impulses. The author's experience showed that this position was not correct, being established by the application of *minimal* stimuli to the nerve. Now *minimal* excitations are the last to disappear in the altered part of a nerve. At a time when their transmission is still possible, the conduction of strong impulses is already totally suspended in the poisoned part of a nerve. This result is demonstrated alike by the telephone, the galvanometer, and the muscle. All these three indicators of a poisoned nerve manifest perfect parallelism, which must also cause the rejection of a recent assertion according to which by the action of poisons (chloralose) the excitability of the nerve could be abolished, while its property of furnishing active currents was preserved.

The most important question which arose from the author's experiments was to know how to interpret this original condition of a nerve in which feeble impulses were transmitted, while strong ones were not. The author has concluded that it is not simply a passive state, but, on the contrary, one of special excitation, with which the irritations applied directly to the altered part of the nerve have as much to do as impulses arising from the other unaltered parts of the nerve. This conclusion follows especially from the following facts: *a.* The rhythm of tetanic excitations undergoes a transformation during their passage in the altered course of the nerve; *b.* later, when the transmission of strong impulses is suspended in this course, these impulses produce in the nerve inhibitory phenomena in relation to the effects of the irritation applied directly to this part of the nerve. Whence the most important questions concerning the intimate nature of nerve processes in general attach themselves to the study of this particular state of the nerve altered by the action of poisons.

Therapeutical Notes.

Cod-liver Oil Enemata. — Dr. Zenner, of Berlin (*Therapeutische Monatshefte,* 1900, No. 6; *Wiener klinische Wochenschrift,* June 28th), recommends the following formula for an emulsion to be used as a nutritive enema in tuberculous disease:

℞	Pancreatin	75 grains;
	Inspissated ox-gall	8 "
	Sodium chloride	22 "
	Water	1½ ounce;
	Yellow cod-liver oil	8 ounces;
	Oil of eucalyptus	3 drops.

The last-named ingredient is to be added after the others have been digested together for two hours.

After an evacuant enema, from an ounce and a half to two ounces should be injected slowly into the rectum with the patient in the knee-elbow posture.

For Chilblains.—Dr. J. H. Vadikin (*Medical Brief; Dublin Journal of Medical Science,* June) recommends for chilblains a stupe consisting of one teaspoonful of acetate of zinc to a bowl of hot water. He has tried it very successfully.

Working Solutions of Formalin.—Dr. G. E. Crawford (*National Medical Review,* July) in an article on Formalin as an Antiseptic in General Surgery, Gynæcology, and Obstetrics gives the following formulæ. The four per cent. solution is thus made:

℞	Formalin	5 ounces;
	Sterilized water	7½ pints.

M.

From this the following working solutions may be readily prepared:

One-eighth-per-cent. Solution.—Half oz. 4 per. cent. solution to 15½ oz. water, equals ⅛ per cent. formalin or 1 in 2000 formaldehyde.

One-quarter-per-cent. Solution.—One oz. 4 per cent. solution to 15 oz. water, equals ¼ per cent. formalin or 1 in 1000 formaldehyde.

Three-eighths-per-cent. Solution.—One and one-half oz. 4 per cent. solution to 14½ oz. water, equals ⅜ per cent. formalin or 1 in 666 formaldehyde.

One-half-per-cent. Solution.—Two oz. 4 per cent. solution to 14 oz. water, equals ½ per cent. formalin or 1 in 500 formaldehyde.

Five-eighths-per-cent. Solution.—Two and a half oz. 4 per cent. solution to 13½ oz. water, equals ⅝ per cent. formalin or 1 in 400 formaldehyde.

One-per-cent. Solution.—Four oz. 4 per cent. solution to 12 oz. water, equals 1 per cent. formalin or 1 in 250 formaldehyde.

Bryonia Alba as a Uterine Hæmostatic.—According to the *Journal de Médecine de Paris* for July 1st, Petresco avers that the root of bryonia alba possesses hæmostatic properties analogous to those of ergot and hamamelis virginica. From 300 to 375 grains of dry root are boiled in 4,500 grains of water until reduced to 2,250 grains; then filtered and sweetened. This quantity may be taken in three or four divided doses at intervals of half an hour. Chemical investigations by M. Urbenu show that several resinous principles and glucosides may be obtained in alcoholic or watery extracts whose energy varies in intensity, but whose therapeutic action appears to be identical. The most energetic has been named bréine. The author has also employed the aqueous and alcoholic extracts in pills, potions, etc., the dose being from 15 to 45 grains in a day. With the alcoholic extract especially, in daily quantities of from 30 to 45 grains, the author has obtained good results not only in metrorrhagia, but also in epistaxis and hæmoptysis.

The Treatment of Heats and Flushings Due to the Menopause.—The *Revista de Medicina y Cirurgía prácticas* for July 14th, citing the *Bullétin Médical,* says that these heats are more pronounced and vexatious in the premature and artificial menopause produced by double castration. Opotherapeutic preparations are costly and very often ineffective. Dr. Gottschalk recommends a more efficacious and simple measure, which consists in taking every evening regularly a full hot bath at a temperature of 104° F., lasting twenty minutes. After a few baths great improvement is noticeable, and after some twenty-six to twenty-eight a cure is obtained.

Arsenic in Scarlet Fever.—Semtschenko (*Medical Age,* July 25th) has experimented with arsenic, exhibited in cases of scarlet fever, according to the plan advocated by Speransky, and reports very favorable results from the use of Fowler's solution given in from one-fourth- to one-drop doses, according to the patient's age. He has noted a decrease in the virulence of the disease, and the absence of serious complications, but has been unable to confirm the prophylactic efficiency which has been claimed by Speransky for arsenic in scarlet fever cases.

A Vaginal Irrigation for Leucorrhœa.—Lutaud is credited by the *Kansas City Medical Record* for August with the following:

℞	Chlorate of potassium	12 grains;
	Wine of opium	10 minims;
	Tar water	5 drachms.

M.

Add two or three drachms to a quart of warm water.

Methylene Blue in Gonorrhœa.—According to the *Interstate Medical Journal* for August, methylene blue, administered internally in grain doses, in capsules, is said to be giving good results in the treatment of gonorrhœa. The urine is changed into an antiseptic solution in excreting the drug, and takes the place of injections applied from without.

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THE CHOICE OF THE FOOT IN PODALIC VERSION.

IT is no new matter that the ease with which either the right or the left foot of the fœtus can be seized and brought down is not the only thing to be thought of in making the choice. A more important point is the bearing of the selection on the chances of maintaining the dorso-anterior position or of securing an eventual rotation into that position. In his usual precise way Dr. D. Berry Hart recently discussed this subject, in connection with the nomenclature of transverse presentations and of version, in a paper read at a meeting of the Edinburgh Obstetrical Society, an abstract of which is given in this issue from the *Scottish Medical and Surgical Journal* for July. He remarked that the terms applied to version related either to the method by which it was to be performed, or to the fœtal pole which it was intended to bring down; such terms as bipolar and external applied to the method, whereas podalic and cephalic applied to the aim.

Dr. Hart cited Nagel as having given by far the most complete discussion of the question of which leg should be seized, considering it not merely from the point of view of the accomplishment of the version, but also from that of preserving a favorable position of the fœtus or correcting an unfavorable one, thus taking the standpoint of Baudelocque, Hohl, and Gusserow. Dr. Hart summed up his own views in the following words: "Seize the knee or leg which maintains the dorso-anterior position or converts the dorso-posterior into a dorso-anterior—that is, take the farther limb in dorso-posterior cases, the nearer in dorso-anterior cases. When, however, in dorso-anterior cases the breech is in the fundus traction on the nearer leg may convert it into a dorso-posterior, and when the breech is near the os in dorso-posterior position traction on the farther leg may not alter the posterior position of the back after version, owing, again, to the want of the necessary obliquity in the pull." It would be interesting to know in what percentage of dorso-posterior cases the position fails of correction after version by the method laid down by Dr. Hart, and also with what expectation of success means may be taken by either concurrent or subsequent manipulation to prevent such failure.

QUININE IN THE TREATMENT OF CANCER.

To note the beneficial action of non-operative measures in cases of malignant disease is to raise false hopes in the mind of many a victim of the disease, with the result that surgical intervention is delayed until it comes too late to prove more than palliative. Nevertheless, when such a well-known surgeon as M. Jaboulay, of Lyons, reports cases of the disease strikingly benefited by the use of quinine, and shows a patient to prove it, as he did at a recent meeting of the Lyons Society of Surgery (*Indépendance médicale,* August 8th), what he has to say can hardly be allowed to pass without mention. The patient whom he showed was a woman thirty-eight years old who had discovered a tumor of the upper portion of her left breast nearly three years before. It grew slowly, but continuously. She put herself under M. Jaboulay's treatment early in June of the present year. The tumor was then on the verge of ulceration; the skin covering it was of the color of wine lees, hot, tense, congested, and with a little pimple or excoriation on its central portion. It was feared that an operation was urgently called for to prevent impending hæmorrhage. There were enlarged axillary and infraclavicular glands on the left side. On the 7th of June thirty grains of quinine dihydrochloride were injected—into one of these collections of enlarged glands, we judge from the account. On the following day the skin over the inner aspect of the tumor was less tense. For ten days the injections were continued in daily amounts of from fifteen to twenty-three grains. Gradually the skin over the outer aspect became wrinkled, and finally the central portion showed signs of regression. After that, the injections were given irregularly, alternating with the administration of quinine by the mouth.

At the time that M. Jaboulay showed the patient, twenty-eight days after the beginning of the treatment, the tumor had diminished more than a third in size, both in its tense and red part and in that portion which was imbedded in the mammary gland. Where the skin had at first been of the color of wine lees it had become of a pale blue tint, the tension had given place to withering and wrinkling, and the general appearance of the growth was that of an old apple or a dried tomato, although here and there the skin was of its natural character. The axillary glands were no longer larger on the left side than on the right. The enlarged infraclavicular glands were fewer in number and of reduced volume. M. Jaboulay stated that he showed this patient, one out of a number in whom the efficiency of quinine against cancer had been manifested, because the appearance of the tumor told its own story, so that one need not have examined it previously to be convinced.

THE ABUSE OF THE TERM NEURASTHENIA.

While we may be allowed to inform Dr. Ippoliti, of Bologna, whose article on this subject is published in the *Gazzetta degli ospedali e delle cliniche* for July 15th, that the word neurasthenia was not coined by the late Dr. George M. Beard, of New York, having figured in literature before Dr. Beard was born, we cordially agree with our Italian *confrère* that the term is far too often made to serve as the name of a disease, although actually the group of morbid phenomena for which it stands may be of the most diverse ætiology. The term is less misleading than "spinal irritation," for example, which was so rampant only a few years ago, but it is not a whit more expressive than "nervous exhaustion," which, though dear to the laity, is deservedly in disfavor with medical men. Still, we doubt if the frequent use of some such term can well be avoided, for it covers so many instances in which a radical diagnosis has not been made, and may be unattainable short of a post-mortem examination.

Numerous terms are in use because they have come to have a well-known conventional meaning, which meaning may have but little if anything to do with their original signification, or because they have been used in a particular sense by a forcible writer. Such a writer was the late Dr. Beard, who, although, as we have already intimated, he did not coin the word neurasthenia, affixed it to such graphic descriptions of nervous disorder as will forever remain classical. We can hardly eliminate from our accustomed speech any terms employed by Laennec in his writings on auscultation and percussion, or by Virchow in his treatment of pathological subjects, or by Sims in his creation of modern gynæcology, but we need not blindly attach to them the etymological value that they may seem to have had in their authors' or expounders' minds. So long as the meaning of a term is widely accepted and understood, even if it rests on a flimsy basis, no harm is done by continuing to use it.

THE COSMETICS OF THE MAMMARY GLAND.

Some months ago we chronicled the implantation of a convenient fatty tumor beneath the skin of a mammary gland that had been removed. An Italian surgeon, Dr. E. Dominici, has gone a step further in proposing a crucial incision making flaps which may be so puckered in the suturing as to give rise to a nipple-like projection. He even suggests the formation of a mock areola by tattooing with a mixture of carmin and India ink. His article appears in the *Gazzetta degli ospedali e delle cliniche* for August 12th.

THE SCAPULO-HUMERAL REFLEX.

Discoveries of reflexes are multiplying. One elicited by percussion over the inner border of the scapula, especially toward its lower extremity, is described by Bechterew (*Neurologisches Centralblatt*, 1900, No. 5; *Clinica moderna*, August 8th) as manifested by adduction and slight outward rotation of the arm. It is said to be impaired in muscular dystrophies and exaggerated in hemiparesis and cerebral hemiplegia.

A PROPOSITION TO POISON OUR SAILORS.

It is astounding that an officer of Captain Sigsbee's experience should have made such a suggestion as that of adding tartar emetic to the paint used on the ships of the navy, from which, it appears, the sailors are able to obtain alcohol. The surgeon-general has most properly advised against its adoption, saying that it might cause the men's death.

AN ATTEMPTED PURCHASE OF A TITLE.

The *Province médicale* for August 4th copies from the *Temps* an account of a young German doctor's having paid to a certain individual the sum of 12,000 marks for obtaining for him the title of Sanitätsrath, which, however, the person to whom the money was paid failed to do, but, to make amends, arranged to mortgage his son's property to the doctor. The son, knowing nothing of the previous transaction, demanded the 12,000 marks from the doctor and gave him the lie when he explained that he had paid the father, and was answered with a blow. The whole story strikes us as exceedingly improbable.

THE CALMETTE SERUM IN THE UNITED STATES.

In our issue for August 11th we mentioned an instance of the use of Dr. Calmette's anti-venomous serum in Pike County, Pa., and added that it was the first one in the United States. In this we were mistaken. Surgeon J. J. Kinyoun, of the Marine-Hospital Service, now on duty at the San Francisco quarantine station, writes to us that in February, 1899, he administered the serum to a man who had been bitten by a moccasin, and with striking results.

THE BRITISH MEDICAL SERVICE IN SOUTH AFRICA.

It is announced from London that Mrs. Richard Chamberlain, a sister-in-law of the Right Hon. Joseph Chamberlain, the secretary of state for the colonies, who has lately returned from South Africa, declares that Mr. Burdett-Coutts's allegations of hospital mismanagement are true. We believe, however, that the lady is mistaken.

ITEMS.

Infectious Diseases in New York.—We are indebted to the Sanitary Bureau of the Health Department for the following statement of cases and deaths reported for the two weeks ending August 25, 1900:

Diseases.	Week end'g Aug. 18		Week end'g Aug. 25	
	Cases.	Deaths.	Cases.	Deaths.
Typhoid Fever	50	12	51	14
Scarlet Fever	47	2	51	3
Cerebro-spinal meningitis	0	6	0	7
Measles	51	6	37	5
Diphtheria	172	33	120	28
Laryngeal diptheria (croup)	3	0	6.	4
Tuberculosis	181	154	189	115
Chicken-pox	5	0	1	0
Small-pox	1	0	0	1

Marine-Hospital Service Health Reports.—The following cases of small-pox, yellow fever, cholera, and plague were reported to the surgeon-general during the week ending August 25, 1900:

Small-pox—United States.

Cape Nome, Alaska	Aug. 18	6 cases.	
Oakland, California	July 7-14	2 "	
Wichita, Kansas	Aug. 11-18	2 "	
New Orleans, Louisiana	Aug. 11-18	5 "	7 deaths.
Lowell, Massachusetts	Aug. 11-18	2 "	
Minneapolis, Minnesota	Aug. 11-18	2 "	
Winona, Minnesota	Aug. 7-21	7 "	
New York, New York	Aug. 11-18	1 case.	
Cincinnati, Ohio	Aug. 10-17	5 cases.	
Cleveland, Ohio	Aug. 11-18	12 "	
Dayton, Ohio	Aug. 11-18	6 "	
Portsmouth, Ohio	Aug. 11-18	1 case.	
Salt Lake City, Utah	Aug. 11-18	1 "	
Tacoma, Washington	Aug. 4-11	1 "	

Small-pox—Foreign.

Rio de Janeiro, Brazil	June 30—July 13		13 deaths.
Port Limon, Costa Rica	Aug. 8	1 case.	
Liverpool, England	July 31—Aug. 4	7 cases.	
London, England	July 21—Aug. 4	18 "	
Lyons, France	July 22-29	1 case.	
Paris, France	July 14—Aug. 4		5 deaths.
Bombay, India	July 10-24		11 "
Calcutta, India	July 7-21		26 "
Malta	June 16-30	11 cases.	1 death.
City of Mexico, Mexico	Aug. 5-12	3 "	3 deaths.
Vera Cruz, Mexico	Aug. 4-11		1 death.
Moscow, Russia	July 21-28	1 case.	
Madrid, Spain	June 30—July 23		77 deaths.
Singapore, Straits Settlements	June 30—July 7		1 death.

Yellow Fever.

Rio de Janeiro, Brazil	June 30—July 13		4 deaths.
Cienfuegos, Cuba	Aug. 17	1 case.	
Bocas del Toro, Colombia	July 20—Aug. 3	4 cases.	2 deaths.
Panama, Colombia	Aug. 6-13	3 "	1 death.
Havre, France	Aug. 9	1 case on steamship *Caravelles*, from Senegal, Africa.	

Cholera.

Bombay, India	July 10-17		239 deaths.
Calcutta, India	July 7-21		105 "
Madras, India	July 14-20		3 "
Osaka and Hiogo, Japan	July 21-28	1 case.	1 death.
Yokohama, Japan	July 7-28	2 cases.	2 deaths.

Plague.

Sydney, Australia	June 30—July 14	4 cases.	
Rio de Janeiro, Brazil	June 30—July 13	74 cases.	31 deaths.
Bombay, India	July 10-17		60 deaths.
Calcutta, India	July 7-21		107 "
Formosa, Japan	June 21—July 12	82 cases.	63 "

Marine-Hospital Service.—*Official List of the Changes of Station and Duties of Commissioned and Non-Commissioned Officers of the United States Marine-Hospital Service for the Seven Days ending August 23, 1900:*

PURVIANCE, GEORGE, Surgeon. To report at Washington for special temporary duty. To proceed to Baltimore Quarantine Station as inspector.

CARTER, H. R., Surgeon. Granted leave of absence for twenty days from August 24th.

WHITE, J. H., Surgeon. To proceed to Baltimore Quarantine Station as inspector.

MCINTOSH, W. P., Surgeon. Granted leave of absence for seven days.

THOMAS, A. R., Passed Assistant Surgeon. Granted leave of absence for one month from September 15th.

COFER, L. E., Assistant Surgeon. Granted leave of absence for one month and ten days from September 21st.

BROWN, B. J., Acting Assistant Surgeon. Granted leave of absence for fourteen days from August 12th.

MCKAY, W. W., Acting Assistant Surgeon. Granted leave of absence for four days.

STATON, LEE W., Acting Assistant Surgeon. Granted leave of absence for ten days from August 12th.

LAGRANGE, J. V., Hospital Steward. Granted leave of absence for ten days from September 11th.

Appointment.

GEORGE A. MORRIS, of Michigan, appointed junior hospital steward August 15, 1900.

Naval Intelligence.—*Official List of Changes in the Medical Corps of the United States Navy for the Week ending August 25, 1900:*

NORTON, O. D., Surgeon. Detached from the *Monocacy* and ordered to duty with the marine regiment in China.

PICKRELL, G., Surgeon. Detached from the Naval Hospital, Yokohama, Japan, and ordered to the Cavite Naval Station.

VON WEDEKIND, L. L., Passed Assistant Surgeon. Ordered to temporary duty at the headquarters of the Marine Corps, Washington, and then to the *Richmond*.

WAGGENER, J. R., Medical Inspector. Transferred from the Naval Hospital, Cavite, Philippine Islands, to the Naval Hospital, Yokohama, Japan, for treatment.

DOUGLASS, S. W., Pharmacist. Detached from the *Massasoit* and ordered to the Key West Naval Station, Florida, immediately.

Army Intelligence.—*Official List of Changes in the Stations and Duties of Officers serving in the Medical Department, United States Army, from August 18 to August 25, 1900:*

CARTER, HENRY R., JR., Acting Assistant Surgeon, will report to the commanding officer of Vancouver Barracks, Washington, for temporary duty during the absence of TESSON, L. S., Major and Surgeon.

GIBSON, ROBERT J., Major and Surgeon, is ordered to duty as attending surgeon and medical superintendent of the army transport service in San Francisco, and as sanitary inspector of the department, to relieve

Arthur, William H., Major and Surgeon, who will take station in San Francisco, awaiting transportation to Taku, China.

Higgins, Aubrey F., Acting Assistant Surgeon, will report to the commanding general, Department of California, for duty with troops destined for the Philippine Islands.

Ives, Francis J., Major and Surgeon, United States Volunteers, is assigned to temporary duty in San Francisco, awaiting transportation to China.

Roberts, William M., Acting Assistant Surgeon, is ordered to temporary duty at the Army General Hospital, Presidio of San Francisco, awaiting transportation to the Philippine Islands.

Shaw, Henry A., Captain and Assistant Surgeon, is ordered to Nagasaki, Japan, for duty at the United States General Hospital to be established at that place.

Whitney, Walter, Acting Assistant Surgeon, will accompany the first battalion of the Fifth Infantry to San Francisco, and return to Fort Sheridan, Illinois.

Association of Hospital Superintendents.—The second annual convention of the Association of Hospital Superintendents was held in Pittsburg, Pa., on August 21st to 23d at the Hotel Schenley. The convention was presided over by J. S. Knowles, superintendent of the Lakeside Hospital, Cleveland, the other officers of the association being C. S. Howell, of the West Penn. Hospital, Pittsburg, secretary, and A. W. Shaw, of Detroit, treasurer. An interesting statistical paper on the growth and development of hospitals in the United States during the past three years was read by T. Sutton, of Detroit, who stated that during the past three years about $245,000,000 has been spent in the United States in the erection and equipment of new hospitals, in enlarging and improving old hospitals and in general expenses. Over 1,000 new hospitals were built during that time, a gain of 65 per cent. The approximate cost of these buildings was $50,000,000.

There are now about 2,500 hospitals and asylums proper in the United States which employ about 65,000 persons in various capacities. The hospitals pay yearly in salaries about $23,332,000. Over 1,600,000 patients are annually treated and 37,500 physicians attend them.

Probably the most interesting part of hospital management is the purchasing of supplies. The amounts of various staple articles used in all the hospitals are appalling. The author gave the following figures: "There are during the year 112,000,000 dozen eggs used, 165,000,000 pounds of butter, 68,000,000 pounds of coffee, 8,000,000 pounds of tea, 332,000,000 gallons of milk, 285,000 barrels of flour, 550,000 barrels of sugar, 1,148,000,000 pounds of fresh meat and 2,000,000 pounds of oatmeal. Seven hundred and fifty thousand dollars' worth of soup was consumed. In all of the hospitals there are 300,000 beds."

Some of the more important papers read during the convention are as follows: "Hospitals and Dispensaries; their Uses and Abuses," by J. S. Knowles; "Some Responsibilities of a Superintendent," by C. S. Howell, of Pittsburg; "Hospital Ventilation and Sanitation," by Lewis R. Curtis, of Chicago, and "Civil Service as Applied to Municipal Hospitals," by Dr. Duryea.

The membership of the association now numbers about one hundred, although it was organized only a year ago.

Following is the list of officers elected for the ensuing year: Chairman, Charles S. Howell, of Pittsburg; vice-chairman, Dr. Baker, of Newark, N. J.; secretary, J. S. Knowles, superintendent of Lakeside Hospital of Cleveland, and treasurer, A. W. Shaw, of Detroit. The next meeting will be held in New York at a date yet to be named.

A Business Association Formed by Detroit Physicians.—A "Physicians' Business Association" has been formed in Detroit to promote professional and fraternal goodwill; to correct the abuse which the profession has long suffered through non-payment of legitimate fees; to agree upon a uniform fee bill, and to regulate the relations of the members to each other and to the public hospitals, dispensaries and public charities. It is also proposed to found a mutual aid fund for members in full standing. The affairs of the association are to be conducted by the officers and a board of governors, which will be composed of one representative from each ward of the city, each governor to be elected by the physicians residing within the ward which he represents. Should any physician decline to join the organization after being duly solicited the members will be forbidden to consult with the offender. It is proposed to circulate each month among the members of the association, a printed "black list" of persons who refuse to pay their physician's bill. It is reported that nearly 400 signatures to the call for organization have already been secured. A preliminary meeting which was held at the Hotel Cadillac was presided over by Dr. J. J. Mulheron; Dr. W. J. Cree acting as secretary.

To Establish a Medical School in Dallas.—At a meeting of physicians held in Dallas, Texas, recently, to discuss a proposal to establish a medical school in that city, a majority of those present voted against the establishment of a school. Notwithstanding this, however, a number of the physicians present waited until after the adjournment of the meeting and held a supplementary meeting, at which committees were appointed to formulate plans for the establishment of a medical school in Dallas.

The New German Pharmacopœia.—The fourth, revised, edition of the German pharmacopœia has just been published. It contains 628 articles, of which 26 are new, while ten articles official in the third edition have been dropped in this.

New Hospitals and Hospital Buildings.—The St. Louis Hospital Commission has recommended that an emergency hospital should be erected on the Carroll street site, and a hospital for chronic cases on Arsenal street. The president of the board of public improvements has also expressed himself in favor of this solution of the hospital question.—The corner-stone of a new building for St. Thomas' hospital was laid in Nashville, Tenn., on August 10th with imposing ceremonies. The building, when complete, will occupy an entire block. It is expected that it will be ready for occupancy next spring.—Bids were opened on August 14th for the construction of contagious wards and an administration building on the grounds of the Newton, Mass., hospital.—A permit has been issued by the building inspector of Wilmington, Del., for the erection of the new building of the Delaware Hospital, which is to cost $26,700.—The plans for a three-story hospital building for the Medicochirurgical Hospital of Philadelphia have been approved, and are now open for inspection in the offices of William Steele & Sons. The building, which is to be located on Cherry street between Seventeenth and Eighteenth streets, will be three stories high, built of stone, brick and iron, trimmed with terra cotta, having cement flooring, electric lighting, steam heating, etc.—The old Homœopathic Hospital, in Cumberland street, Brooklyn, has been turned over to the city, which has issued bonds to the amount of $70,000 for the proceeds of the sale by which the debts of the institution are to be paid off, and the sum of $75,000 is to be expended in repairing the buildings. It is expected that some three months will be required in which to make the necessary repairs.—An addition is to be made to the Meadville, Pa., hospital for the accommodation of patients suffering from contagious diseases. —The new emergency hospital at 16 Orange street, Worcester, Mass., is now open for the reception of patients. Dr. C. B. Learoyd is in charge as resident physician. The hospital is supported by the sale of $1 certificates, which entitle the holders to receive either medical or surgical treatment, or both. The certificates are good for one year, and any number of visits may be made during that year. Persons who have been injured in accidents will be given the first treatment free, whether holding certificates or not.—The contract for the erection of the new hospital at Titusville, Pa., has been let at $14,500. The building will be 47 x 90 feet on the ground, two and one-half stories high.—The contract has been awarded for the enlargement of the buildings of the Virginia hospital at Richmond. The plans include the erection of a large brick building independent of the present buildings, to be used principally for charity patients, and another story to be added to the present hospital building, which will be occupied by the nurses. The cost of the improvements will be between $20,000 and $30,000. —A new building is being erected for the Lutheran hospital in New Orleans, La., which will double the present capacity of the institution.—A new hospital building costing $30,000 is to be erected by the county authorities near Weyauwega, Wis., on the Wisconsin Central Railroad. The hospital is to have a capacity of 125 patients. —Mrs. Phebe Hearst, mother of the millionaire journalist, has given $1,000 toward the erection of a free hospital in Berkely, Cal.—Work is being pushed rapidly on the four groups of cottages composing the proposed new colony of the Manhattan State Hospital at Central Islip, Long Island, and two of the groups will be ready for occupancy next spring. The other two will be finished in the fall of 1901. All the buildings are so far advanced as to give an idea to the beholder of the immensity of these structures, which, together with the old colony at this place, will make the Central Islip division of the Manhattan State Hospital the largest institution for the insane in the world. The twenty-six buildings in the four groups are each connected one with another by large and roomy inclosed corridors; thus is formed a continuous structure four-fifths of a mile in length, arranged in the arc of a circle.

Dr. Hayden Elected to a Professorship in the Baltimore University School.—Dr. Benjamin S. Hayden has been elected to the chair of materia medica and therapeutics at the Baltimore University School of Medicine. Dr. Hayden is a graduate of the school. He takes the place of Dr. E. Eilau, who recently resigned.

The Death of Sir William Stokes, M. D., F. R. C. S. I., is announced as having taken place at Durban, South Africa, on August 19th. This distinguished Dublin physician was on duty as a consultant with the British forces.

Dr. Kirby Appointed a Member of the Philadelphia Board of Charities and Corrections.—Dr. Ellwood R. Kirby has been appointed by the Mayor of Philadelphia a member of the Board of Charities and Correction. Dr. Kirby graduated from the University of Pennsylvania in 1887, and after three years of study abroad, was in 1892 appointed instructor in clinical surgery in the medical department of the University of Pennsylvania. He has been secretary of the County Medical Society, and is a member of the American Medical Association, of the Pennsylvania State Medical Society, the Pathological Society and the Pædiatric Society of Philadelphia.

Society Meetings for the Coming Week:

MONDAY, *September 3d:* New York Academy of Sciences (Section in Biology); Morrisania Medical Society, New York (private); Brooklyn Anatomical and Surgical Society (private); Corning, N. Y., Academy of Medicine; Utica, N. Y., Medical Library Association; St. Albans, Vt., Medical Association; Providence, R. I., Medical Association; Hartford, Conn., Medical Society; Chicago Medical Society.

TUESDAY, *September 4th:* Buffalo Academy of Medicine (Section in Surgery); Elmira, N. Y., Academy of Medicine; Ogdensburg, N. Y., Medical Association; Syracuse, N. Y., Academy of Medicine; Hudson, N. J., County Medical Society (Jersey City); Androscoggin, Me., County Medical Association (Lewistown); Baltimore Academy of Medicine; Medical Society of the University of Maryland (Baltimore).

WEDNESDAY, *September 5th:* New York Academy of Medicine (Section in Public Health); Medical Microscopical Society of Brooklyn; Medical Society of the County of Richmond, N. Y. (New Brighton); Bridgeport, Conn., Medical Association.

THURSDAY, *September 6th:* New York Academy of Medicine; Brooklyn Surgical Society; Society of Physicians of the Village of Canandaigua, N. Y.; Obstetrical Society of Philadelphia; Medical Society of City Hospital Alumni, St. Louis; Atlanta Society of Medicine.

FRIDAY, *September 7th:* Practitioners' Society of New York (private); Clinical Society of the New York Post-graduate Medical School and Hospital; Baltimore Clinical Society.

SATURDAY, *September 8th:* Manhattan Medical and Surgical Society, New York (private); Miller's River, Mass., Medical Society.

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Births, Marriages, and Deaths.

Born.

GRANER.—In New Orleans, on Friday, August 17th, to Dr. and Mrs. Edwin J. Graner, a daughter.

THEARD.—In New Orleans, on Saturday, August 18th, to Dr. and Mrs. Sidney L. Theard, a daughter.

Married.

BENNETT—RAINNIE.—In Philadelphia, on Thursday, August 23d, Dr. Irvin Edmund Bennett, United States Army, and Miss Lilian Ritchie Rainnie.

CARUTHERS—HEIDINGSFELDER.—In New Orleans, on Friday, July 27th, Dr. J. Allen Caruthers and Miss Lulu Heidingsfelder.

CLAYTON—TROTTER.—At Vancouver Barracks, Washington, on Wednesday, August 1st, Dr. J. Black Clayton, United States Army, and Miss Dutilly Louise Trotter.

DAVIS—SUMNER.—In Pomfret, Connecticut, on Wednesday, August 15th, Mr. Charles Claflin Davis and Miss Margaret B. Sumner, daughter of Dr. Allen M. Sumner, of Boston.

Died.

Boyce.—In Auburn, New York, on Friday, August 17th, Dr. William Boyce, in the seventy-eighth year of his age.

Duperier.—In New Iberia, Louisiana, on Saturday, August 18th, Dr. Frederick Henry Duperier, in the sixty-eighth year of his age.

Griggs.—In West Point, Georgia, on Thursday, August 16th, Dr. A. W. Griggs, in the seventy-third year of his age.

Parsons.—In Louisville, Kentucky, on Saturday, August 18th, Dr. Charles W. Parsons, formerly of the United States Army, in the sixty-ninth year of his age.

Robbins.—In Hingham, Massachusetts, on Wednesday, August 22d, Dr. James H. Robbins, in the sixty-first year of his age.

Waterman.—In Brooklyn, on Monday, August 20th, Dr. William B. Waterman.

Pith of Current Literature.

The Brooklyn Medical Journal, August, 1900.

Legal Restraint in the Treatment of Diseases. By Dr. R. C. F. Combes.—This article deals mainly with that class of patients who suffer from "stimulomania" and proposes to do away with the traditional "ten dollars or ten days" and to substitute a broader interpretation of the insanity law to apply to their case.

Pneumonia. By Dr. J. M. Clayland.—A text-book article of some value as a *résumé* of the present state of our knowledge. Among other things the author says: "Foreign bodies, sputum, or blood, during anæsthesia or coma, may carry the germs into the lungs and set up pneumonia. The sputum of pneumonic patients is virulent and retains its virulence a long time if dried. It should be disposed of with the same care that is given tubercular sputum."

"The crisis is produced by: First—The formation of an antitoxine in the blood, which neutralizes the toxine and for a short period renders the patient immune. Second—After growing in the fibrinous culture medium found in the lung for a number of days and obtaining no serum upon which to grow, the pneumococci lose their virility and the temperature drops. Third—The sodium bicarbonate in the blood at all times is acted upon in the lungs by pneumic acid, setting free carbon dioxide.

"In pneumonia the circulation is impeded, the air vesicles contain no air, pneumic acid does not unite with the soda, but remains in a free state, and after a few days gives the lung an acid reaction, and the pneumococcus lanceolatus will not grow in an acid culture medium. Pus also prevents the growth of the pneumococcus. Pinna injected turpentine into the subcutaneous tissue of rabbits, and the resulting sterile pus injected into rabbits prevented infection when they were inoculated with the pneumococcus lanceolatus."

"The presence of leucocytosis is a favorable sign, and its absence or a lower amount than usual is unfavorable. The presence of the pneumococcus in the blood is a very grave symptom."

Treatment of Pneumonia. By Dr. Herbert F. Williams.—The importance of the element of suggestion is well shown by the following case. The patient, the author says, was seized with pneumonia at a time when the disease seemed unusually fatal. A man of his own age was lying dead from the disease in his house opposite. The patient was of nervous temperament, and of a physique that warranted a sharp expression of the disease. The burden of his mind was that he must not get pneumonia, for he knew it would kill him as it did Mr. So-and-So. Dr. Williams demanded an early consultation and named the man he wanted. The family suggested an old physician in whom they had confidence; so all three met and agreed upon a course to pursue. Matters ran along until the seventh day, at which time the crisis was impending. At this time, too, came all the relatives, some from a distance. The aged father and mother, the knowing brothers and the faithful sisters, all demanded that Dr. Williams should call in the leading consultants of this city and New York; but he had secured the loyal wife in the early days of the disease. He said: "You may have the consultation his relatives want, but in my opinion the time for consultants has passed; no man or men, however able, can do more for him than he is doing for himself. He is conscious, and if he sees such a consultation as is demanded he will conclude that the young man who has been treating him wants to be let down easy; he will say, 'I have got pneumonia and I shall die.' " The wife agreed with Dr. Williams, taking good care to have the sick man guarded from intrusion. Dr. Williams left him at 2 p. m., with a pulse of 150, respirations 60, temperature 105½° F., and said he could not be found for two hours. When he returned he found the crisis had passed. From this on matters ran smoothly for a few days, though the patient was at a loss to explain his prostration and the care and attention he received. Before many days he became dissatisfied and rebellious through ignorance of his true condition, and said he was growing weaker from being confined in bed; he proposed to get up and go out of doors. He was now informed of the nature of his illness, which, up to this time, had been generously withheld. The transformation was complete; confidence, obedience and thankfulness supplanted rebellion. The author continues: "The point which I seek to emphasize by this simple narrative came about in this way: He said to me: 'Do you remember the day I was so sick?' I assured him I did. He said, 'I almost gave up.' Then I asked: 'What if I had called some consultants from New York to see you at that time?' He replied, 'It would have killed me,' and he then repeated almost the identical words that I had used as an argument to assure his wife of the inexpediency of a consultation at that time. He was a type of a man we have all been called to treat, and while we may accept the fact that 'knowledge is golden,' here at least it might have been *fatal* folly to have been wise."

The author speaks highly of the pneumatic cabinet in unresolved pneumonia, and in the tardy absorption of the pleural exudates.

A Form of Serum Treatment of Pneumonia. By Dr. Carl E. Elfstrom.—"Heating a certain quantity of blood, taken from a case of croupous pneumonia, to 60° C. during one or two hours ought to produce an effect similar to that of a filtered culture of micrococci treated in the same manner, provided that the heated blood contains a sufficiency of that material *which in the body becomes, or else assists in the production of, anti-pneumotoxine.*" The author obtained the blood by the application of leeches, diluted it with from three to five parts of normal salt solution, proceeded as above, applied his method to several cases and is sanguine as to its efficacy.

Brief Notes on Pneumonia as Treated by Creosotal. By Dr. Charles F. Stokes.—The author has employed creosotal in seven cases with excellent results. It is used in conjunction with other treatment, such as strychnine, to tone up the heart; nitroglycerin when venous engorgement is present; with a vasodilator when cardiac irregularity is present, etc. Notes of two cases are given.

Scottish Medical and Surgical Journal, July, 1900.

On the Nomenclature of Transverse Presentation and of Version, with Remarks on the Choice of the Leg Seized. By D. Berry Hart, M. D., F. R. S., Ed.—The author considers that the best nomenclature in transverse presentations which divides them into dorso-anterior and dorso-posterio positions, and each of these again into left acromio-iliac and right acromio-iliac, according as the acromion is to the left or right side.

$$\text{Dorso-anterior.}\ \left\{\begin{array}{l}\text{Left acromio-iliac.}\\ \text{Right acromio-iliac.}\end{array}\right.$$

$$\text{Dorso-posterior.}\ \left\{\begin{array}{l}\text{Left acromio-iliac.}\\ \text{Right acromio-iliac.}\end{array}\right.$$

Of the nomenclature of *version* the author says:

"To be exact, we must define the varieties of versions, both as to method and aim; or, as we might put it, the definition term of version requires $\frac{\text{method}}{\text{aim}}$. Put in this way—

$$\text{Cephalic version} = \frac{\text{Bimanual external manipulation}}{\text{Head.}}$$

$$\begin{array}{c}\text{Bipolar version}\\ \text{of Hicks}\end{array} = \frac{\begin{array}{c}\text{One hand external and one}\\ \text{internal, but not deep}\end{array}}{\text{Lower limb.}}$$

$$\begin{array}{c}\text{Combined version of}\\ \text{J. Y. Simpson}\end{array} = \frac{\begin{array}{c}\text{Hand external, and hand}\\ \text{internal and deep}\end{array}}{\text{Lower limb.}}$$

"We must, however, have a more compact terminology, and what I suggest is this. There are three great varieties of version. The first is cephalic version; this is now seldom used in practice, is practically performed by external manipulation, and thus its terminology is seldom needed. We can speak of it, therefore, as cephalic version by combined external manipulation. The old way of performing version was simply to pass the hand into the uterus, seize a foot or both feet, draw down and complete the operation. Sir James Simpson was the first to impress the profession with the importance of also aiding with the external hand. His words are: 'We derive the greatest possible aid from manipulating the uterus and infant with the other hand placed *externally* on the surface of the abdomen.' It seems to me that it would be advantageous to apply the term 'Simpson's combined version' to those cases where the internal hand is passed into the uterine cavity proper to seize a foot, the external hand being also used in the version. This is the method for fixed cases.

"It is to Braxton Hicks, however, that we owe the perfecting of versions so far as the combined internal and external method is concerned. Barnes undoubtedly helped in this evolution by the valuable description he gave of it in his *Obstetric Operations*.

"Hicks's method, where the internal fingers do not pass beyond the presenting part, while the external hand aids the manipulations, usually has the terms Hicks's bipolar version applied to it.

"We have thus three clearly defined varieties of version, as follows:

Combined external—cephalic.
Simpson's combined version—podalic.
Braxton Hicks's bipolar version—podalic.

In the second and third we might for shortness speak of Simpson's podalic and Hicks's podalic. This would practically give method and aim."

For the choice of leg to be seized the author considers Simpson's, Galabin's, and Nagel's views, and comments on the various positions, as before given with regard to the leg seized as follows:

"In the dorso-anterior left acromio-iliac, if the near foot be seized the fœtus will remain dorso-anterior, and the half breech of the limb pulled on rotate through quarter of a circle to the front; there will be thus slight rotation of the trunk and little difficulty with the arms.

"If, however, in this same position one seized the further leg, the position would become dorso-posterior; one would get a long rotation of the breech and risk of disturbance of arms. This long rotation is made up of a first part, where the breech accommodates itself to the transverse of the brim; and a second portion, the ordinary internal rotation.

"What I have just said for the dorso-anterior left acromio-iliac holds for the dorso-anterior right acromio-iliac.

"In the dorso-posterior left acromio-iliac, the further leg when drawn down will convert the primitive position into a dorso-anterior with subsequent short rotation of the breech; while if the nearer foot be taken, we get the primitive position remaining posterior, with consequent long rotation. We may therefore put the rule for seizure of a knee or leg in transverse cases, where one performs what I have termed Simpson's version, as follows: Seize the knee, or leg, which maintains the dorso-anterior position or converts the dorso posterior into a dorso-anterior, *i. e.,* take the further limb for dorso-posterior cases, the nearer for dorso-anterior cases. When, however, in dorso-anterior the breech is in the fundus, traction on the nearer leg may convert it into a dorso-posterior; and when the breech is near the os in dorso-posterior, traction on the farther leg may not alter the posterior position of the back after version, owing again to the want of the necessary obliquity in the pull."

Dr. Hart sums up this controversy by saying that for dorso-posterior cases Simpson's advice is best, while for dorso-anterior ones, Galabin's plan is right. Each of these observers, therefore, stated half the truth.

On the Ætiology of Head Shaking with Nystagmus (Spasmus Nutans) in Infants. By John Thomson, M. D.—The author gives tables of thirty cases of head shaking, and four cases of nystagmus only, and concludes that there are many analogies between chorea minor and head shaking, and says that an interesting view of the causation of the latter may be got by grouping the various ætiological factors as Sir William Gowers does those of chorea.

Chorea, according to Gowers, has three leading factors in its causation. There is, *first,* the age. As Sturges used to insist, chorea is a sort of morbidly exaggerated fidgetiness. Naturally, therefore, it almost always occurs in later childhood—the characteristically fidgety age.

Secondly, there is the neurotic element. Under this heading may be included the facts: (*a*) that chorea mostly occurs in neurotic families; (*b*) that there is often a history of overstrain, mental, emotional, or otherwise; and (*c*) that a shock to the nervous system, such as a fright, is often the obvious determining cause of an attack.

Lastly, in a large proportion of the cases there is "a blood-state allied to, but not identical with, that which causes acute rheumatism."

Now, in spasmus nutans we have a similarly complicated causation. There is, *first,* a special age (from four to twelve months). During this the coordination of the movements of the eyes with those of the head is growing more perfect, but it is still preeminently the age of unsteady eyes and waggling movements of the head.

Secondly, there is the nervous element. Whether it occurs in specially nervous families is uncertain, but it certainly often sets in during the weakness of convalescence, and nearly always during the excitable period of teething. The most probable explanation of the striking association of these cases with insufficient light is, as we have seen, that this gives rise to eye-strain and consequent exhaustion of the cerebral centres. We have also seen that there is sometimes the history of a blow on the head —which means, of course, a fright.

Lastly, the presence of rickets is important as a predisposing cause.

Clinical Note on a Case of Eclampsia at the Sixth Month of Pregnancy, Treated by Saline Infusion and Veratrum Viride. By J. W. Ballantyne, M.D., F. R. C. P., Ed.—The author relates in detail a case of eclampsia in which abortion was induced and remarks upon it in part as follows:

"The case just narrated was a typically severe one of eclampsia gravidarum: there were in all about fifteen convulsions between six in the morning and eight in the evening, and the urine was loaded with albumen and contained also blood and tube casts. The recovery was most encouragingly complete, and taking into account all the circumstances, wonderfully rapid. It has to be noted that the hypodermatic injection of the saline infusion was not the only means of treatment employed; the convulsions were controlled by chloroform, the tincture of veratrum viride was injected up to forty-five minims, rectal injections of bromide and chloral were given, magnesium sulphate was administered by the mouth, and the induction of abortion was carried out. Doubtless all these measures played their part in achieving the satisfactory terminal result; but in attempting to distribute justly the praise, it is important to remember that the cessation of the convulsions and the general improvement in the patient's condition occurred eighteen hours before the birth of the living fœtus. Indeed uterine contractions were few, far between, and ineffective till the morning succeeding the day of the patient's illness. Further, the fœtus was born alive, and therefore it is not permissible to invoke fœtal death as a cause of the cessation of the fits. On the whole I am inclined to give most of the credit of the improvement which took place to the saline infusion and the tincture of veratrum viride; but doubtless the chloral contributed also the result, and possibly the progress of labor, although extremely slow, by emptying the uterus, made the final recovery complete.

"The supervention of eclampsia or of other grave maternal states due to pregnancy before the period of viability of the fœtus is, according to the teaching of the modern French school of obstetricians (Pinard, A., "De l'avortement medicalement provoqué," *Annales de gynécologie,* vol. li., p. 1., January, 1899) the only real indication for the performance of medical, therapeutic, or prophylactic, abortion. Narrowness of the pelvic canals, however great, is not any longer regarded as a sufficient indication for therapeutic fœticide—the induction of premature labor, when the fœtus is of course viable, does not come into this category of cases—for the development of the operations of the Cæsarean section and of symphysiotomy has made it possible to deliver the mother of a living child with a working minimum of danger to herself. Even in the case which has been narrated it will remain in my mind as an unsettled speculation whether the fœticide, for so it turned out to be, was justifiable. Had I desisted from interference after the giving of the saline infusion, might not the pregnancy have gone on till at any rate the fœtus was viable? I am inclined to think not, but I cannot say so with assurance."

A Case of Infantile Scurvy. By George Rose, C. M., M. B.

Notes of Two Abdominal Cases. By William Russell, M. D., F. R. C. P., Ed.

A Glimpse of a Medical Missionary's Experiences among Arab Villagers and Bedouins East of the Jordan. By David Watt Torrance, M. B., of Tiberias.—An interesting descriptive article.

The Use of Hydro-chlorate of Cocaine in Private Surgical Practice. By J. Eustace Webb, M. B., R. N.—The author records his experiences, which have been highly satisfactory, with local anæsthesia in many cases in which general anæsthesia is commonly used.

Philadelphia Medical Journal, August 25, 1900.

Military Surgery. By Dr. W. C. Borden. (*Continued.*)

An Apparatus for Making Roll Cultures. By Dr. George S. F. Nuttall, M. D.

Mütter Lectures of the College of Physicians of Philadelphia. By Dr. John B. Roberts.

The Psychoses of the Menopause. By Dr. John B. Chapin.—It has been observed that many women who have been melancholy, or threatened with insanity at the menopause, have, at the age of puberty, also had serious neurotic or mental symptoms. The author believes that, outside of narrow limitations, there is no sufficient clinical experience to warrant the recognition of a distinct class of insanities as due to a normal ending of an animal function that is universal. It is the duty of the medical adviser to remove those unfounded perturbations that worry and distress so many persons as they approach this period of their lives, and to hesitate about performing those experimental operations which may precipitate it.

A Contribution to the Significance of Koplik's Spots in the Diagnosis of Measles. By Dr. José L. Hirsh.—An eruption limited to the buccal and labial mucous membranes, and characterized by the presence of an irregular red spot with a bluish-white centre, is always present in beginning measles, for from twelve hours to five days before the cutaneous outbreak. The number of the spots bears no relation to the severity of the attack. These spots will be found in no other condition of health or disease.

Two Cases of Trichinosis with Eosinophilia. By Dr. William Watt Kerr.

Physical Diagnosis in Relation to the Stomach and Associated Organs. By Dr. B. C. Loveland.

The Boston Medical and Surgical Journal, August 23, 1900.

Repeated Ectopic Gestation in the Same Patient, with Operation in each Case. By Dr. Malcolm Storer and Dr. M. T. Thurber.—The main feature is that in each case the patient was under the care of the same physician as well as of the same surgeon. The question of whether or not the surgeon's duty in operating upon an extra-uterine pregnancy is to remove the other tube, also, is considered. The authors consider that the history of this case, and of all preceding cases, leads one to believe that the predisposing circumstances which exist in one tube are almost certain to exist in the other also. There have been cases, however (Tait, Kokman, Dührssen), in which a normal pregnancy has intervened between two tubal ones; and some slight encouragement may be given to a young woman who is willing to run the risk of a second extrauterine pregnancy on the chance of giving birth to a living child. When diagnosis has been made before rupture the vaginal route may have its advantages in operating. After rupture, also, it may be preferable, but the operator should have everything ready for a cœliotomy, in case he should find it necessary to abandon the vagina in haste.

The Mortality of Hysterectomy for Fibroids. By Dr. F. H. Davenport.

Hysterectomy for Myoma in America. By Dr. Ernest W. Cushing.

Immediate Repair of Perineal Tears. By Dr. E. S. Boland.—The author believes that it is better always to go prepared for these emergencies. If carefully carried out the immediate operation of suturing ought to give ninety per cent. of successes. Anæsthesia is not a necessity, and, if the operation is promptly done, the tears heal rapidly. The head mirror of the laryngoscope with head band attached will be found of use in illuminating the vaginal part of the tear.

The Medical News, August 25, 1900.

The Construction and Management of Small Cottage Sanitoria for Consumptives. By Dr. Arnold C. Klebs.—Beginning with the assertion that experience has demonstrated the advantage of the systematic sanatorium treatment over the "open treatment" at home or in health resorts, the author reviews the advantages, the chief of which are: The greatest possible amount of fresh, pure, and mostly open, air; wholesome and abundant alimentation; protection from reinfection; cheerful surroundings and energetic guidance in regard to the daily *régime*, adapted to the individual case. In regard to other therapeutic measures, medicinal or otherwise, *"they must take a secondary position in the treatment of pulmonary tuberculosis."* The results attained in localities where such sanatoria are in existence are favorably pointed to by Dr. Klebs, and architectural plans of appropriate designs accompany the paper.

Cooperation of the Public Schools in Teaching "Good Teeth, Good Health." By Richard Grady, M. D., D. D. S.

Tuberculosis and Modern Methods for its Prevention. By Dr. H. H. Vinke.—While there is nothing new or original in this article, the author will be satisfied if its perusal will aid in strengthening the growing conviction that tuberculosis is contagious, and should be treated in a special sanatorium, and that it is our duty as medical advisors to instruct the laity to this effect.

The Abortive Treatment of Acute Mastoiditis. By Dr. James F. McKernon.

Medullary Narcosis during Labor. A Preliminary Report. By Dr. S. Marx.—This article is a timely one on a method of annulling the pains of labor, which is meeting with growing approval as it becomes better known to the general practitioner. The present report is accompanied by illustrative cases, and the results seem to have been more than satisfactory.

Medical Record, August 25, 1900.

Errors Caused by the False Interpretation of the Röntgen Rays, and their Medico-legal Aspects. By Dr. Carl Beck.—Reports of extensive dermatitis and gangrene of the skin are not surprising so long as laymen who understand nothing of the anatomy and physiology of the skin are entrusted with the "manufacture of skiagrams." As in many other matters, the question of "proper dosage" must also be here perfectly understood by the operator. Many errors may also be avoided by recollecting that a skiagraph is only a silhouette and not a photograph, and that to interpret such shadows correctly, a thorough knowledge of the normal anatomical relations of these tissues, especially the bones, that produce such shadows, is required. A skiagraph may show a considerable degree of bony deformity after a fracture, and still the function may hardly be disturbed at all. The importance of making two or more skiagraphs in different positions is insisted upon, and some minor medico-legal aspects of the subject are briefly considered.

The Presence of Virulent Tubercle Bacilli in the Healthy Nasal Cavity of Healthy Persons. By Dr. Noble W. Jones.—This records the results of an interesting series of experiments from which the author concludes that virulent tubercle bacilli are to be found in the nasal cavities of healthy persons in ordinary walks of life, and that they are not to be found so frequently in these persons as in those who have the care of the tuberculous.

Anuria Followed by Retention of Urine in a Case of Hysteria. By Dr. Alfred Gordon.

What are Necessary and Desirable Data upon Health Resorts? By Dr. Edward O. Otis.—Dr. Otis advocates the adoption of the plan suggested by Dr. Phillips, of the United States Weather Bureau, as being simple and plain, and conveying at the same time the main climatic facts of any region.

Tumor Albus. By Dr. Frank E. Peckham.

A Further Report upon the Use of Pure Carbolic Acid in the Treatment of Mastoid Wounds and Chronic Suppuration of the Middle Ear. By Dr. Wendell C. Phillips.

The Journal of the American Medical Association, August 25, 1900.

Parturition as a Factor in Gynæcologic Practice. By Dr. John Milton Duff.—That parturition is the principal factor in producing morbidity which calls for gynæcological interference, is borne out by the statistics of gynæcic practice. Nearly all the morbid conditions following parturition which come to the notice of the gynæcologist are primarily due to sepsis, to lacerations, or to both combined. The idea that a laceration is always significant of a lack of skill on the part of the attendant is a false one, and, even in the practice of the most accomplished obstetricians, at least slight lacerations are the rule rather than the exception.

A rational midwifery, with careful asepsis and proper and timely repair of lacerations, would bring it to pass that salpingitis, ovarian abscess, and endometritis, would be less frequent, and prolapsus uteri, vesicocele, and rectocele, with all their accompanying phenomena, would be comparatively rare.

Anteflexion of the Uterus; its Causes and Treatment. By Dr. Augustus P. Clarke.

A Few Observations on the Efficacy of Protargol in Pyogenic Affections of the Eye. By Dr. F. C. Hotz.—The author says that although protargol is undoubtedly a valuable remedy, the results of its use are largely governed by the strength of the solution and the frequency and mode of application. A twenty-per-cent. solution should be applied during the acute period at least twice in twenty-four hours. If no improvement is noted the strength should be increased. It is essential that the protargol be brought into immediate contact with the affected tissues, for which purpose a cotton swab is useful. It is not necessary to wash the eyes with salt solution or to apply cold compresses after treatment. Neither is it necessary to evert the lids for treatment of the tarsal and retrotarsal conjunctiva.

A Simple Operation for Divergent Strabismus. By L. Webster Fox, A. M., M. D.—This operation the author divides into three parts. (1) Tenotomy of both external recti muscles and stretching of the conjunctiva and Tenon's capsule; (2) the making of an elliptic opening either on one eye or both; (3) the suturing of this opening. Cocaine is the anæsthetic recommended. Details of the operation, which is similar in many respects to those of De Wecker, Knapp, Snellen and Gruening, follow. Its simplicity has much to commend it.

How to Place Lenses before the Eyes so that the Distance of their Respective Anterior Foci Shall be the Same. By Dr. Mark D. Stevenson.

Keratitis Bullosa, with Report of Case. By Dr. Ellet O. Sisson.

Chemical Factors in Interstitial Gingivitis. By Dr. William L. Baum.

The Constitutional Treatment of Interstitial Gingivitis. By J. H. Salisbury, A. M., M. D.

Local Treatment of Interstitial Gingivitis. By Dr. M. H. Flechter.

Cerebral Localization. By Dr. Sydney Kuh.—The author has written an exceedingly interesting and timely article on this subject, which he is pleased to call "a rather hasty and incomplete review of what is known of cerebral localization." He adds a warning, however, to the effect that in attempting to localize a lesion in the brain we should always be prepared for surprises; and refers to a case of his own—one of typical Jacksonian epilepsy occurring on the same side of the body as that in which the disease, an abscess of the cerebellum, was located.

Medicine and Medical Men in the United States. By Dr. A. Jacobi.

Anæsthesia. By Dr. D. H. Galloway.

The Bacillus of Philippine Dysentery.—Extract of a report by Assistant Surgeon R. P. Strong, U. S. Army, and Dr. W. E. Musgrave, First Reserve Hospital, Manila, P. I.

The Lancet, August 18, 1900.

Professional Organizations. By W. G. Dickinson, M. D., M. R. C. S., D. P. H. [Delivered before the Southwest London Medical Society.]

Report on the Physiological and Therapeutic Action of Digitalis and its Active Principles. By Sir T. Lauder Brunton, M. D., F. R. S.—The author states that the discrepancy of opinion in regard to the action of digitalis upon the heart has been due to the fact that its actions upon the heart of a frog and upon that of mammals are not exactly the same. In both, the beats become slower and more powerful, but in the frog the heart stops beating, not from paralysis, but from excessive and permanent contraction in systole. In mammals, the heart stops in diastole. The action of digitalis on the heart of the frog is due chiefly to its action on the cardiac muscles; in mammals it is principally due to stimulation of the inhibitory centre in the medulla oblongata.

In his opinion, digitalis has also a local action upon the muscular walls of the arterioles, causing them to contract, and it likewise stimulates the vaso-motor centre in the medulla oblongata.

The diuresis which digitalis produces, he considers due to increased pressure within the glomeruli of the kidney, which pressure at a certain stage may be so raised that the secretion of urine may be arrested in the same manner as if the renal artery were tied.

Attention is called to the difference in strength and composition of the various preparations of digitalin, *e. g.*, that of Nativelle consists chiefly of digitoxin; that of Homolle and Quevenne of digitalin and of the German of digitalein and digitonin. Nativelle's digitalin in daily doses of from one to two milligrammes slows the pulse, while from three to ten milligrammes of Homolle's are required for this purpose. The German digitalin may be given in doses three times as great as Homolle's or ten times as great as that of Nativelle.

The therapeutic actions of digitalis or of its active principles are, 1. Regulation of the heart's action; 2. Assistance to the failing circulation; 3. Diuretic action. It is recommended, (1) in palpitation and functional irregularity of rhythm without organic disease, unless palpitation is due to reflex irritation from the stomach; (2) where there is incompetency of the nutral valves, due either to damage to the valves themselves or to dilatation of the cardial orifices.

It is harmful, (1) in aortic regurgitation with full compensation; (2) in fatty degeneration with high tension. In the latter case, if employed at all for any reason, the nitrites should be administered simultaneously. Experimentally it has been found that the utility of digitalis is increased by the administration of mercury at the same time.

The Danger to the Community of the Workmen's Compensation Act, 1897. By Albert Benthall, F. R. C. P. Edin., M. R. C. S. Eng.

Measles, German Measles, and the Fourth (sic) Disease. By Robert Craik, M. D.—The writer reports four cases illustrating the difficulty sometimes found in making a diagnosis between measles, German measles, and mild scarlet-fever.

Preliminary Rashes in Measles. By J. H. Thursfield, M. D., M. R. C. P.—The writer reports that on April 8, 1900, a boy eight years of age was admitted to the hospital late at night, with high temperature and a history of several days' illness. The next morning measles was diagnosticated, and he was at once removed, and the ward quarantined. Of the nineteen other patients in the ward nine had never had measles, and of these nine, seven developed the disease between the 14th and 18th day after the first boy was removed. Five of these seven had preliminary rashes appearing from four days to one day before the typical rash of measles, and accompanied by some rise of temperature. In two the rash was a fine papular eruption on the face behind the ears, and on the neck. In one it was a scarlatina form eruption, which was not uniform, but blotchy over the neck and shoulders.

The Hot-air Treatment of Eczematous, Gouty, Rheumatic and other Affections. By David Walsh, M. D.—The writer, from his experience, concludes that the cases most suitable for treatment by superheated air, are (1) painful nervous affections, e. g., sciatica, lumbago, writer's cramp, chorea, etc.; (2) painful and stiffened joints before bony anchylosis has taken place, or the joint becomes disorganized; (3) other diseases, e. g., anæmia, Bright's disease, etc.; (4) eczêmatous skin troubles; (5) arthritic diseases, rheumatism, gout, and their allies.

Cardiac complications have not been found to be a contra-indication to the treatment.

Some Remarks on Cancer of the Breast. By Skene Keith, M. B. C. M., F. R. C. S.—The writer shows how impossible it is to set a true limit to the time when a patient who has been operated on may be said to be cured. He also makes a plea for as thorough and radical an operation as is possible under the conditions present when the operation is performed.

British Medical Journal, August 18, 1900.

Rate-supported Sanatoria for Consumptives. By Nathan Raw, M. D., F. R. S. Edin., D. P. H.—This writer is a strong advocate of the establishment of public sanatoria supported by taxation, in which the poor suffering from consumption may not only receive treatment, but be taught to prevent the spread of infection.

Discussion as to whether Modern Systems of Sewage Treatment can be Depended upon to Remove the Bacillus Typhosus and Allied Organisms.—Opened by A. C. Houston, M. B., C. M. Edin., D. S. C., F. R. S. E.—The speaker stated that the result of a large number of experiments which he had made with filtering plants in actual operation, using for the purpose the Bacillus coli, and the Bacillus Enteritidis Sporogenes, had convinced him that no bacterial process for the treatment of sewage employed at the present time could be relied upon to prevent the passage of the typhoid bacillus.

A Discussion on the Action which can be Taken by Local Authorities for the Prevention of Tuberculous Disease apart from the Control of Milk and Meat Supplies.—Opened by Henry Kenwood, M. B., D. P. H.—The speaker advocated a measure which could be carried out by the authorities: (1) Improved sanitation, including, e. g. (a), the construction of better homes for the poor; (b) prevention of overcrowding; (c) improved general cleaning of the streets, etc. (2) Educational measures to instruct the people in regard to the true nature of the disease, its infections and dangerous character, and the means to be employed to prevent its spread from one person to another. (3) Thorough disinfection or renovation of apartments which had been occupied by consumptives, and the prohibition of the employment of consumptives for cooking or selling food. (4) Providing isolation hospitals and sanatoria. (5) Compulsory notification of all cases of consumption to the medical authorities.

Rural Phthisis and the Insignificance of Case-to-Case Infection. By Sir H. R. Brevor, Bart., M. D., F. R. C. P.—From a study of the death rate from consumption in rural districts covering three decades, and noting its uniformity in the various places of the same section, the writer concludes that infectiousness plays only a small part in the spread of this disease, but that the contributing agencies, such as food, hygienic conditions, etc., are the most important factors.

A Discussion on the Provision of Cottages in Rural Districts and its Bearing on Public Health. Opened by J. S. Tew, M. D., B. S., D. P. H.

Diet in Relation to Cancer. By Josiah Oldfield, M. A., M. R. C. S. [Abstract.]

Cancer Mortality in East Essex. By George M. Scott, M. B., M. D.—The writer first determined that there had been a slight increase in the number of cases of cancer in this region during the last thirty years, comparing the decade 1871-80 with that of 1890-98 (incomplete); but thought this increase was largely due to the better reporting of cases. He set out to prove or disprove the theory of Dr. Havilland that: 1. "In countries having a high mortality from cancer we find that the tributaries of the large rivers rise from soft marshes or other easily disintegrated rocks, and then fall into sheltered valleys through which the main rivers flow."

2. "These rivers invariably flood their adjacent districts during the rainy season, and have generally their waters colored by the suspension of alluvial matter."

3. "The districts characterized by the tertiary and more recent clays and other retentive soils have a very high mortality from cancer."

The conclusions reached were: (1) the disease is less common within the county of Essex, with its clay soil and numerous estuaries, than it is in England as a whole; (2) in those sections of the county which contain an excess of marshy land, the death rate is lower than that of the county as a whole; (3) those parts of these sections which include the greatest extent of muddy foreshore, creek and saltings have a very low mortality; (4) the disease is not especially prevalent in those places which are situated on the banks of fresh-water rivers.

A Discussion on the Question "Should Municipalities Provide Common Lodging Houses and Workmen's Dwellings?" Opened by H. Cooper Pattin, M. A., M. D., D. P. H.

Food Preservatives and Coloring Matters in Food. By Albert S. Grünbaum, M. D., D. P. H.—The speaker stated that the addition of a preservative to food, especially to milk, was to be condemned, as it rendered it much more difficult to digest. He also thought the laws against using preservatives in wine and beer should be more severe and better enforced; also that there should be a law against the addition of any coloring matter to milk, butter, cheese, etc.

The Hygienic Aspect of the Use of Water-gas. By James C. McWalter, D. P. H., L. R. C. P. I. [Abstract.] The dangers of this gas are pointed out.

On the Presence of Members of the Diphtheria Group of Bacilli other than the Klebs-Loeffler Bacillus in Milk. By J. W. H. Eyre, M. D., F. R. S., Edin.—The author refers to his having previously described the isolation of the bacillus diphtheria from a sample of milk and the tests made to prove its identity. He has since found five organisms in milk which resemble morphologically the Klebs-Loeffler bacillus, but none of them is capable of initiating in guinea pigs the lesions produced by the diphtheria bacillus. From these experiments he concludes that it is impossible to diagnose the presence of the true Bacillus diphtheriæ in a sample of milk by microscopical tests alone.

The Supply of Sterilized Humanized Milk for the Use of Infants in St. Helens. By F. Drew Harris, M. B., D. R. H.

The Housing of the Working Classes. By William Berry, F. R. C. S. I., D. P. H.

Gazette hebdomadaire de médecine et de chirurgie, August 5, 1900.—International Congress Number.

Bloodless Reduction of Congenital Dislocation of the Hip.—M. A. Broca and M. A. Monchet reported to the congress sixty-two cases which ranged in age from twenty months to fourteen years. In fifteen cases, in which eight were bilateral, the results were excellent, in twenty-five they were very satisfactory, in seven they were fair, in five no result was achieved and in nine the results were unknown. (Compare *New York Medical Journal*, August 18, 1900, p. 298.)

Treatment of Infected Wounds.—M. Félix Lejars has made an extensive study of infected wounds. Recently infected wounds are best treated by bathing in hot sterilized water or hot physiological saline solution and by the use of sterilized compresses and tampons. By irrigation and cleaning out of the wound, the infecting focus is well cleansed, foreign bodies and the *débris* of tissues removed, and by this purely mechanical, aseptic treatment, good results can be obtained. In gunshot wounds, "the less one does, the better"; an aseptic dressing, aseptic occlusion of the point of entrance, and drainage form the best practical treatment. In the treatment of suppurating wounds, the same rigid precautions must be taken before incision as before operating upon a clean area. The infected area must be thoroughly exposed and good drainage instituted. Sterile water and salt solution and the sterilized compresses must be used in these instances also. The removal of tissue *débris*, purulent foci and necrotic tissue must be complete, while still preserving healthy tissues for the defence of the organism. The dressing must be able to absorb the discharge from the wound and to evaporate freely, so that it shall not become "caked." The wet dressing of sterilized gauze best answers this purpose. For irrigation of deep cavities, peroxide of hydrogen is the best medium. When septicæmia appears, Marmorek's anti-streptococcic serum—when the infection is due to the streptococcus—may be employed, if ordinary surgical means do not avail. Everything must be done to preserve the integrity of the natural defences of the organism, and to second them.

Lyon médical, August 12, 1900.

Muscular Hyperexcitability in Chronic Pleurisy.—M. Péhu points out the hyperexcitability of the scapulotheracic groups of muscles which have undergone atrophy in cases of chronic pleural disease, especially of tuberculous pleurisy. He thinks this phenomenon of real diagnostic value in deciding between pleural and pulmonary lesions in instances in which the auscultatory signs are difficult to interpret.

Pharmaco-dynamics of Salicylate of Methyl and its Sodium Salt. By M. P. Chatin and M. L. Guinard. (*Continued article.*)

Saponification of Amyl-salicylate of Ether by the Liver.—M. M. Chanoz and M. Doyon show by experiment that this salt is decomposed in the body by the saponifying action of the liver.

La Presse médicale, August 9, 1900.

Experimental Researches upon Thyreoid Infections.—M. N. Roger and M. Goriner have succeeded experimentally in producing suppuration of the thyreoid gland in guinea pigs and rabbits by injecting, in some instances, typhoid bacilli, in others staphylococci into the carotid. In some cases, only a parenchymatous inflammation was the result; in others, an interstitial inflammation. A hæmorrhagic thyreoiditis followed the typhoid infection, and sclerosis also was found. The authors say that the same infections occur in man and can be observed in the course of the acute infectious diseases. Sclerosis occurs in chronic diseases, such as tuberculosis, but may develop during an acute disease. Hæmorrhagic thyreoiditis is sometimes seen in variola.

Wiener klinische Rundschau, August 12, 1900.

Therapeutic Value of Lumbar Puncture in Meningitis.—Dr. Maximilian Hirsch reports a case of cerebrospinal meningitis in which the patient recovered after lumbar puncture was practised. No tubercle bacilli were found in the fluid. (Comments are reserved for the succeeding issue.)

Treatment of Skin Diseases by Röntgen Rays.—Dr. Josef Jutassy reports cases of lupus vulgaris, lupus erythematosus, chronic eczema of the hands, of the face and neck, and a vascular nævus hypertrichosis which were completely healed by the use of the Röntgen rays.

"Alsol" as an Antiseptic and Disinfectant.—Dr. J. W. Frieser reports this substance to be satisfactory. In a five-per-cent. solution, it inhibited the growth of gonococci, streptococci and anthrax bacilli. In the treatment of wounds, it was astringent, disinfectant and antiseptic and did not irritate the tissues. In a one-per-cent. solution, it proved useful as a gargle in tonsillitis.

Wiener medizinische Blätter, August 9, 1900.

Specific Energy of Nerve Tissue. By Dr. Hugo Pretori. (*To be continued.*)

Clinical Varieties of Diabetes. By Dr. W. Pavy. (*Continued article.*)

Centralblatt für Gynäkologie, August 11, 1900.

From the International Medical Congress in Paris.—Discussion on puerperal septicæmia. (See *New York Medical Journal*, August 18, 1900, p. 303.)

Quinosal in Midwifery.—Dr. H. Tjaden combats Kirsmann's view that quinosal should be legally sanctioned as a disinfectant for midwives. He believes that thorough scrubbing of the hands should rather be insisted upon, and that training in external examinations is to be perfected. The author doubts if quinosal is a better antiseptic than those which have formerly been proposed for use by midwives.

Centralblatt für Chirurgie, August 11, 1900.

Use of Phlogistics in the Treatment of Wounds.—Dr. G. Meyer, in order to facilitate, as he believes, primary healing, paints the wound lightly with tincture of iodine when the wound is a clean one. When it is infected, he dresses it with acetate of aluminum. In both instances he achieves excellent results, combining these measures with the most rigorous asepsis. By his method he avoids necrosis, but evokes a leucocytosis about the wound.

An Old Case of Resection of the Pylorus.—Dr. L. Rydygier reports the case of a woman whose pylorus he resected nineteen years ago, who is still living in good health. Since the operation, the woman has given birth to five children. The indication for the operation was a gastric ulcer with pyloric stenosis.

Centralblatt für Innere Medicin, August 11, 1900.

Typhoid Empyema; Spontaneous Absorption.—(Review). Dr. D. Gerhardt reports such a case in which the typhoid bacillus was demonstrated in the pleural exudate. The case was remarkable in that the pus was spontaneously absorbed.

Klinisch-therapeutische Wochenschrift, August 5, 1900.

Bed Treatment of Acute Psychoses.—Dr. Clemens Neisser says that the best results are obtained in the acute psychoses by placing the patient in bed. This is equally true of demented persons, epileptics and paralytics, as of the actual psychoses, mania, melancholia and paranoia.

Shall We Treat Fever?—Dr. R. Lépine draws attention to the ancient dogmatic belief in the treatment and combating of fever. The treatment of fever is the reduction of bodily temperature which is frequently an index to the severity of the disease. But the temperature in diseases is not by far the principal factor, and one must treat the fever in different diseases "specifically." In one case antipyretics may be given, in another the best results are achieved by hydrotherapy; the former act specifically in some fevers, while the latter is essential in other conditions for its simultaneous stimulatory effects.

Clinical Significance of the Diazo-reaction.—(*Conclusion.*) Dr. Iszó Hönig says the diazo-reaction appears irregularly in many diseases, but is constant in measles and typhoid fever. Its occasional appearance in tuberculosis is not of lethal prognosis as has been alleged. The quantitative reaction in typhoid fever bears a distinct relation to the severity of the disease and thus has a certain prognostic value. It arises, not from the fever, but from the intestinal processes the results of which are absorbed with the toxines of the disease and become so changed in the blood as to furnish the reaction in the urine. Its disappearance augurs speedy improvement when other signs of this change are wanting. Its subsequent reappearance is a sign of relapse. The pseudoreaction following the ingestion of certain drugs may be distinguished from the genuine reaction by its slightness, and by the absence of the green precipitate. Its appearance in connection with Widal's reaction, is a positive sign of typhoid fever.

St. Petersburger Medicinische Wochenschrift, July 22, 1900.

Asphyxia from Swallowing a Nipple.—Dr. Hermann Lorentz reports the case of an infant which was asphyxiated by inhaling into its larynx a nipple attached to the cork of a beer bottle which had been given it to suck on in the intervals of nursing. The author condemns this practice severely.

Riforma Medica, July 31, 1900.

A Case of Multiple Arrest of Development. By Dr. Vitige Tirelli.—The patient was a young woman aged eighteen years. There was no neuropathic heredity. As a child she seemed to be lacking in intelligence, and was very wilful and disobedient. Menstruation was always irregular. With the advent of puberty her mental deficiency and her irritable, quarrelsome temperament were intensified. When she reached the age of fifteen this irritability disappeared and gave place to listlessness, absentmindedness, and evident decline of the intellect. At this time she was admitted to the asylum, and for several years her state continued unchanged, her life being characterized by long periods of apathy and taciturnity, alternating with accesses of furor. The deterioration of the mind was rapid and progressive, leading to dementia. She became disorderly in her conduct and in her dress, unconscious of her own condition and of her surroundings, mute and without any expression in her features. Her health rapidly declined and she died of marasmus. The writer believes that this was a case of arrested physical as well as mental development. The skeleton was fairly regular; during the last two years of life the face assumed a senile aspect; the skin was dry and atrophic; the adipose tissues almost absent; the body was bent forward, and there was a profound anæmia. In addition, several teeth of the permanent set were absent, and aural and cervical fistulæ were found on both sides. An interesting fact noted by the writer is that in two other members of the patient's family there were the same branchial fistulæ. Arndt and Oliva have suggested that anomalies of physical development, such as branchial fistulæ, in a certain number of cases coexist with deficiency in mental development, and this case is offered as a confirmation of this view.

Primary Echinococcus Cysts of the Lung. By Dr. Cesare Loi.—These cases are liable to be taken for pulmonary tuberculosis, and the present case is reported with a view of illustrating this point. The patient was a woman aged thirty-two years. In November, 1897, she had an attack of influenza which left her with a persistent cough that would not yield to any form of treatment. Several physicians told her that she had pulmonary tuberculosis and prescribed the usual remedies, including creosote. No improvement resulted, and she came to the writer in August, 1898. She was very much emaciated and had an evening temperature of 38.5° C. (102° F.), night sweats, cough and expectoration, etc. The examination of the chest revealed dullness of the left apex, subcrepitant and crepitant râles, and sibilant breathing. The sputum was not examined, as the writer thought the clinical evidences of tuberculosis were very strongly marked. He gave a bad prognosis, and prescribed guaiacol carbonate. Ten days later the patient's condition became worse, there was dyspnœa, cyanosis, and expectoration of large quantities of clear liquid followed by blood and mucus, after which the dyspnœa diminished. Three weeks later, after a severe paroxysm of coughing, she ejected six pieces of echinococcus cyst membrane, whitish in color and varying in size. No tubercle bacilli were found in the sputum, and the left apex now gave a marked metallic resonance on percussion, while the respiratory murmur was scarcely audible. From that time on, there was gradual improvement, and three months later she was examined once more. The respiratory murmur seemed to be absent over the left apex, and the upper part of the left lung was dull on percussion. A characteristic vibratory fremitus was heard over the region of dullness, and auscultation of the voice revealed marked bronchophony. The diagnosis of echinococcus cyst in the left apex of the lung was then made. It is possible that the lung was infected directly through the presence of the ova in the dust of dog's excrement, or the ova may have been swallowed, and penetrating through the wall of the intestine into the circulation, found lodgment in the lung.

August 1, 2, and 3, 1900.

Pelvic Symphysitis. By Dr. Antonino Noto.—Although inflammation of the symphysis pubis is occasionally seen in the puerperium, its occurrence during pregnancy is very rare. Hiller, Monod, Danyaux, and Hayn have reported cases. During pregnancy the affection usually comes on without any apparent cause, but it is preceded by the general relaxation of the joints that characterizes the gravid state. This is a physiological phenomenon, but if exaggerated it may become pathological. In this condition of softening it is easy to understand that the joint of the symphysis may become inflamed. In advanced softening, the cavity of the joint fills with synovial fluid, and the movements of the pelvis and of the lower limbs become painful. When the patient stands erect there is a pain in the symphysis due to the pressure of the uterus upon the affected joint. As a rule this condition occurs only during the second half of pregnancy. Inflammation of the symphysis is extremely rare in the absence of some disproportion between the pelvis and the fœtal head. The writer reports two cases of symphysitis which he had observed, and gives an analysis of all the cases that he has been able to find in literature of the subject from 1778 (thirteen cases, making fifteen recorded instances including his own. He sums up the characteristics of symphysitis as follows: The predisposing causes are (1) traumatism during labor; (2) the softening of the joint during pregnancy. The active cause is the presence of pyogenic germs in the joint. Hence the coexistence of septicæmia, pyæmia, or septicopyæmia with symphysitis. The lesions found in the joint are various degrees of suppuration and destruction of the cartilages, as well as necrosis and caries of the bony parts concerned. The symptoms do not always appear immediately after labor, but sometimes a few days later. The region of the symphysis is painful, especially on pressure upon the posterior aspect of the pubic bone. The anterior vaginal wall is somewhat swollen. The mons veneris may become prominent and painful on pressure. In some cases the first symptoms of the trouble appear several weeks after labor, but the average time for their appearance is one week after parturition. Chills and rise of temperature accompany the development of the inflammation. The swelling usually invades the mons veneris and then the labia majora, especially the left labium; it is diffuse at first and doughy on palpation; later on it becomes more circumscribed and fluctuates. In grave cases the abdominal walls in the hypogastric region become swollen from the infiltration of pus. The pain radiates into the thighs and toward the nates. Extreme flexion of the thighs is impossible, and there is dysuria or incontinence of urine. The best method of diagnosis is vaginal examination. The duration of the trouble varies, the inflammation often lasting several weeks. The patients may die of the concomitant pyæmia, or the abscess may heal under proper treatment, the prognosis being always uncertain, unless prompt surgical intervention is made. Absolute rest must be enjoined at the beginning, together with the ordinary antiphlogistic measures, but the essential feature of the treatment is free evacuation of the pus by a large incision and thorough disinfection of the articular cavity. Drainage with iodoform gauze must be provided, and the joint immobilized by bandaging. Under these measures the cure is usually prompt and satisfactory.

Vratch, July 22, 1900. (August 3, 1900, N. S.)

Concerning Yellow and Yellowish-green Eyeglasses. By Dr. V. N. Dolganoff and Dr. E. Klimovitch.—The writers investigate the composition, physical properties and physiological effects of yellow and yellowish-green glass, and conclude that this form of glass may be employed with advantage in the following circumstances: (a) In all cases in which the eyes must be protected from an excess of violet or ultraviolet rays, as for example, in working under strong electric light—in such cases the preference must be given to yellowish-green glass; (b) whenever the eye lacks the natural protecting elements, *e. g.*, in aphakia, in which, according to Widmark, the absence of the crystalline lens deprives the eye of the protection from an excess of violet rays, especially if the patient, for any reason, is suffering from weak eyesight; (c) an important property of these glasses is to facilitate distant vision, and this has already been recognized by the German military authorities. The eye armed with yellow glasses distinguishes objects at greater distance than the naked eye, a fact which is of great importance in target practice. These yellow eyeglasses may also be employed as protectives against an excess of violet and ultraviolet rays in working with very strong sources of light, *e. g.*, molten metals, etc.

Medical Report of the Municipal Lying-in Institutions of St. Petersburg for the Year 1899. By Mme. E. L. Pouschkina.—The city of St. Petersburg possesses eleven "refuges" for pregnant women, containing eight beds each and established in connection with the police stations. There is also one larger "refuge" of sixteen beds, making a total of 104 such beds throughout the city. These institutions are entirely independent of the large obstetrical hospitals of the city, and are attended by specially appointed municipal obstetricians and midwives. The total number of lying-in women admitted to these beds in 1899 was 8,129. *(To be continued.)*

Concerning the Casuistics of the Eruptions in Relapsing Fever. By Dr. R. A. Louria.—The opinions of medical writers on the subject of the eruptions of relapsing fever are not as unanimous as on that of the exanthems of typhoid and typhus fever. Some writers say that they observed scarcely any or no eruption in relapsing fever, and even regard the absence of roseola as a diagnostic sign of this disease from the typhoid and typhus fevers. Others have observed an eruption in relapsing fever fairly frequently. Thus Jurgensen says that relapsing fever is occasionally accompanied by roseola, petechiæ, pelioma and herpes labialis. The author reports a case of relapsing fever that had been under his observation during the epidemic of 1899-1900 in Kazan. This patient had a minutely papular rash on the abdomen and on the right side of the neck, and a petechial eruption in the bends of the elbows, together with severe jaundice. The papules gradually became hæmorrhagic and the petechiæ gradually coalesced to form ecchymoses. The petechial eruption spread to the chest, the abdomen and the lower extremities. The petechiæ were bluish in color and surrounded by intensely red areas, reminding one of scarlatina. Thirty-six hours after the crisis the papular eruption on the abdomen began to desquamate markedly, and the face became œdematous so that the patient could not open his eyes. This was followed by the appearance of a petechial eruption on the face. The eruption all over the body gradually faded with desquamation, the skin peeling off in large plaques. The patient had two other relapses, and finally was discharged cured.

The Question of Regulation and Abolition of Prostitution at the International Congresses of 1899. By Dr. P. E. Oboznenko.—The author deals with the work of the congresses of London and Brussels in 1899 on the question of the regulation or abolition of prostitution. He discusses at great length the arguments for and against the "licensing of vice" as they were presented at these congresses. Dr. Oboznenko is what he terms a "moderate abolitionist" on this question, and he gives the views of this party in the following summary taken from A. A. Sabouroff: (1) Statistics show that the spread of syphilis has by no means diminished during the existence of police supervision; on the contrary it continues to increase in alarming fashion. (2) The best representatives of modern medicine deny the old-fashioned notion that prostitution is a necessary evil; on the contrary they say that continence is the best foundation for the health of young men. (3) Police supervision is not and cannot be successful because it must necessarily be intrusted to the lowest grades of officials whose moral and mental calibre is not high enough for the requirements of this work. (4) The protection of the houses of ill fame by the government is a disgrace to Christian nations, undermines the conception of the criminality of prostitution among the youth of the country, facilitates the indulgence in vice, and guarantees in a measure the absence of ill consequences of vicious practices, thus serving as a direct temptation and inducement to young men to lead an immoral life. (5) The system of surveillance, with its licensed houses and officially permitted system of pandering, not only does not protect public women from abuses, but even by securing the mistresses of the houses under the wing of police protection, increases the slavery of the prostitute, and by inscribing them into the rolls of public women, cuts off all possibility of their returning to a decent mode of life. (6) The criminal phases of prostitution should be under the jurisdiction of the criminal courts, and not, as at present, subject to the will of the police authorities and the regulations concerning surveillance. Under the present system much that is prohibited by criminal law is permitted by the police code. The writer also gives an outline of the work done in Russia on the question of prevention and punishment of the trade in young women for immoral purposes that is going on in all the countries of Europe and America. An association to aid in this prevention has recently been organized under the presidency of Princess Helene Georgievna of Saxe-Altenburg.

Miscellaneous.

Exploratory Opening of the Spinal Canal and Cranium.—Dr. Miles F. Porter (*Fort Wayne Medical Journal Magazine,* July) formulates his conclusions as follows: 1. Opening of the cranial and spinal cavities and exploration of the brain and cord are operations accompanied by slight risk when properly done. 2. Exploration is absolutely necessary in many cases before a diagnosis can be made. 3. When necessary to decide between delay and exploratory operation we should remember that delay is often more dangerous than operation. Other things being equal the earlier the operation is done the better are the prospects of success. 4. We should do with cranial and spinal injuries and diseases as we do with like conditions in the abdomen, viz.: When in doubt open and examine, with the assurance that the possibilities for good in such a course far outweigh the possibilities for harm.

The Transmission of Tuberculosis by Human Milk.—The *Revista de medecina y chirurgía Prácticas* for July 21st, citing *Progrès médical,* says that Dr. Roger and Dr. Garnier recently reported to the Paris Society of Biology the following facts: They found the bacilli of tuberculosis in the milk of a woman who died from miliary tuberculosis seventeen days after childbirth without the existence of any tuberculous lesions in the mammary glands. This milk was taken with aseptic precautions and inoculated into two small Indian rabbits. The first, which had received subcutaneously four cubic centimetres, succumbed after thirty-three days with generalized typical tuberculous lesions; the second, in which only two cubic centimetres were injected, did not die, and when it was killed, ten months later, only simple non-tuberculous cicatrices were found. The infant died after six months with tubercle in the mesenteric glands, the liver, spleen and kidneys. From these facts it appears that the intestine formed the point of entrance. This case, the authors think, shows that the milk from a tuberculous woman may contain the bacilli of Koch and transmit tuberculosis.

The Diazo-reaction in Tuberculosis.—Hermann Lorentz (*Finska Lakaresallskapets Handlingar,* April, p. 310; *Medical Review,* July) says that this reaction depends upon the fact that if sulphanilic acid be acted upon by nitrous acid, diazo-sulphobenzol is formed, and this forms aniline colors with certain urinary aromatic compounds. An equal quantity of saturated solution of sulphanilic acid in five per cent. hydrochloric acid is added to the urine. A few drops of a one-half per cent. solution of sodium nitrite are then run in, and upon making the solution alkaline a red or port wine color appears.

Statistics of 102 cases confirm the value of this test in the prognosis of phthisis. In seven cases, the reaction was marked and death quickly occurred. In three cases, in which the coloration was only slight, recovery was slow. Of the remaining ninety-two, in which the reaction was not obtainable, eighty-nine improved in general health, and the tuberculous processes were checked. Two cases gave the test at a later stage, and in the remaining one the lesion evidently progressed, but the diazo-reaction could not be obtained. The figures further show that the number of bacilli present in the lungs does not in any way affect the reaction. It is quite independent of their presence.

In connection with the establishment of sanatoria for the open-air treatment of phthisis, it is important that only those likely to be benefited by such a course should be received in these institutions. Hence to confirm the diagnosis of slowly or rapidly extending processes, where the usual signs are not distinctive, this reaction should be more frequently used.

Acute Senile Endometritis.—Dr. L. H. Dunning (*Annals of Gynæcology and Pædiatry,* August) gives the following conclusions based upon two cases reported to the American Medical Association at Atlantic City: 1. The lesion found in both uteri was an acute inflammatory process. It may be properly denominated Acute Senile Endometritis. 2. The characteristic pathological features of the inflammation are (a) a thickened endometrium, the free surface of which is devoid of its epithelial layer; (b) increased vascularity with peculiar arrangement of small blood vessels; (c) small round cell infiltration; (d) diminished glandular elements. While a few glands are to be distinctly seen in many of them, their epithelium is desquamating and their lumen filled with granular *débris.* They may be said to be functionless glands. (e) Degeneration of the coats of the arteries of the muscular layer of the organ. In one specimen this degenerative process is distinctly hyaline. (f) In not one section examined from various parts of the organ could there be found any connective tissue. 3. The mucosa of both the cervix and body are involved in the inflammation, but it is more marked in both cases in the body of the uterus. 4. The small round cell infiltration extends into the upper muscular tissue, though the inflammation is more marked in the mucosa. 5. In both cases one uterine appendage was diseased; in one the ovary was cystic, in the other, one ovary cystic and the Falloppian tube inflamed. In this case there was slight recent peritoneal adhesions. 6. The microscopical appearances in these cases bear but slight resemblance to that found in cases of interstitial endometritis. 7. In one case the acute inflammation seems to have developed without any preceding chronic inflammation. In the other case the acute attack may have been an acute exacerbation of a chronic inflammation. 8. In one case there was a marked retroversion of the uterus, in the other the uterus was in normal position, and in neither case was there marked stenosis of the internal os, yet there was a considerable accumulation of fluid within the uterine cavity. 9. The presence of diseased appendages in both cases, and of pelvic peritonitis (mild) in one, seem to indicate that the inflammation is prone to extend beyond the limits of the uterus, and if such extension is demonstrable by combined examination, an extirpation of the uterus and appendages is indicated.

The Ætiology and Nature of Puerperal Infections.—M. Pestalozza, in a report to the International Medical Congress at Paris on 3847 women confined during the quinquennium 1895-1899, in which period all vaginal disinfection of healthy women in childbirth has been discarded by the service of the obstetrical clinic of Florence, arrives at the following conclusions: 1. The aseptic progress of parturition has been made to depend upon the rigorous use of methods of disinfection of the external genitalia of the patient, and of the hands and instruments of the accoucheur. 2. All disinfection of the vagina of healthy women in childbed is superfluous and dangerous. 3. In case of reasonable doubt of the vaginal asepsis, *i. e.* in women with infectious diseases of the genital apparatus, the best thing to be done is to abstain from touching the vagina during the accouchement. 4. Vulvar disinfection and that of the hands of the accoucheur are adequate to prevent all possibility of infection *during* the accouchement. It remains always an open route to the possibility of a puerperal fever by intoxication (sapræmia). 5. A well conceived antiseptic procedure should also comprehend the necessary precautions to limit the possibility of a putrid puerperal intoxication, that is to say, the prevention of premature rupture of the waters; the union by immediate suture of all vulvar wounds, vaginal or cervical; and especially prudent aid during the period of delivery, but excluding all precocious intervention. This is the best means to avoid the retention of shreds of membrane, placental *débris* and blood clots which afford a very favorable nidus for putrefactive processes. 6. In the after treatment it is necessary to abstain from all vaginal or uterine injections; a good number of cases of infection must be attributed to the imprudent use of such measures. 7. In case of infection it is of the greatest importance to acquire an exact knowledge of the point of entry, that is to say, whether the infection was vulvar, vaginal, cervical, uterine, or a combination of these. The practice of having recourse at once in all cases of infection to uterine injections is highly reprehensible; there is reason to believe that they are often the occasion of an extension of the infection. Especially in cases in which there is fear that antisepsis has been imperfect is it necessary always to ascertain the state of the cervix uteri. All treatment of the infection ought to be preceded by a careful diagnosis of the point of entrance of the infection; this diagnosis, in the present state of our knowledge, has much greater importance from a practical point of view than the diagnosis, always a matter of great difficulty, of the nature of the infecting germs. 8. Bacteriological researches confirm the frequency of streptococcic infection; it is the only agent that the author has been able to demonstrate in the cases of puerperal peritonitis or in metastatic foci; as to staphylococcic infection, he has only been able to find it under the form of multiple abscesses in the uterine parenchyma (a case of criminal abortion). Bacterioscopic examination is not always sufficient, because there are forms of streptococcus of anærobic development which are found often enough in sapræmia, and which have not displayed any pathogenetic power. The Bacterium coli has only been demonstrated by the author in cases of intrapartum fever by decomposition of the amniotic fluid. There are, finally, cases which seem to render credible the possibility of diplococcic infection; but in all probability we are dealing with forms of sapræmia in which the loosening of fragments of decomposed thrombus has prepared the soil for the development of diplococci found upon the wound.

Dermatitis from Self-Intoxication.—In *La Presse Medicale Belge* for the 14th of January, 1900 (*Albany Medical Annals,* August), is reported a case of Dr. Brownrigg's of general, acute eczema in a person twenty-six years old, arising without apparent cause and ascribed by Brownrigg to an intestinal auto-intoxication, for the eczema was accompanied by very fœtid diarrhœal stools. The affection was rapidly ameliorated under the influence of purgatives and the administration of salol. The external treatment was the usual one for eczema. The patient was for a time put on a milk diet, for analysis of the urine showed an active hyperæmia of the kidneys and intense symptoms of intestinal putrefaction.

Proceedings of Societies.

AMERICAN LARYNGOLOGICAL, RHINOLOGICAL, AND OTOLOGICAL SOCIETY.

Sixth Annual Meeting, Held in Philadelphia on May 31 and June 1 and 2, 1900.

The President, Dr. D. BRADEN KYLE, of Philadelphia, in the Chair.

The President's Address.—In his address the president made a plea for more general medicine in specialism, and expressed the opinion that chemical pathology would soon take as important a place in teaching as pathological anatomy and histology. During the past winter he said that he had seen many cases of influenza. He was of the opinion that there were as distinct pathological alterations in this disease as in diphtheria, though they varied greatly with the age and with the individual. He believed that during the inflammatory attack there exuded into the circumvascular tissue a peculiar material not unlike that deposited in amyloid disease. In the majority of cases alteratives gave the best results. There was abundant evidence to show that this disease exhibited a strong predilection for the accessory cavities. Transillumination had proved very valuable in this class of cases, though, owing to individual alterations in the thickness and configuration of the walls of these cavities, it could not be considered a means of making a positive diagnosis. Larngeal tumors had received more consideration in the past year than heretofore, and the method of operating described by Dr. W. W. Keen seemed to him an ideal one. The treatment of diphtheria seemed to have remained about the same by the administration of antitoxine and the local use of Löffler's solution. For operations on adenoids he had found oxygen-chloroform anæsthesia simple and convenient. The oxygen was passed through a wash-bottle containing the chloroform. Turbinectomy, one of the latest fads, was an operation that had been discarded almost as speedily as it had come into prominence.

A Blunt Dissector and Knife for Tonsillar Abscesses, and a Paracentesis Knife.—Dr. NORVAL H. PIERCE, of Chicago, exhibited a blunt dissector for opening circumtonsillar abscesses. The knife was for the initial incision where that seemed necessary, but it was rarely needed. The abscess cavity having been reached, the blades of the dissector were separated, thus favoring the escape of pus.

The other instrument presented was a peculiar bayonet-shaped paracentesis knife with a curved blade having a notch in which the tympanic membrane was caught. With this instrument the membrane could be taken out readily without the use of any other instrument. The curve of the knife and the notch tended to prevent the wounding of the posterior wall of the tympanic cavity.

Fibromyxomata of the Nose.—Dr. M. D. Lederman, of New York, presented a mass of very large fibromyxomata removed from a young girl who had come to him complaining of nasal catarrh. Four of them had been removed at one sitting, and three at another, by using a cold snare. There had been but little bleeding, although the operation had been done before suprarenal extract had come into vogue.

A Plea for an Early Operation in Bilateral Abductor Paralysis.—Dr. N. L. Wilson, of Elizabeth, N. J., read this paper. Its object was to show the seriousness of this class of cases. The first case reported was that of a male syphilitic who had had tracheotomy performed, and who died a few months later from pneumonia. Another case had come under the author's care in July, 1896. The patient was a man, forty-two years of age, having a negative family history. There was an indefinite history of syphilis, and he used alcohol rather immoderately. His voice was a little husky. The urinary examination was negative. The epiglottis and mucous membrane of the larynx were normal. The diagnosis of bilateral abductor paralysis was made, and the man was warned of the necessity of calling for medical aid at once if there was any more trouble in his breathing. At the time he positively declined an operation. The author had been summoned three months later, and found the man dead in his office. Inquiry showed that he had been suddenly seized with an attack of dyspnœa in the street, and had died almost immediately. No autopsy was permitted. Since that time the author had thought that intubation or the removal of a part or the whole of one vocal band might have appealed to this man and have secured his consent. Von Ziemssen had reported six cases, only one of which had improved under electrical treatment. Lennox Browne said that the only case relieved by electrical treatment was the one treated by Von Ziemssen, and, as the patient was lost sight of, the ultimate result was unknown. Cases had been reported by various observers in which death had ensued before the operation could be done. So far as he had been able to ascertain, there had been 118 cases reported. The paper gave a tabulated account of thirty cases. Of the fourteen patients operated upon, ten had recovered, one had died, and three had been lost sight of. Of the remaining thirteen, seven had recovered, three had died, and three had been lost sight of. Four of the seven were neurasthenics, and their cases should not be classed with those of true paralysis of the abductors.

Dr. Otto Joachim, of New Orleans, added another case to those collected. The patient on coming to him had already been tracheotomized, and was wearing an aluminum tube which was almost worn out. The speaker made a laryngeal section and removed both vocal cords. This was done without much difficulty. He kept the man under observation until he was able to breathe for half a day with the tracheotomy tube closed. In that condition he left the hospital and had not been seen since.

Dr. Arthur G. Root, of Albany, N. Y., said that he had recently seen one of these cases. The patient was a man, about thirty years of age, who had had some difficulty with his breathing for the previous two weeks. The man was found to be suffering from intense inspiratory dyspnœa, and examination of the larynx showed bilateral abductor paralysis. Early the next morning the man went to the hospital, was tracheotomized, and was still wearing the tube. The cause of the condition appeared to be enlargement of the mediastinal glands, probably as a result of syphilis. In this connection the speaker wished to say that tracheotomy was not an operation to be approached lightly, as it was sometimes very difficult. In this instance it had been very difficult. The man had been deeply cyanosed for a number of days previously, his neck was thick, and all the tissues bled very freely. After the insertion of the tube the man had a slight convulsion, during which the tube was momentarily dislodged from the trachea. He quite agreed with the author of the paper that tracheotomy was the operation of choice and that it should be done early.

Dr. Thomas H. Halsted, of Syracuse, N. Y., said that during the past year he had seen two of these cases. One was that of a syphilitic man who was taking at the time 500 grains of potassium iodide daily without relief to the dyspnœa, which at times became suffocative. Immediate tracheotomy was advised and agreed to by the patient, but his attending physician so strongly objected that the patient's family had the operation postponed. A few days later the man died suddenly during the night. The other case occurred in a young man without specific history. At the end of two months he recovered under large doses of the iodides and without an operation. In this case the dyspnœa was never urgent except on exertion.

Dr. Robert C. Myles, of New York, said that this subject was of serious importance, and the specialist must have the matter settled in his own mind if he would secure that hearty and immediate cooperation on the part of the general practitioner and his patient which was so necessary to success. As to the choice of operation, it was a question between doing tracheotomy and removing a part of the cords. Personally he would favor the performance of tracheotomy first.

Dr. M. D. Lederman, of New York, referred to a case in which there had been a paralysis of one side of the larynx due to a growth of the thyreoid. A surgeon had tried the injection of iodine into the gland, and that night the patient had had a violent attack of dyspnœa arising from œdema of the larynx. Scarification and the local application of ice had given relief. In another case, occurring in a woman, examination had shown at first nothing but slight redness. A few hours later there was marked œdema, and examination of the urine showed the presence of a considerable quantity of sugar. This patient also recovered without an operation.

Dr. Frederick C. Cobb, of Boston, spoke of a case in which the diagnosis had lain between paresis of the cords and ankylosis of the crico-arytænoid joint. The patient was given potassium iodide and admitted into a hospital. The condition became worse and tracheotomy was done. Every attempt to pass a tube between the cords failed. It was important to give these patients a good breathing aperture, and he would therefore like to know the experience of those present regarding the effect of removing the cords in these cases.

Dr. J. Solis-Cohen, of Philadelphia, was invited to discuss this subject. He said that the subject had been admirably presented, and there could be no doubt that immediate tracheotomy was the best plan. If this was declined, it was an excellent plan to coax the patient to carry with him a tracheotomy tube, for, in case of an emergency the mere showing of the tube to the physician called in hurriedly would be a means of saving life. He had known of two or three such instances. Intubation had the disadvantage of depriving the patient of his voice, and, moreover, there was a chance of the tube being coughed out. He had had no experience with the cutting of the vocal bands, but this operation also deprived the patient of his voice for the most part, and there was danger from cicatricial contraction.

Subglottic Growths.—Dr. Robert C. Myles, of New York, reported cases and showed some new instruments. He said that Mackenzie's original idea had been to push the tube of his forceps down instead of pulling the cutting blades up. It was almost impossible to pull and push at the same time in a spasmodic larynx, and hence the author had had a tube forceps arranged somewhat after the manner of Grant's instrument. The beak could be adjusted in any direction. By pushing with the end of the finger, the cannula was forced down, thus causing the blades of the instrument to close. It cut on one side only. In cases of benign growths it was specially desirable that no injury should be done to the healthy parts. He suggested the use of this instrument in cases of subglottic papilloma in children.

Dr. Wendell C. Phillips, of New York, said he welcomed any instrument which would facilitate the removal of these growths, as no instrument that he had used in the past had seemed to him altogether satisfactory. Up to this time Schroetter's tube forceps had appeared to him the best instrument.

Dr. Price Brown, of Toronto, referred to a case in which he had used the galvanocautery on a subglottic growth. The patient had, in addition, an aneuryism of the aorta. The subglottic growth had produced almost complete stenosis. There was also paralysis of the vocal cord. The growth was large, extended much beyond the centre, was of red color, and had a broad base. He first used cocaine very freely, and then instructed the man to continue breathing so as not to contract the opposite vocal cord. He next passed the galvanic electrode on to the growth, singed it deeply and took out the instruments. This was all that was done at the first sitting. To his surprise this did not produce œdema. At intervals of one, two, or three days, the cauterization was repeated. The man was completely relieved owing to the destruction of this fibroid growth, and had no return of his trouble up to the time of his death, four months later, from the aneurysm. The most important point was to insist upon the patient's breathing constantly, so as not to contract the cord during the operation.

(*To be continued.*)

Letters to the Editor.

THE RECTAL VALVE AND OBSTIPATION.

New York, *July 2, 1900.*

To the Editor of the New York Medical Journal:

Sir: While I was waiting in the reading-room of the Post-graduate Medical School and Hospital the approach of the time of the clinic which I held this afternoon by the courtesy of Dr. Gant, my attention was directed to a controversial article entitled Are There Veritable Valves in the Rectum? by that classical writer, Dr. William Bodenhamer, in the June 30th number of the *New York Medical Journal.*

Dr. Bodenhamer not only denies the existence of the rectal valve, but with an astonishing transcendentalism declares there is "no necessity for such in that organ." I am not sufficiently in the confidence of the administration to assume that I know of the designs of Providence, and content myself, therefore, with the study of His creations as I find them.

Consideration for your space and regard for my readers' patience require that I abandon the idea of answering Dr. Bodenhamer's paper in detail, and proceed at once to show that the rectal valve is an anatomical fact, and a common pathological factor.

Dr. Bodenhamer's erudite paper teems with misquotations and misinferences from my writings; a few of these must be repeated, that they may be corrected, as follows:

"Dr. Martin said that his paper was based upon the assumption that the rectal valve existed, and he showed two specimens to bear out his views, one from a three-months-old child, the other from an embryo in the third month.* The writer will only remark here that it seems strange that an anatomist should select two such intangible examples, as it were, in subjects in which the rectum itself is in a rudimentary or undeveloped state, for the purpose of attempting to demonstrate the existence of perfect valves in an organ itself imperfect. *Why not select specimens for this purpose from fully grown and fully developed adult subjects, which abound?* Dr. Martin's first specimen was taken from a three-months-old child. Now, it is well known that in early infancy, say from birth to twelve or eighteen months, the rectum and colon are not developed beyond the common calibre or diameter of the small intestines. Dr. Martin's second specimen was taken from an embryo in the third month. *Now, it is equally known that the rectum during embryonic life is completely confounded with the bladder, the urinary and the genital canals, commingling with them promiscuously and indistinguishably, and terminating in a common cloaca;* consequently, the question might here with propriety be asked: How and where was this second rectal specimen obtained?" (*New York Medical Journal,* June 30, 1900, p. 1026.)

On page 69 of my monograph on *Obstipation,* Dr. Bodenhamer may find this statement: "The studies of the topography of the human rectum made in this research employed more than fifty autopsies, on subjects of all ages, and physical examinations of many hundred

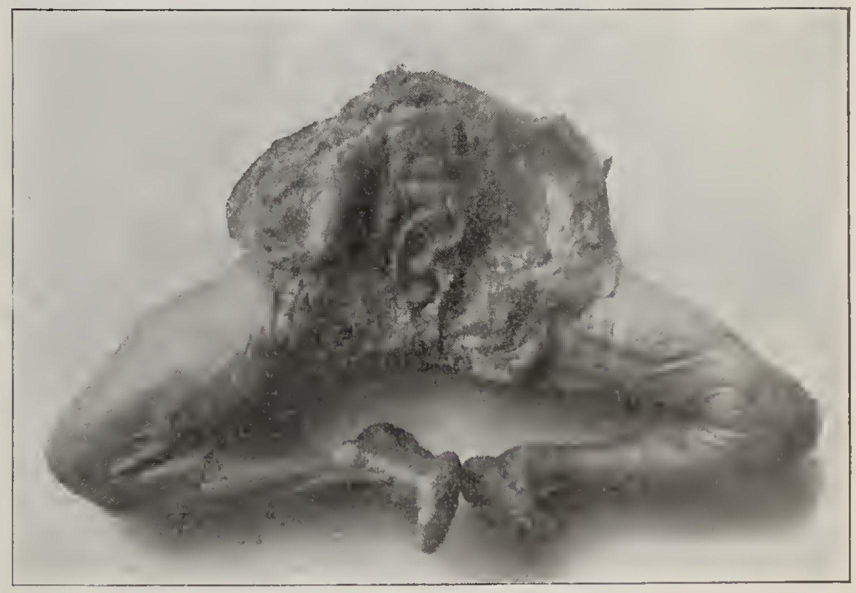

Fig. 1.—A three and a half months' fœtus. A photograph showing the posterior half of the rectum prepared by the paraffin-cast process. The rectal valves are noticeably prominent at this stage of fœtal development.

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*Medical Record, June 17, 1899, p. 885. Dr. Bodenhamer quotes from an abstract which I have never seen.—T. C. M.

living persons." Had my distinguished critic taken the trouble, he would have counted in my illustrations at least sixteen reproductions of photographs of paraffin-cast filled rectums, secured, of course, *post-mortem.* It would have been more consistent with the spirit of science and less Machiavellian to ask *why,* instead of "how and where was this second rectal specimen obtained?" It was obtained in my *practical* researches into the embryology of the human rectum, which were undertaken to discover how early in embryonic development this valve (or plica, or whatever we choose to call this *fact, which I have found in fifty-seven post-mortem subjects,* and several thousand living subjects of various ages), attained its development. The accompanying photographs (Figs. 1 and 2) of specimens prove that the pelvic organs at three and a half months of fœtal development are not so "*confounded*" as my critic is.

I quote from Dr. Bodenhamer again: "In consequence of the great amplitude of the mucous membrane, it is, *when not distended,* disposed into irregular undulating plicæ in the superior part of the rectum, which usually assume a transverse direction. It is sometimes, however, thrown into distinct ridges, which observe a slightly oblique and circular direction."

In the next column he continues: "*The plicæ of the mucous-membrane,* as well as those of the cutis, *may be completely effaced by distention or dilatation;* for instance, the rectum sometimes becomes abnormally distended and enlarged by the accumulation and impaction of fæcal matter, the result of atony; if a specular examination is now made, after the organ is emptied, *it will disclose the fact that all these plicæ of the mucous-membrane have been entirely effaced, and the rectum presents a smooth, unwrinkled mucous surface like a membranous bag. The writer affirms that such cause cannot possibly obliterate veritable valves; hence these plicæ are not valves.*

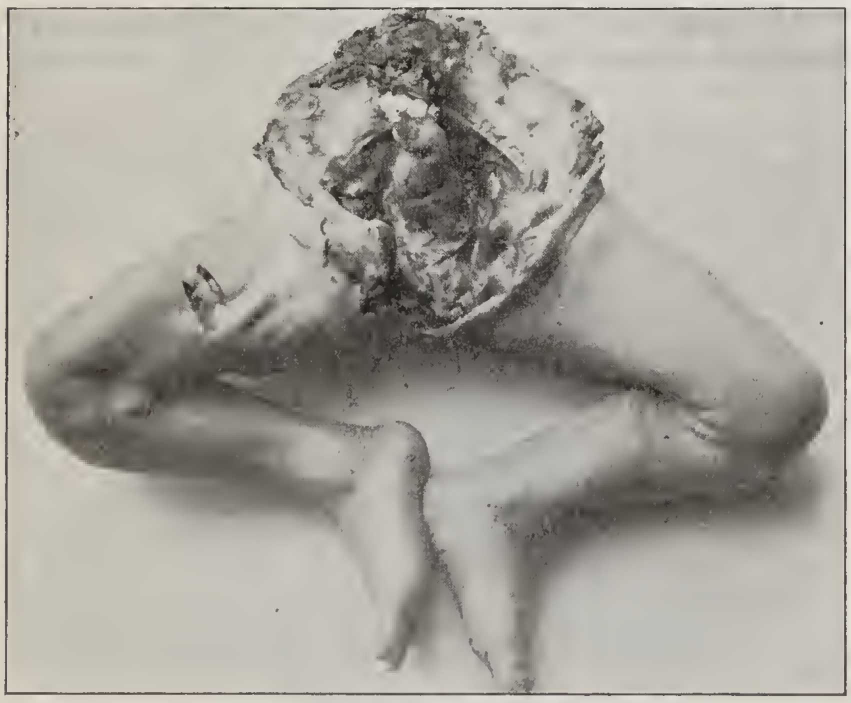

Fig. 2.—A five months' fœtus. A photograph showing a paraffin-cast-filled rectum in situ; the other organs having been dissected away.*

"These plicæ may also be effaced or obliterated by death, because the tonic contraction which caused them depends entirely upon an active principle which ceases with life; hence nothing whatever can be learned concerning them post-mortem; consequently, they cannot be valves, for all valves of the body can most certainly be easily distinguishable in the living body, and in the dead body the removal of the organ ought not to obliterate them, but, on the contrary, they should be capable of being discovered, demonstrated, and verified easily, and at any period previous to decomposition, notwithstanding the assertion of Dr. Martin, who says that 'post-mortem valves cannot be found.'" (*New York Medical Journal,* June 30, 1900, p. 1028.)

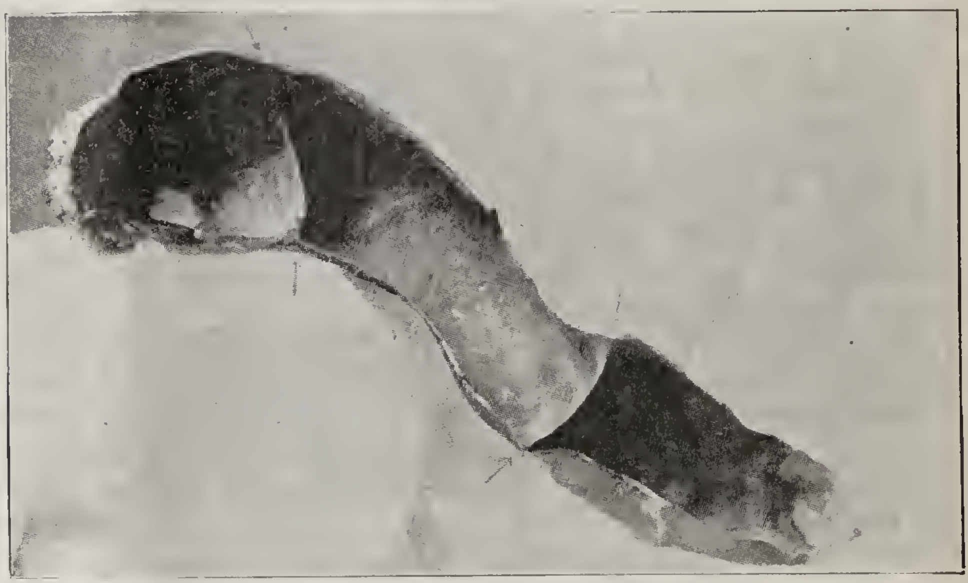

Fig. 3.—Interior view of the left half of the rectum of an adult, filled with melted paraffin, the subject being in the proctocolonoscopic posture. The rectum is distended only to the degree of normal atmospheric inflation. When the wax was hardened the rectum was removed, varnished, dried, and cut open longitudinally. The picture is a reproduction of a photograph of the interior of the left half of the rectum. The anus is at the picture's left. The valves are respectively two and a half and seven inches (6.35 and 17.78 cm.) from the anus.

The foregoing quotations are made for two reasons; first, because they misquote me, which is a fact of minor importance, and, second, because it is not a fact that these structures, which are called valves, are effaced when the rectum is distended. That the rectal valve is most prominent when the rectum is most distended, I demonstrated to the forty physicians in attendance at my clinic at the New York Post-graduate Medical School and Hospital on July 2d. Two of Dr. Gant's patients were shown; on one he exhibited the normal valves, which appeared much as do those in Fig. 3. The other patient presented three valves. On one of these valves, which was hypertrophied and obstructive, I operated on June 28th. This patient's valves had been exhibited to his class previously by Dr. Gant, the diagnosis made, and the operation determined on; through the courtesy of Dr. Gant, I was permitted to perform the operation which removed the obstruction.

Scores of physicians from various parts of the country, who have visited my clinic, have seen the structures under discussion and know that these folds are most prominent when the rectum is most distended. They themselves, subsequently, having employed modern methods of investigation, know that some persons have but two such valves, while others have as many as three, four, or five. I have encountered seven in one patient. These physicians know that when the proctoscope is introduced into the rectum of a patient in the knee-chest posture, the rectum becomes atmospherically inflated, and that its transverse diameter is from 2½ to 3½ or 4 inches. They know, also, that the *normal* valve spans a little more than half the circumference of the rectum, and sometimes projects half across its diameter. These physicians know that when one or more of these valves cannot be readily effaced under the pressure of the proper test, here is the cause of the patient's obstipation—or constipation, if you choose. They know it, for my operation of division of the valves in such cases has relieved the patients.

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* The illustrations are taken from *Obstipation,* by Thomas Charles Martin. The Philadelphia Med. Publishing Co.

The solution of this problem is not to be worked out in the library, but in the consultation room or anatomical laboratory; here in five minutes the properly equipped physician may determine for himself whether there are valves—such valves as I have described—in the rectum.

One must go to the histologist, and not to the mechanical engineer, for the definition of an anatomical valve. Schaeffer and other histologists agree that an anatomical valve is composed of a superficial layer of epithelium, and a subjacent layer of fibrous tissue, and that at the base there are circular muscular fibres. I have had made for me sections of many rectal valves. The most typical partake of the character just mentioned, while many are atypical; some contain fibres from the longitudinal muscular coat; many have a paucity of fibrous tissue; in others, the fibrous element appears to be far removed from the mucous free border of the valves; and in others the circular muscular fibres may be sparse or in abundance.

This rectal fold is found in all rectums, when properly examined *in situ,* and this fold is found also under certain conditions when the rectum is removed from the dead body. That this rectal fold, when hypertrophied and rigid, causes obstipation, is proved by sixty-three patients permanently relieved by section of the valve.

The accompanying photographic reproductions are *documentary* evidence that the rectal valve exists; the paraffin-cast method of distending and fixing the specimens proves, as shown by the photographs, that these folds are not effaced on distention of the rectum, but, on the contrary, are rendered infinitely more prominent than when the rectum is collapsed.

In conclusion I must say, had it been my good fortune to be more perfectly understood by Dr. Bodenhamer, I am convinced that his criticisms would not have been so free, so facetious, or so malicious. My respect for the gentleman who has contributed the most scholarly literature of all ages to proctology and who with unabated vigor approaches his centenary will not permit me to take umbrage at hypercriticisms as unctuous in expression as occasionally they are acrid in quality. That the rectal valve exists, and that it has a definite relation to obstipation, are not matters of theory, but matters of fact—a fact demonstrated also by Dr. A. B. Cooke in a masterly paper in the *Philadelphia Medical Journal,* May 28, 1900. Dr. C. F. Hoover, after investigation, said of the subject, with characteristic brevity, "Seeing is understanding."

Thomas Charles Martin, M. D.,
Cleveland, Ohio.

Book Notices.

A Memoir of Henry Jacob Bigelow, A. M., M. D., LL. D., Member of the Massachusetts Medical Society; Emeritus Professor of Surgery in Harvard University, etc. Boston: Little, Brown, & Co., 1900. Pp. 3 to 297.

Surgical Anæsthesia. Addresses and Other Papers. By Henry Jacob Bigelow, A. M., M. D., LL. D., Emeritus Professor of Surgery in Harvard University, etc. Boston: Little, Brown, & Co., 1900. Pp. viii-3 to 378.

Orthopædic Surgery and Other Medical Papers. By Henry Jacob Bigelow, A. M., M. D., LL. D., Emeritus Professor of Surgery in Harvard University. Boston: Little, Brown, & Co., 1900. Pp. ix-3 to 373.

The Mechanism of Dislocations and Fracture of the Hip. Litholapaxy; or, Rapid Lithotrity with Evacuation. By Henry Jacob Bigelow, A. M., M. D., LL. D., Emeritus Professor of Surgery in Harvard University, etc. Boston: Little, Brown, & Co., 1900. Pp. ix-3 to 356.

It is ten years since, by the death of Henry J. Bigelow, American surgery lost one of its ablest and worthiest representatives, and it is especially fitting that his succinct and careful writings should now be collected and presented to the profession. The main facts of his active and effective life, together with his colleagues' estimate of his work and personality, are interestingly set forth in the memoir.

Dr. Bigelow came of good New England stock; his grandfather, the Rev. Jacob Bigelow, a graduate of Harvard of the class of 1776, served a continuous pastorate of forty years in a country town. His father, Dr. Jacob Bigelow, graduated at Harvard in 1806, rose to eminence in his profession, was a member of several learned societies and for fifty years was professor of materia medica at Harvard.

Henry Jacob Bigelow entered Harvard in 1833 at the age of fifteen, and was more distinguished for his intelligence, activity, and independence than for his scholarship. He also took his M. D. at Harvard, served the Massachusetts General Hospital as interne and spent several years on the continent of Europe in further professional study. On his return to Boston he had an educational equipment rare in those days, the gift of seeing things clearly, the inventive faculty, and exuberant energy. In 1844 he attracted attention by his Roylston prize essay on *Orthopædic Surgery,* a fruit of his European studies, and embodying in a creditable manner the information available at that date, particularly of the French school. He early evinced a predilection for surgery, but devoted much attention to pathology, chemistry, and the use of the microscope.

In 1846 he was appointed visiting surgeon to the Massachusetts General Hospital, at the age of twenty-eight, a post which he honored until his resignation, in 1886, and with which much of his original work is associated. On November 7, 1846, in that hospital, Dr. Hayward amputated the thigh of a young girl who had been made insensible by the inhalation of ether administered by Dr. Morton. Dr. Bigelow was present, and, grasping the enormous significance of the experiment, he made the first public announcement of the discovery of surgical anæsthesia at the Boston Society for Medical Improvement, November 9, 1846, and his paper was published in the *Boston Medical and Surgical Journal* for November 18, 1846. He was the early and earnest champion of the new method and defended Morton's claims to the discovery, showing that the latter first demonstrated that ether, if properly administered, would always produce insensibility to pain, and that with safety.

This was only the first of numerous papers published in this country and in England, which did much to bring about the quick adoption of anæsthesia by the profession.

The value of Dr. Bigelow's work in the mechanics of hip dislocations and in lithotrity at one sitting is too well known to need extended comment. In both investigations many years of painstaking study and experiment preceded the publication of the perfected results. Every detail had been tested, and every appliance reduced to its simplest form. While ingenious and original as a mechanician, Dr. Bigelow had no ambition to turn out instruments tagged with his name, recognizing only the principles involved as really important. Dr. Bigelow's contribution to the understanding and treatment of fractures of the neck of the femur, his discovery of the corpora cavernosa of the turbinates, and his masterly investigation of a medico-legal case, which is said to have led to the abolition of the coroner's office in Massachusetts, are less generally remembered.

Dr. Bigelow was a brilliant and fearless operator, combining dexterity with grace, and yet he warned his students against identifying surgery with the knife, with blood and dashing elegance. His words, "Surgery is not operative surgery; its province is to save, not to destroy," may well be recalled in our day.

While he was amply successful and enjoyed a large clientèle, "any association between medical practice and the art of money-making was repugnant to him, and he was rarely the recipient of large surgical fees," and he consistently opposed the exploitation of hospital affairs with a view to the pecuniary profit of the attending staff.

Though a graceful writer and thorough investigator, Dr. Bigelow was not a great reader or an erudite scholar. He preferred to see with an original eye and to get his facts first-hand from men and Nature. He was an excellent teacher and during his long professorship at Harvard presented his subjects in terse and practical form to a large body of students, whom he profoundly influenced and whose admiration he won. An earnest and able but courteous debater, he never hesitated to champion a cause which he believed to be right, and if he did not always win his cause he never failed to win the respect of his opponents. The unnecessary infliction of pain was specially abhorrent to him, and he was strongly opposed to pointless vivisection.

It is to be hoped that many in our busy profession, as well as out of it, will avail themselves of the opportunity to study the development of this knightly character and his valuable and workmanlike contributions to surgical art in these attractive volumes.

Forty Years in the Medical Profession, 1858-1898. By JOHN JANVIER BLACK, M. D., Member of the College of Physicians of Philadelphia, etc. Philadelphia: J. B. Lippincott Company, 1900. Pp. 7 to 498.

THIS volume is the reminiscence of a long life spent in medical work. It is full of anecdote, observation, and contemplation, and contains many notions and reflections on medicine and medical men which, added to the fluent style, offer interesting and pleasant reading. The changes in medical thought wrought by the past half century are clearly brought to the front and make the volume well worth perusal.

Fractures. By CARL BECK, M. D., Visiting Surgeon to St. Mark's Hospital and to the New York German Poliklinik, etc. With an Appendix on the Practical Use of the Röntgen Rays. With One Hundred and Seventy-eight Illustrations. Philadelphia: W. B. Saunders & Co., 1900. Pp. 5 to 335. [Price, $3.50.]

SINCE the day when the great discovery of Röntgen was first heralded to the world, a vast amount of literature on the phenomena and use of the X-ray has passed through our hands. A work collating the practical benefits to be derived from the skiagram and descriptions of the proper methods of arriving at the best results has long been needed. The author's special interest in this line of work and his vast experience with the rays have enabled him to present to us a book which sets forth all the practical benefits to be derived from their use. While the work is largely a treatise on the use of the X-ray in the diagnosis of fractures, the author has succeeded, in addition, in giving us many useful hints on the proper treatment of those injuries, and the work would be quite well worth our reading for the latter points alone. We find in addition, however, a large number of instructive prints of radiographs of the actual injuries, and, furthermore, the author has added to their interest by refraining from tracing the original blocks, and has simply adhered to an exact reproduction of the photographic prints.

The work concludes with an appendix on the practical use of the Röntgen rays and gives us a most valuable treatise on the art of skiagraphy. Among the various conditions in which the author has found the employment of the X-rays most useful is the distinction of bony from fibrous ankylosis. In the different forms of talipes, in cases of floating bodies in the knee joint, for the study of rhachitic deformities, in obstetrical cases, to determine the osseous changes in acromegaly, in ascertaining the situation of foreign bodies in the skull and eye, in demonstrating the size, shape, and position of the heart, and in aneuryisms and abscesses within the thoracic cavity. The situation of bullets in the thoracic cavity is not easily made out, owing to the movements of the chest wall. An early diagnosis of arteriosclerosis can readily be made with the use of the rays, even if the disease is confined to the deeper vessels. Renal and vesical calculi may be successfully skiagraphed, and recently the author has been able to demonstrate the presence of gall-stones, a feat which has been declared by many authors to be impossible. The writer states that since 1897 he has made nearly 3,000 skiagraphs, without any injury to any of his patients, not even the slightest irritation of the skin in any case in which the rays were used for diagnostic purposes. He overcomes the danger of burning by the use of high vacuum tubes requiring but short exposures. The concluding lines of the appendix call our attention to the possible errors in the interpretation of skiagrams, and numerous incidents and conditions are cited which might lead to an incorrect conclusion.

Atlas and Epitome of Special and Pathologic Histology. By Docent Dr. HERMANN DÜRCK, Assistant in the Pathologic Institute in Munich, etc. Authorized Translation from the German. Edited by LUDVIG HEKTOEN, M. D., Professor of Pathology in the Rush Medical College, Chicago. Circulatory Organs; Respiratory Organs; Gastro-intestinal Tract. With Sixty-two Colored Plates. Philadelphia: W. B. Saunders, 1900. Pp. 7 to 158. [Price, $3.]

THIS is the first volume of a condensed atlas of the pathological histology of the special organs mentioned in the title. Typical morbid changes are shown in the plates and are explained in the accompanying text. As in the other books of the series of atlases of which this is one, the text is to be relied upon as modern and scientific, and the plates are of beautiful workmanship.

Medical and Surgical Nursing. A Treatise on Modern Nursing from the Physician's and Surgeon's Standpoint, for the Guidance of Graduate and Student Nurses, together with Practical Instruction in the Art of Cooking for the Sick. Edited by H. J. O'BRIEN, M. D., Professor of Clinical Surgery, Hamline University, etc. New York and London: G. P. Putnam's Sons, 1900. Pp. ix-287.

A Handbook for Nurses. By J. K. Watson, M. D., Edin., Assistant House Surgeon, Sheffield Royal Infirmary and Sheffield Royal Hospital, etc. American Edition, under the Supervision of A. A. Stevens, A. M., M. D., Professor of Pathology in the Woman's Medical College of Pennsylvania, etc. Philadelphia: W. B. Saunders, 1900. Pp. xii-413. [Price, $1.50.]

Among the numerous text-books designed for the use of nurses, none will be found more valuable and useful than the two before us. Each has its own peculiar plan and scope; the book that Dr. Watson has written is rather a presentation of the field of medicine as it is available for nurses than a text-book upon nursing, while that edited by Dr. O'Brien is somewhat less inclusive and treats more of nursing in itself. Both these books are ably written, and we can safely commend them to the attention of those nurses who are in search of the latest and best information that concerns their craft. As to their arrangement in detail, they do not materially differ from what has become customary in works of their kind.

BOOKS, ETC., RECEIVED.

Public Health Reports issued by the Supervising Surgeon-General of the Marine-Hospital Service, under the National Quarantine Act of April 29, 1878, and the Act granting Additional Quarantine Powers and imposing Additional Duties upon the Marine-Hospital Service, approved February 15, 1893. Volume XIV, Nos. 1 to 52.

Annual Report of the Presbyterian Hospital, Miraj. In Connection with the Western India Missions of the Board of Foreign Missions of the Presbyterian Church in the United States. For the Years 1898 and 1899.

Aortic Regurgitation, with Remarks upon Flint's Murmur and Paroxysmal Sweating. By Alfred Stengel, M. D., of Philadelphia. (Reprinted from the *Pennsylvania Medical Journal.*)

The Immediate and Remote Effects of Athletics upon the Heart and Circulation. By Alfred Stengel, M. D. (Reprinted from the *American Journal of the Medical Sciences.*)

Acute Enlargement of the Thyreoid Gland, with Report of Cases. By Alfred Stengel, M. D. (Reprinted from the *University Medical Magazine.*)

The Diagnosis of Chlorosis and Chloro-anæmia. By Alfred Stengel, M. D. (Reprinted from the *University Medical Magazine.*)

Miscellany.

The Psychology of the Scottish Gael.—Mr. Alexander Macdonald, Assistant Secretary of the Gaelic Society at Inverness, says the *British Medical Journal* for August 11th, has contributed a series of articles to the *Caledonian Medical Journal* for June and July, dealing with various interesting problems on the Ethnological and Mental Characteristics of the Gaelic Highlanders. The psychological characters form an interesting branch of study, and the main facts are very clearly summed up in the analysis given. The Celtic population of the Highlands is divisible into two sections or races, namely, the Ibero-Celtic, a dark-haired race, and the Germano-Celtic, a fair race. To the former would belong the darker-featured individuals, with a preponderance of long heads; to the latter the fairer complexioned with a preponderance of round heads. There is a red-haired variety which it is difficult to include definitely in one class or the other. "Physiologically they fall under the Germano-Celtic classification, though as to several traits in their character, notably passion and emotion, they much resemble the dark." In mental constitution perhaps the most important and serious difference between the dark and the fair persons is the inadaptability, individually, of the former. Though physically wiry and elastic, they are not mentally plastic or adaptable. They are refractory and slow to submit even to things which they cannot control. The dark person—the Ibero-Celt—considers his being more important that even to be the servant of an inexorable fate. What he wishes to do he can do well enough, but what he does not wish to do he cannot mechanically take to. "Work in the sense of a task is not attractive to him, work as a spontaneity he loves. From this arises much of the idealism so characteristic of him. He dreams when he should act. He lives in vision, while he dies in fact." From these traits, again, undoubtedly arose the poetry, the art, the mental influence which the dark Celtic races always possessed and developed; also the comparative lack of dramatic force in all their intellectual creations. They had ideals and aspirations, but lacked action. "The dark-type man we are picturing was not a particular lover of the material world. Give him a simple life outwardly, inwardly his life was one above the clouds in full view of the Elysian fields of his own creation." The dark Celtic man showed intense passion, and under the influence of anger not a little vindictiveness. Success raised him, disappointment lowered his spirits and made him melancholy. He was proud and independent and fond beyond all things of freedom. He learnt instinctively rather than mechanically, he preferred generalization to analysis, and was vague and metaphysical rather than precise and mathematical. "As a commercialist he is not foremost, though fair, and in political organization and nationalization he is deficient. He takes long to mature, but is exceptionally recuperative." The fair Celt was the very antithesis of his dark brother. He was energetic, more active and less dreamy, a materialist and hard matter-of-fact man in philosophy, given to cultivation of the soil and to practical and worldly pursuits, learning not by fits and starts or as the mood seized him, but by steady plodding, a speculator and a commercialist first and a sentimentalist afterward, born to organize, a creator of banks and similar commercial institutions, and interpreting riches as a means to an end rather than a thing to live for. Contact with the Saxon fostered and developed his practical and commercial instincts further, and made him what he is at the present day—practical, pushful and canny.

The American Electro-Therapeutic Association.—The tenth annual meeting will be held in New York on Tuesday, Wednesday, and Thursday, September 25, 26, and 27, 1900, under the presidency of Dr. Walter H. White, of Boston. The programme includes the following titles: Address of Welcome; Response; The President's Address; Induction Coils and Alternators, by Dr. Margaret A. Cleaves; Meters, by Dr. Emil Heuel; Static Machines and Condensers, by Dr. William J. Morton; Constant Current Generators and Controllers, by Dr. William J. Herdman, of Ann Arbor, Mich.; Electrodes, by Dr. Charles R. Dickson, of Toronto, Canada; Electric Light Apparatus for Diagnosis and Therapy and the Röntgen X-ray, by Professor Amos E. Dolbear, of Tufts

College, Massachusetts; Cataphoresis, by Mr. John J. Carty, E. E.; Galvanization, by Professor A. Tripier, of Paris, France; Electro-therapeutic Sins, by Rev. H. Newman Lawrence, of Stapleton, N. Y.; The Ætiology of Tuberculosis; its Course and Termination, by Dr. S. A. Knopf; What are the Present most Successful Methods of Treatment? by Dr. M. J. Brooks, of Stamford, Conn.; Electric Light as a Therapeutic Agent, by Dr. Charles O. Files, of Portland, Me.; Electric Light as a Therapeutic Agent in Diseases of the Throat and Lungs, by Dr. Wolff Freudenthal; Treatment by the Galvanic Battery in Private Practice or in the Sanatorium, by Dr. A. L. Sherman; Cataphoresis: Is it Plausible or Practical, and the Therapeutic Agents Suggested? by Dr. Margaret A. Cleaves, Dr. E. B. Silvers, of Rahway, N. J., and others; Electro-therapeutic Terminology, by Dr. W. J. Herdman, of Ann Arbor, Mich.; The Value of Electricity in Diagnosis and Prognosis, by Dr. William M. Leszinsky; A Plea for the Better Application of Electricity in Diseases, by Dr. J. Griffith Davis; New Advances in Coil Interruptors for X-rays, by Mr. E. W. Caldwell, E. E.; Combined Electrization or Galvano-Faradization, by Dr. A. D. Rockwell; Gleanings in the Fields of Electro-therapeutics, by Dr. Charles O. Files, of Portland, Me.; Electricity as a Remedial Means, by Dr. W. S. Watson, of Fishkill-on-the-Hudson, N. Y.; Electricity in Acute Diseases, by Dr. Laura M. Reville, of Washington; The Treatment of Gonorrhœal Urethritis in the Male by Galvanic Electricity, by Dr. S. W. Smith, of Terre Haute, Ind.; The General Office Work of a Gynæcologist, by Dr. Frederick D. Morse, of Melrose, Mass.; The Treatment of Gynæcological Cases with Static Electricity, by Dr. William J. Morton; Treatment with Faradic and High Tension Currents, by Dr. F. Schavoir, of Stamford, Conn.; The Nervous Diseases Peculiar to Women, by Dr. G. Betton Massey, of Philadelphia; The Use of the Continuous Current and Electrolysis, by Dr. Robert Newman; The Treatment of Uterine Diseases with Electricity, by Dr. F. La Torre, of Rome, Italy; Static Massage in Subacute and Chronic Muscular Rheumatism, by Dr. F. Schavoir, of Stamford, Conn.; Some General Statistics of Stricture of the Urethra Treated by Electrolysis, by Dr. Robert Newman; The Choice of a Coil for Use with Currents of High Amperage, by Dr. R. J. Nunn, of Savannah, Ga.; Spark Gap Currents, viz.: Franklinic Interrupted, Static Induced, and Wave Currents, by Dr. William J. Morton; Illustrations of the Value of the Cataphoric Method in Cancer, by Dr. G. Betton Massey, of Philadelphia; A Universal Electro-therapeutic Switchboard, by Dr. William J. Herdman; The Causes of some Cases of Neurasthenia, and their Treatment by Electricity, by Dr. Francis R. Bishop, of Washington; X-ray Photography, by Dr. E. R. Corson, of Savannah, Ga.; A New Form of Fluid Interruptor for Using Direct Currents, by Dr. Emil Heuel; On Methods of Generating and Transforming Electric Currents for Therapeutical Uses, by Mr. Charles T. Child, E. E.; Electricity in Ocular Practice, by Dr. Maurice F. Pilgrim, of Boston; News from the International Electric Congress in Paris, by Dr. D. Percy Hickling, of Washington; and Electricity in the Treatment of Dilatation of the Stomach, by Dr. John A. Lichty, of Pittsburgh.

Conjunctivitis Spread Through a Public Bath.—The public bath at the foot of Bridge street, Brooklyn, was closed recently by Dr. R. A. Black, assistant sanitary superintendent, in compliance with a suggestion of the physicians of the Brooklyn Eye and Ear Hospital. The condition of the bath was investigated by a medical inspector who reported that the bath itself was in an unexceptionable condition. There were no cases of conjunctivitis found in adults, all the sufferers being young boys. It seemed possible that since the boys all bathed together the disease had been transmitted from one to the other in the bath. On the recommendation of Dr. F. A. Jewett, chief of the Contagious Diseases Bureau, the bath has been reopened.

Bequest for Geneva Hospital.—Under the will of the late Judge Francis O. Mason the Geneva (N. Y.) City Hospital will receive the sum of ten thousand dollars from his estate and upon the death of his two sisters will receive an additional sum of eighty thousand dollars.

Increasing Prevalence of Tuberculosis in Hawaii.—The official health reports for the months of June and July show a marked increase in the death rate. The natives and the Japanese are the greatest sufferers and tuberculosis is the most frequently named cause of death. The increase noted in the number of deaths from tuberculosis is assigned to the influx of patients suffering from that disease who have come to the islands for their health. A slight epidemic of typhoid is reported in one of the districts of Honolulu.

To Enlarge the National Jewish Hospital.—It is proposed to expend thirty thousand dollars in the addition of a new wing to the National Jewish Hospital at Denver, Col. Over ten thousand dollars have already been subscribed and additional subscriptions are being received daily.

Small-pox in Illinois.—A mild form of small-pox is reported at Charleston, Ill., six or eight cases having been reported up to August 11th. A strict quarantine against the infected quarter has been instituted.

Typhoid Fever Near Albany.—Some fifteen or twenty cases of typhoid fever have occurred in and near Menands village, on the road between Albany and Troy. Contaminated well water is assigned as the source of infection.

Health Board Troubles in Texas.—At the recent Democratic State Convention in Texas a resolution was adopted favoring the establishment of a State Board of Health and provision for the collection of the vital statistics of the State. Up to the present time the duties ordinarily assigned to a board of health have been discharged by one individual, the State health officer, and the charge has been made that this official has sometimes acted with unnecessary severity in the matter of quarantines to the great detriment of the commercial interests of the State. The movement in favor of the establishment of a State Board of Health has been actively carried on for some years by Dr. Harrison, of Columbus, and other members of the State Medical Association. The adoption of the resolution by the Democratic convention gives assurance that the matter will be taken up by the next Legislature. There has always been a good deal of conflict of authority in Texas between the local and the State health officials. Quite recently trouble arose over the plague quarantine, while there was an outbreak of small-pox in the State in December, 1898, which apparently through lack of coöperation on the part of the various health authorities has not yet been entirely stamped out.

THE NEW YORK MEDICAL JOURNAL, September 8, 1900.

Original Communications.

A PLEA FOR EARLY NAKED-EYE DIAGNOSIS AND REMOVAL OF THE ENTIRE ORGAN, WITH THE NEIGHBORING AREA OF POSSIBLE LYMPHATIC INFECTION, IN CANCER OF THE LARYNX.*

By JOHN NOLAND MACKENZIE, M. D.,

PROFESSOR OF LARYNGOLOGY AND RHINOLOGY IN THE JOHNS HOPKINS UNIVERSITY MEDICAL SCHOOL, AND LARYNGOLOGIST TO THE JOHNS HOPKINS HOSPITAL.

This is a very important subject, Mr. President, and I hope you will allow it the utmost latitude of discussion. For my own part, I shall be as concise as possible, and shall only call attention to certain phases of the question which, in view of its unsettled state, seem to me to be of most pressing and immediate importance. Leaving out of consideration the probable existence of a cancer bacillus and the possible future detection of the disease through the blood and secretions, there remain, in the present state of our knowledge, three principal methods of diagnosis in laryngeal cancer. These are, in the order of their practical usefulness and importance: 1, the naked-eye method, or diagnosis by direct inspection supplemented by clinical phenomena; 2, thyreotomy; and, finally, 3, the microscope. Of the three methods, the second is often included in, and therefore ancillary to, the first.

It is impossible to exaggerate the importance of naked-eye diagnosis in the detection of laryngeal cancer. Take it all in all, it is by far the most practical of the three methods. Unfortunately, in most quarters it is relegated to subsidiary place. Even the best of laryngeal surgeons lose no time in procuring portions of a suspected growth for microscopic examination before they have gone thoroughly into the history of the case and carefully endeavored to make the diagnosis with the naked eye alone. Every resource and refinement of clinical diagnosis should be resorted to before an appeal to the microscope is made.

As the advanced workers in the field of general surgery have, in the differentiation of tumors, come less and less to seek the counsel of the pathologist, except as a court of the very last resort, so should we teach ourselves to depend more and more upon the naked-eye appearances in the diagnosis of tumors in the windpipe. I wish to insist with emphasis upon the importance of cultivating this, comparatively speaking, neglected method. Detection of the disease by direct ocular inspection seems a simple enough proposition, but how often is the principle involved directly violated by the diagnostician! We need not go beyond the laryngological records of the immediate present for proof or illustration. Search the literature of to-day—alike in text-book and periodical—and see how comparatively little reliance is placed upon clinical signs and symptoms, and how quickly the aid of the microscope is invoked, and often with what disastrous results. The removal of the "piece for microscopic examination" too often means only the beginning of the end.

The trained surgeon of to-day discriminates with marvelous accuracy (with the naked eye) between the different varieties of benign and malignant growths, and we should cultivate and encourage a like amount of skill in the diagnosis of laryngeal tumors. There is, unfortunately, no solitary unequivocal symptom or laryngoscopic sign of cancer. The diagnosis must be made by grouping together, when present, both the local and general phenomena. In a large proportion of cases the existence of the disease at an early stage may be detected in this way, and not until all the subleties of the diagnostic art have been exhausted should we resort to other modes of diagnosis.

But suppose, after weighing carefully all the facts of the case in our possession, a reasonable doubt remains as to the diagnosis, shall the next step be the removal of a portion of the diseased structure for examination? In the face of all authority to the contrary, I say, emphatically, No. Before even considering such a proposition (if it be considered at all), the suspected growth should be examined from every point of view, for in this manner alone can we give the naked-eye method its full measure of usefulness. This is best accomplished by the second method, thyreotomy, or, if necessary, even more extensive external division of the tissues of the neck. Thyreotomy is always justifiable in such cases when laryngoscopic examination either leaves a reasonable doubt as to its true nature, or manifestly fails to define the exact territory occupied by the disease.

Much has been said in recent years about the dangers of thyreotomy, and we are told that we must not operate if the lymphatic glands of the neck are involved. If there is any chance of saving life, I believe a preliminary thyreotomy to be justifiable, even in the presence of external glandular involvement, provided such involvement is not, on its face, too extensive. More than that, if, on thorough exposure of the parts—assuming, of course, that there is no serious contraindication to operation—it is found that the disease can be thoroughly eradicated, even if such eradication should involve deep dissection of the surrounding tissues of the neck, it is far better to give the patient that chance of life than to allow him to drift on to certain and horrible death. As Jacobi said of opening the windpipe in diphtheria, if we saw a man hanging by his neck, we should not hesitate to cut the rope because the individual was in the last stages of tuberculosis or cancer. So in the class of cases we are considering. We have no right not to give our patients every possible chance, even though the statistics of the past may possibly be against us. We want new statistics—statistics based on more accurate cooperative work.

Much can be learned by this method, but it, too, has its limits of usefulness. For, while it alone may establish with certainty the existence of cancer, it often fails to define with absolute accuracy the whole area covered by the morbid process. We can, therefore, never be perfectly sure, especially in cases in which the cancer appears as a diffuse infiltration, that we have the entire disease before our eyes. For, as I have formerly pointed out, as it is often impossible to indicate with exactness the extent of the trouble laryngoscopically, so after division of the larynx, and even after the removal of the latter organ from the body, it is by no means always possible to map out the entire distribution of the affection.

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*An abstract of remarks made in opening the debate on Cancer of the Larynx at the twenty-second annual congress of the American Laryngological Association, May 2, 1900.

But suppose, after division of the larynx, there still remains the faintest trace of uncertainty as to the diagnosis, are we justified, under the circumstances and at this stage, in removing a portion of the growth for examination? Or, to make the question still broader, is partial extirpation of the tumor ever admissible even for the purpose of microscopic diagnosis? Only as a measure of the very last resort.

Before resorting to thyreotomy in general, especially if a portion of the growth is to be removed for examination, it should be clearly understood with the patient that, if the disease should prove to be cancerous, the surgeon shall be at liberty, if in his judgment it seems best, to proceed at once to operation.

The objections which I would urge against removal of tissues for examination (especially when done through the natural passages) are: 1. It subjects the patient at once to the dangers of autoinfection at the point of incision and to metastasis elsewhere. 2. It stimulates the local growth of the cancer. 3. Finally, the method is often inconclusive, misleading, and sometimes practically impossible.

The moment the continuity of the growth is broken, in that very moment is opened the pathway for self-poisoning, and an unfavorable influence is at once excited on the local process. This is the solemn lesson which I have slowly learned from a sad experience in the past.

Cancer is an infectious process. Whether it be due to a bacillus, which is probable, or whether its activity be due to some vital principle inherent in the cancer cell, incision through the cancerous mass opens up at once a broad avenue for autoinoculation.

When I look back through the years in which I have seen cancer of the larynx maltreated and in which I have maltreated it myself, I am simply appalled at the retrospection. And yet, incredible as it may seem from the standpoint of the modern treatment of cancer, the universal sentiment of authority is to-day practically unanimous in advising removal of portions of the suspected neoplasm as an early and routine method of diagnosis!

The latest *ex cathedra* monograph on the subject, fresh from the press, on whose pages the ink is scarcely dry, not only advocates this, but also recommends (at least in the early stages of cancer) the endolaryngeal method, devoting seven pages to its consideration, and only two to the more radical measures!

Early diagnosis and therefore early radical treatment is of prime importance in all diseases, but especially so in cancer of the larynx. Many other affections may be aborted or controlled by comparatively simple agencies. In tuberculosis, for example, we may invoke the powerful aid of climate; in syphilis the unfailing action of certain drugs; in diphtheria the almost magic influence of antitoxine; but in cancer our only appeal is to the knife. Serum therapy will some day play the most conspicuous rôle in the treatment of this disease. For surgical treatment, to be sufficiently radical, involves the sacrifice of so much tissue that the time must surely come when surgery will be supplanted by simpler and more certain means, and with the discovery of the agent of infection will come its antidote. But to-day the knife is our only means of cure. How can we best employ it?

The general principle of treatment in cancer of the larynx is sufficiently simple. It is, or should be, identical with that which governs us in the treatment of cancer elsewhere in the organism. Total extirpation, through liberal portions of healthy tissue, of the growth, together with the neighboring area of possible lymphatic infection, is the cardinal principle of surgery in the treatment of this disease, for by no other method can it be thoroughly eradicated.

The surgical treatment of laryngeal cancer has resulted in failure in the past because the methods employed have not been sufficiently radical. Thyreotomy with curettage or partial removal and partial and complete removal of the larynx have fallen far short of success simply because they have not completely removed the disease. The records of the future will show that the reason so many cases have terminated in failure and death is because the disease has only been partially removed. As long as we have lymphatics to carry infection and glands to become infected, so long will the patient be subjected to ultimate danger. There is only one rational method, in the majority of cases at least, of dealing with cancer of the larynx. Early total extirpation of the entire organ with its tributary lymphatics and glands, *whether the latter are apparently diseased or not*, is the only possible safeguard against local recurrence or metastasis. By no other method can we give the patient a reasonable assurance of a permanent lease on life.

The surgeon who is abreast with the times does not trifle with cancer in other organs. Why should the larynx be made the exception to the rule? I am told that there are some gynæcologists who still curette the uterus for cancer and some surgeons who still remove half the breast in that disease, but, like the Democrats who still vote for Andrew Jackson for president, they are becoming every day more and more hopelessly in the minority. We shall have to learn the same lesson here that we are slowly learning in the case of cancer in other parts of the body. It is the same old fight, and the same old obstacles will have to be overcome.

It is often impossible by inspection, either with the laryngoscope or after preliminary division of the thyreoid, by transmission of light, or by the sense of touch, to limit the extent of the disease before operation. As I have demonstrated, even after the removal of the larynx, the disease may be apparent in one side of the organ and not in the other, and yet the microscope show extensive carcinomatous deposit in the seemingly normal side. Especially is this the case in diffuse infiltration or when the epithelioma originates in the deep-seated tissues and does not approach the surface until a late stage of the disease. The loose tissue beneath the mucous membrane in many places and its wealth in lymphatics often favor from a small focus of infection infiltration of other portions of the larynx, and sometimes with great rapidity. Diffuse infiltration, even though confined to a small area, should always awaken suspicion of the existence of the disease elsewhere in the organ, even though no apparent signs of its presence exist.

It is also possible that in a more or less advanced stage of cancer of the larynx, or even in its early history, we may find young cancer cells in the lymphatics, as Halsted has demonstrated in the case of cancer of the breast.

In the presence, therefore, of the fact that it is often impossible to limit the diseased area by inspection and the sense of touch, and in the light of the revelations of the microscope, it becomes a serious question whether we accomplish any lasting good by any operation short of complete excision of the larynx and the neighboring lymphatics and glands. Certainly, if the disease approaches the middle line, the imperative necessity of complete removal must be apparent to the most timid and doubting operator.

Confronted by this uncertainty, the position of the surgeon is a most responsible one. Operations of this class should only be done by surgeons of acknowledged skill, both in operation and technique, and with a conscientious recognition of the ethical relations of operator and patient. In considering this question, I am profoundly impressed with the solemnity of the issue involved. It is not a theory, but a condition, that confronts us. Beside the question of saving life, all other considerations pale into insignificance. We special workers in the field of laryngology must cast aside our pride and recognize the fact that, while our achievements may be brilliant in the domain of endolaryngeal surgery, when it becomes a question of extirpation of larynx and lymphatics, we must seek the aid and counsel of the general surgeon. We must work together, the one dependent on the other.

It is not so very long ago that excision of the breast was looked upon as a formidable and deadly operation, but this idea has been dispelled by modern surgery, and especially by the brilliant results achieved by Halsted in this special field.

In the hand of a skillful surgeon extirpation of the larynx is not the ghastly operation that we have been taught to regard it in the past, while its dangers are largely, if not wholly, preventable. Excision of the larynx and the removal of the neck lymphatics is one of the simplest and easiest dissections of major surgery, and the chief danger accompanying the former, septic pneumonia, may be perfectly done away with by low tracheotomy and packing between the tube and upper wound. The chief danger is not from the operation, but from recurrence in the neck lymphatics.

While total extirpation of the organ with the neighboring area of possible lymphatic infection should be the general rule of practice, are there exceptional cases in which a less radical method of procedure is justifiable? Early cases, in which the growth is very small (as, for example, the small papillomatous and polypoid growths sometimes found on the cords), distinctly circumscribed, remote from the middle line and not of a specially malignant type, may possibly be removed with safety by extirpation of half the larynx and the lymphatics of the corresponding side. Even here success may be due to the fact that, while the growth may be pathologically malignant, it may yet be clinically benign. For example, on other mucous membranes of the body (lips, mouth, bladder, etc.) and on the skin we find such neoplasms in which the microscope shows an epitheliomatous structure in the main body or superficial portion of the growth, but no malignant changes in base or pedicle. It is quite probable that such a condition exists in the larynx. But even in removal of half the larynx and neck lymphatics we can never be perfectly sure that we have removed the entire disease, while it is open to doubt whether the preservation of function which may be secured thereby is sufficient to warrant the risk. Partial preservation of function should never be attempted in the presence of the slightest danger to life.

Operations for laryngeal cancer through the mouth, done almost universally to-day, it seems to me, should no longer come within the range of serious consideration.

Thyreotomy with curettement or removal of all apparent (visible) disease is not up-to-date surgery, is in direct defiance of the rules that should govern us in the treatment of cancer, and is a reversion to and a resurrection of a method of procedure that was discredited and abandoned over half a century ago.

Whatever operation is done, it should be forever borne in mind that we are dealing with cancer—with an infectious process—that, no matter how minute the original point of infection may be, the area of possible poisoning is practically boundless, and that, if the slightest doubt exists as to the circumscription of the growth or its character, the complete operation should be done. No operation for laryngeal cancer is complete without the removal of the neck lymphatics. It is chiefly because they have not been complete that excision of half the larynx or of the whole organ have so signally failed in the past.

The history of the treatment of laryngeal cancer is the same old wretched story of the treatment of cancer in other organs—the long and melancholy record of dismal failure after failure—the inevitable result of only partially removing the disease. What is the present status of the subject? So far as operative measures are concerned, there seems to be utter paralysis of effort—on every side we are confronted by practical failure. Without stopping to inquire how far apparent success in partial removal of laryngeal cancer may be due to mistakes in diagnosis or to the simple accident of good fortune, it is safe to say that in the present state of our knowledge the outlook is extremely unsatisfactory and sombre. In the presence of the great uncertainty that surrounds operations for partial removal, and in the light of our experience in the modern treatment of cancer in other organs of the body, shall we resort to complete extirpation of the larynx with the neighboring area of possible lymphatic infection, or shall we cling with fatuous persistency to what some one has called, with cruel felicity of expression, the "incomplete operation," under which term must be included all surgical procedures hitherto resorted to in this disease?

The time will surely come, if it has not already come, when the conscientious surgeon will consider that he has fallen far short of his duty to his patient and to himself if he does not, in the treatment of cancer of the larynx, remove not only the entire organ, but also the neighboring lymphatic area. Then, and not until then, shall we have more favorable statistics and prognosis in cancer of the larynx. Then, and not until then, will the medical historian chronicle a real advance in the management of this terrible disorder.

REPORT OF A CASE OF NEPHRECTOMY FOR ASCENDING TUBERCULOSIS, WITH SOME REMARKS ON CYSTOSCOPY AND CATHETERISM OF THE URETERS IN WOMEN.

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(Concluded from page 365.)

I have already spoken of the ability to determine a pyonephrosis by noting the character of the urine as it flows from the ureteral orifice. In one instance, when there was a marked chronic cystitis, it was doubtful from the examination of the urine whether there was any kidney involvement or not. A cystoscopic examination showed, in addition to the cystitis, thick pus coming from the right ureter. An operation disclosed a pyonephrosis due to a large calculus in the pelvis of the kidney. The patient never had had symptoms referable to the kidney, excepting some insignificant backache.

A cystoscopic examination of itself will sometimes enable us to detect tuberculosis of either kidney. When the lips of either ureter is swollen and the orifice is surrounded by an ulceration, the remainder of the vesical mucosa being normal, tuberculosis of the corresponding kidney may be diagnosticated in the presence of pus in the urine. Such an appearance is almost invariably due to a descending tuberculosis. But, as I pointed out on a former occasion,* the change about the ureteral orifice must be marked and be limited to the mucosa immediately surrounding the orifice before such a diagnosis is justified. For, as I stated then, and increased experience has confirmed the observation, patches of redness and even of erosion may be seen about either ureteral orifice and be an indication only of simple localized cystitis. In the case reported in this paper the diagnosis of tuberculosis of the kidney was made from the changes noted in the ureteral orifice. Harry Fenwick, Willy Meyer, Casper, and others have diagnosticated tuberculosis of the kidney from the appearance of the ureteral orifice and surrounding mucosa.

Nowadays, when hysterectomy is so frequently performed, ureteral fistulæ are by no means a rare sequela. Whatever treatment is adopted, it is essential to first ascertain which ureter has been injured. This, from an examination of the fistula, is not always easy and sometimes is impossible. A cystoscopic examination will readily determine this point.

It goes without saying that the cystoscope may be used as an endoscope for the urethra. In every cystoscopic examination the cystoscope should be gradually withdrawn and each portion of the urethral wall as it presents in the lumen of the tube should be carefully inspected. Applications to the urethral canal or the removal of small polypi are easily effected through the tube.

Catheterism of the Ureters.—Like all new procedures, the enthusiasm which it at first evoked was certain to be followed by a reaction which is in danger of going to the opposite extreme.

I have heard a prominent surgeon assert that, rather than catheterize a ureter to determine whether the opposite kidney was healthy in a proposed nephrectomy for unilateral disease, he would cut down upon the supposed healthy kidney and subject it to an exploratory incision.

When we pause to reflect the kind of incision—a splitting of the organ in halves, as is done in a postmortem section—is necessary to ascertain whether the kidney is normal, we must conclude that the opposition to catheterism of the ureters is going to an extreme length.

Accepting the dicta of Israel † and Casper,‡ that the most rigid physical, chemical, and microscopical tests of urine drawn from a kidney do not always constitute a reliable guide as to its function, we may surely assume that it forms a safer guide than a mere visual inspection of the bisected kidney.

Israel could cite only a few instances in which catheterization of the sound kidney had furnished information that proved to be misleading. On the other hand, Casper and Landon * were enabled to cite a large array of cases in which the procedure was of the greatest value to the surgeon.

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* *Loc. cit.* † *Berlinerklinische Wochenschrift*, 1899, p. 31.

‡ *Ibid.*,1899, p. 29.

It is sometimes necessary to catheterize the suspected kidney to determine whether it is the one actually diseased. My own limited experience entirely agrees with the assertion made by Casper that many cases of pyonephrosis give rise to no distinct symptoms. The respective quantity of pus and of albumin, their relation to each other, the reaction of the urine, the form of the epithelia, and the so-called "plugs," do not furnish us with reliable data that pyonephrosis is present. For exactly the same conditions may exist in cystitis. The only thing that affords us certainty is the introduction of the catheter into the ureter and obtaining urine which contains pus cells (Casper). Israel maintains that in pyonephrosis he can always make out by palpation, under narcosis, some enlargement of the affected kidney. This may hold good so far as Israel is concerned, with his enormous experience in renal surgery; but it will not hold good for the majority of surgeons. In one of my cases the extirpated kidney showed no enlargement whatever, and it lay well under the ribs, so that it was impossible even to palpate it.

Now comes the question of the danger of infection from catheterism of the ureters. We will pass over the question so far as it relates to the Nitze method in the male subject; we are interested here only with the Kelly method in women. As already stated in the early part of the paper, by exercising due care the risk of infection may be reduced to almost *nil.*

The procedure should be carried out with the same strict attention to asepsis as would apply to any surgical operation. One should wait until he is certain that he has the ureteral orifice well into view. Then, with a small pledget of cotton soaked in some aseptic solution, the inside of the cystoscope may be mopped clean; with a second pledget, held in suitable forceps, the mouth of the ureter may be cleansed. Then the sterilized catheter held in a sterilized towel is passed directly into the ureteral orifice, without its coming into contact at all with the vesical mucosa.

I have used the ureteral catheter over one hundred times in fully fifty patients, and have never as yet seen any ill results, excepting some pain of variable severity for the twenty-four hours following the event. Thus far I have not met with a single instance in which the patient had any febrile disturbance, so far as I know, consequent upon catheterism of the ureters. I have always carried out the procedure, without an anæsthetic, in the knee-chest posture, and the patients have been able to go home from my office shortly afterward.

Diagnostic Purposes of Catheterism of the Ureters.—
1. To determine in a given case of urinary affection whether the bladder or the kidney is affected.

2. To determine which kidney is the one involved.

3. In a case of pyonephrosis, to ascertain the function of the other kidney by withdrawing the urine directly from it.

4. To determine the presence of a calculus in the ureter or pelvis of the kidney (Howard A. Kelly).*

5. To determine abnormal congenital conditions of the ureter, as a double ureter with an opening into the urethral canal or at the side of its meatus.

6. To determine the presence of ureteritis (Kelly, and case reported by the writer later on).

7. To detect the presence of stricture of the ureter and its location (Kelly and the writer †).

8. To determine the seat of obscure pain in the side (Kelly ‡).

Therapeutical Uses of Catheterism of the Ureters.—
1. To cure certain cases of pyonephrosis by irrigations of the pelvis of the kidney with various medicated solutions (Howard A. Kelly,# L. Casper §).

But, as Israel pointed out in the discussion that followed Casper's paper, the cases of pyonephrosis in which the irrigation treatment could be of any possible benefit are very limited in number. The following conditions are essential to success:

(*a*) The pus collection must be limited to one sac in the pelvis of the kidney; (*b*) the pus must be fluid and non-viscid; (*c*) it must be non-tuberculous; (*d*) it must not be due to the presence of a calculus lodged in the pelvis of the kidney; (*e*) there must not be a non-permeable stricture of the ureter; (*f*) there must not be any perinephritic suppuration.

The absence of any of these features in a given case of pyonephrosis is very rare, as Israel was able to demonstrate by a large collection of specimens.

2. The dilatation and cure of stricture of the ureters when not due to tuberculous ulceration (Kelly).

3. The removal of small calculus lodged in the ureters and obstructing the flow of urine (Kelly,‖ L. Casper ¶).

4. In radical operation for carcinoma uteri, the introduction of catheters into the ureters prior to the operation forms a valuable guide to avoid injuring the ureters.

I will now briefly relate a case in which the mere passage of a catheter into the ureter proved to be of curative effect. The case further forcibly goes to show that a thorough chemical and microscopical examination of the urine in expert hands can not give us reliable information as to whether the seat of trouble is in the bladder or higher up in the urinary passages. It not only failed in that, but the information which it did furnish was misleading.

Mrs. S. was referred to me by her physician on February 26, 1900, on account of rebellious bladder symptoms.

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* *Ibid.*, 1899, p. 35.

* *Operative Gynæcology*, vol. i, p. 449. † *Loc. cit.*

‡ *Transactions of the American Gynæcological Society*, 1899, p. 206.

§ *Berliner klinische Wochenschrift*, 1899, No. 27.

‖ *The Journal of the Medical Association*, March 3, 1900.

¶ *Loc. cit.*

She was twenty-eight years of age and had been married six months.

Two weeks after marriage she began to suffer with painful micturition. The pain at first was slight, but in the course of four weeks grew gradually more severe, so that she consulted her physician for it. He gave her the usual remedies, and as they afforded no relief, he took her to a well-known obstetrician for counsel. This gentleman examined the patient and gave the opinion that the bladder symptoms were due to an anteflexed uterus lying upon the bladder. He advised a dilatation and curettage to straighten out the uterus. This was accordingly done on December 15, 1899. The patient was not in the least benefited thereby. On the contrary, the symptoms grew more severe. She had noticed blood in the urine for the first time about December 1st. The amount kept on increasing, and she frequently noticed that she would pass small clots of blood at the end of the act of micturition. Her physician now tried one remedy after another and frequently irrigated the bladder with various medicated solutions. No improvement whatever was manifest. The symptoms remained about stationary for the six weeks prior to her visit to me. They consisted in severe pain at the end of the act of micturition and of a throbbing sensation in the bladder region, most marked when walking. The act of micturition was not more frequent than normal. This feature of the case puzzled me at the outset.

The urine withdrawn with a catheter was turbid and showed a moderate amount of blood, with a few small clots. The capacity of the bladder was normal. I could inject two hundred and fifty cubic centimetres of boric-acid solution without any discomfort to the patient.

Cystoscopic examination in the knee-chest posture disclosed the whole vesical mucosa in a fairly normal condition, excepting at the trigonum. Here was seen a large red patch covering the whole area, but the redness was most intense about the left ureteral orifice, the lips of which appeared somewhat swollen and of a bluish-red color. The urine was seen coming from it at rather long intervals. The right ureteral orifice appeared normal and emitted jets of urine at normal intervals.

I told her physician that the patient had localized cystitis and that I suspected trouble higher up in the urinary passage on the left side. I made twice weekly direct applications of solutions of nitrate of silver to the affected areas and placed the patient chiefly on a milk diet. While the local condition of the bladder seemed to improve, the symptoms remained exactly as they had been. Thereupon I sent a specimen of the urine, withdrawn by catheter, to Dr. F. E. Sondern for analysis. His report was as follows:

"Reaction acid; amber color; specific gravity, 1.019; moderate sediment; trace of albumin. Examination of sediment obtained by centrifuge at 2,500 revolutions in three minutes. Blood: moderate amount. Pus: moderate amount. Casts: none. Bacteria. Numerous vesical epithelial cells. Crystals and amorphous matter: none. Other structures: none.

"The trace of albumin present being, I believe, accounted for by the pus and blood, and an absence of renal elements microscopically would, I believe, allow the exclusion of a kidney lesion.

"Evidences of a lesion of the renal pelvis could not be made out. The moderate amount of blood, pus, mucus, and vesical epithelial cells, as stated, would, I believe, indicate an acute cystitis. A careful search for a causative factor resulted negatively; there are, however, some pyogenic organisms present."

On the strength of this report strongly excluding any lesion beyond the bladder, I persevered with the topical applications. The local condition remained stationary and the symptoms, if anything, grew worse in spite of the aid from a milk diet and various internal remedies, such as *Zea mays*, urotropine, sandalwood, cubebs, etc. My original surmise now became a conviction, despite the report of the analysis, and I decided therefore to catheterize the left ureter, which I did on March 26th. The urine came rather slowly from the catheter (six cubic centimetres in five minutes), and in drops rather than in jets. It was decidedly turbid. As the urine would flow from the catheter, the patient would say she experienced the same throbbing sensation as she had suffered from.

The following is a report from Dr. F. E Sondern of the urine collected by catheterism of the left ureter:

"Reaction acid; amber color; specific gravity, 1.014; moderate sediment; marked trace of albumin. Urea, 1.5 per cent. Centrifugized sediment. Blood, considerable, forming bulk of deposit; pus, none; mucus, small amount; casts, very few hyaline; bacteria, no pathogenic varieties found; epithelium, numerous round cells, presumably from the ureter; crystals and amorphous deposit; few crystals of uric acid; other structures, none.

"The marked trace of albumin may be due partially or totally to the blood present, and very few hyaline casts would indicate at least a hyperæmia of the kidney, and possibly a more marked lesion.

"The considerable amount of blood may be due to the manipulation or to some lesion of which the specimen shows no corroborative evidences.

"A careful search for pathogenic organisms, elements of pseudoplasm, or evidences of stone resulted negatively."

I was enabled to pass the catheter (a woven silk one) with ease, and I know it could not have produced any marked traumatism.

The afternoon following the catheterism the patient suffered from very severe pain in the left groin, necessitating a hypodermic of morphine before relief was obtained, but on the next day all bladder symptoms had vanished. On March 29th the menses set in and she had a slight relapse of the bladder symptoms for a day or two.

April 4th.—Has had no bladder symptoms since the day following the onset of the menses. She has noticed that the urine has been clear and that she has not passed any blood.

Urine withdrawn with catheter is perfectly clear and showed no sediment on standing.

On cystoscopic examination the trigonal area is almost normal in appearance. The hyperæmia seems a little more marked than normal about the left ureteral orifice. The lips of the orifice are less swollen and the urine is seen to be emitted freely in jets.*

What is the explanation of the sudden and marked relief following the introducton of the catheter into the left ureter? The one, as the French say, that "jumps to the eyes" is that a small calculus was impacted in the pelvic part of the ureter, and this was dislodged by the catheter, and afterward discharged into the bladder, from whence it was expelled in the act of urination.

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* May 15. The patient has remained free from any urinary symptoms.

Plausible as this may seem, it lacks many important features for confirmation: First, the patient never had had an attack of renal colic; secondly, the introduction of the ureteral catheter did not meet with any obstruction; thirdly, the patient was not conscious of having afterward passed a calculus *per urethram*.

What else could it have been? It is more than probable that the localized cystitis was of a gonorrhœal nature and that the infection extended up along the left ureter. On the other hand, it is difficult to comprehend how the mere passage of a catheter once would give permanent relief had the condition been one of gonorrhœal ureteritis.

The case emphasizes another point: the fallacy of attributing bladder disturbances to a supposed or real anteversion of the uterus. I say "supposed," for in my opinion the position of the uterus in the foregoing case was that of normal anteversion. There is no excuse for such an error at the present day with an expeditious method of direct inspection of the bladder.

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THE FIRST-AID PACKET IN CIVIL PRACTICE, AND THE ORGANIZATION OF FIRST-AID SOCIETIES.

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My object in writing this article is to call the attention of the profession, especially those physicians residing in mining regions and those who practise in manufacturing and railroad centres, to the value of the first-aid packet and also to the good that can be accomplished by the organization of first-aid societies in districts where their clientèle are engaged in such hazardous occupations as mining, railroading, and iron working.

The idea is not original with me, for such societies have existed in England for a number of years under the name of the St. John Ambulance Association, which has for its president no less a personage than His Royal Highness the Prince of Wales, and among its other officers eminent men in all walks of life.

I have practised during the whole of my professional career in the coal-mining regions of northeastern Pennsylvania, where we have a great many men who come from the mining districts of Great Britain, and in conversations with them the subject was first brought to my attention. We all know what serious results oftentimes follow mining accidents in the form of sepsis, loss of blood, tardy recovery, and sometimes permanent disability, all resulting from the filthy condition in which the surgeon finds the wounds and injuries and the time that elapses from the occurrence of the accident until the doctor gets to his patient. For these accidents (in mining) occur sometimes a great distance underground and sometimes several miles from the sufferer's home or the district hospital.

Then, also, the poor sufferer fares quite badly in the hands of his fellow-workmen, who all get excited in trying to aid and oftentimes do the injured man more harm than good. Several instances have come to my knowledge in which miners who were trying to extricate an injured man from under a fall of coal have lost their heads and either walked or stood on top of the pile of coal that was pinning the poor fellow down, thereby adding several hundred pounds to the weight that was on top of him, and when he was finally got out he was handled sometimes roughly, owing to the excitement or lack of training of his brother-workmen. So, knowing all these things and believing that if an organization on the same plan as that of the St. John Ambulance Association could be started, I was sure it would be the means of doing much good to suffering humanity and would be of great benefit to the surgeon who attended these cases by securing cleanliness of the wounds, less shock from loss of blood, etc.

Accordingly, about February 1, 1900, I organized a society consisting of twenty-five men, all working in one colliery. This colliery employs about 400 men and has five headings, or main gangways. These twenty-five men are divided into squads of five, and one squad is distributed along each gangway of the mine. One of the five is chief of the squad and is selected after passing an examination on the topics pertaining to the first aid to the injured. In his keeping is a small box containing cotton, a rubber tourniquet, flexible splints, a bottle of olive oil and lime water, a bottle of aromatic spirit of ammonia, a small glass, and a spoon. There is also a folding stretcher kept in each gangway, and each member of the squad is provided with a first-aid packet, which he carries with him.

The society meets twice a month, and at each meeting some other physician or myself gives short talks on the subject of first aid. Each member has a little book called *First Aid to the Injured,* written by the late Dr. Peter Shepard, surgeon-major, British Army, which is published in London by the St. John Ambulance Association and contains in its hundred pages about all that is needed for the average working man. I have them study this book, which contains some anatomy, a little physiology, some information about bandaging, and instructions as to how to care for injured persons till medical aid arrives. It also contains rules for resuscitating persons whose breathing has become feeble or ceased, in cases of hanging, drowning, poisoning from opium or gas, and electric shock. The book also gives a stretcher drill and full directions as to lifting and carrying an injured person.

I could not find anything published in this country that suited my purpose, in point of brevity and cheapness, as this work does, which costs only thirty cents delivered in the United States. Of course, there are several excellent works written and published in this country; the one by Dr. Doty is an excellent one, but it is too extensive and the cost too much ($1.50) for the average miner.

As regards the financial affairs of this society and the means of raising money for the purchase of material, first aid-packets, etc., in every mining and manufacturing district, as is well known, there are a number of accident and benefit societies which pay their members so much a week in case of accident, and they can be made to understand that such an organization is the means of getting its members who are injured back at work sooner than would otherwise be the case, which means a saving of money to the benevolent society or lodge.

Now, in my town we have a number of such organizations, and they have all contributed to the first aid in both men and money, and the miners have as individuals contributed a small sum, I think ten cents each. As we are equipped now with forty-eight first-aid packets, tourniquets, splints, stretchers, and books, the total cost of which has only been $50.00, we have not yet asked the mining companies for any financial assistance, but I have no doubt that if we needed it and the matter was put before them they would willingly contribute to such a cause.

As I stated in the beginning, my sole purpose in writing this article is to bring this matter before the physicians who are living in districts where men, from their occupation, are unusually liable to accidents; and, as we are or should be in this progressive age interested in preventive medicine and surgery, I think this matter is worthy of much consideration and I have not the least doubt that whoever once takes the initiative will have the zealous and hearty cooperation of his patrons and the public. In my case the men whom I have organized have entered the work with zeal and are faithful in trying to learn how to aid their fellow-workers, giving their time and money to aid their unfortunate colaborers.

In closing, I should like to state that the physician who organizes a first-aid society should carefully select his men; they should be of temperate habits, men who are intelligent and conscientious, men who will be faithful and punctual in attending the meetings of the society, and men who understand that they are doing this for sweet charity's sake, that do not get disconcerted easily, and have no aversion to the sight of blood. In our organization I had to weed out several who could not stand the sight of blood or of an injured person.

Physicians who have practised any length of time in a community soon get to know who is capable of helping in accidents, and these are the men to be selected. Then, again, there is no need to provide every man who works in the rolling mill, factory, or mine with a first-aid packet, because the men usually work together and some one who belongs to the society is almost always present or not far away and can be almost instantly in attendance.

These classes or societies can follow a prescribed course for a year or so, and then a certain number of the most proficient should pass an examination and be given a certificate. Then new members could be brought in, and if there were several societies in the vicinity interest should be kept up by competitive stretcher drills, trials of skill in bandaging, etc. I should also recommend that the members of such societies wear a badge or boutonnière of some suitable design, so that they could be easily found in case of accident. If physicians would give this matter serious consideration they would do a grand and humane work in the communities in which they reside, and this work once fairly started will continue to grow and the organization will become as general as it is in Great Britain.

FEEDING THE INFANTS OF THE POOR WITH UNSTERILIZED COW'S MILK.

By GEORGE THOMAS PALMER, M. D.,

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THE opinion of Dr. L. Emmett Holt, that all cow's milk which is to be used in infant feeding should be pasteurized, and all that is to be used for the infants of the poor should be sterilized, while largely held by the medical profession, is not an idea with which I should wish to concur. Convinced that a sterilized milk is greatly inferior to raw milk, from a dietetic standpoint, I cannot see the reason for advising its use among the poor. So long as fresh air and hygienic environment for the poverty-stricken are merely dreams of an ideal future, we should at least procure for them the best possible food.

The condemnation by a large number of physicians directed at sterilized milk would seem to put it in disfavor, and the fact that many of its advocates regard it as a "necessary evil" places it still further in disrepute. Personally, I have grown to regard it as unquestionably an evil, and I am unable to see that it is absolutely necessary.

The objections to sterilization have been so frequently and ably discussed in medical literature that it is necessary only to mention them. C. Fraenkel accuses the method of (1) coagulation of the albumin and consequent difficulty of digestion; (2) loss of the emulsion of the fats; (3) change of the sugars to caramel; (4) splitting up of the lecithin and nuclein; (5) change in the soluble salts; and adds that rickets, scurvy, Barlow's disease, constipation, and all manner of malnutrition and digestive disorder arise from its use. V. C. Vaughan insists that neither sterilization nor pasteurization is desirable, and that there is no doubt as to the detrimental change in the nucleo-albumin (the chief proteid) by the heat. He further urges that even the temperature of 356° F. will not destroy the toxines or bacterial products in the milk, though such a degree of heat would materially affect the food value. Cotton remarks that, if the milk is secured under proper hygienic conditions, sterilization or pasteurization is worse than useless, as they lessen the food value. H. D. Chapin, while reiterating these objections to sterilization, reminds us that an alkaline decomposition, the nature of which we do not fully understand, may occur in sterilized milk and be productive of an alkaloid deleterious to the child. J. P. C. Griffith admits that sterilized milk may produce scurvy, and advocates sterilization only as a lesser of two evils. J. F. Bell says that either sterilization or pasteurization is at best a necessary evil. Brush says that when milk is boiled it is killed. Winter reports two cases of scurvy produced by sterilized milk and further denies the possibility of absolute or permanent sterilization. And so they continue, page after page, condemning the process entirely or admitting it only as "a necessary evil."

Certain it is that sterilization has given to both physician and patient a false idea of safety, for many have relied and still do rely upon milk that has been sufficiently sterilized as being perfectly safe for feeding. Unfortunately, no amount of heating will purify a foul milk, and we must reach the conclusion that, whether we sterilize or not, a comparatively clean milk is absolutely essential to infant feeding.

Admitting, then, that sterilized milk is not so good a food as raw milk, and admitting that sterilization is unable to redeem foul milk, we are compelled to conclude that we must have a comparatively pure milk, however we may choose to give it, and that sterilization reduces the food value without offering any compensating advantages. This clean milk needs no sterilization or pasteurization, and suffers appreciably by the process.

Pasteurization has the objection urged against it by Koplik that it is in nowise satisfactory, and that it is apt to set up conditions of diarrhœa and gastro-intestinal irritation. McAllister says that it has always proved disappointing to him. Vaughan maintains that it is not desirable, and Cotton says that if clean milk is secured it is worse than useless; and so on.

The two conditions that might seem to indicate sterilization are: (1) If the milk is invaded by bacteria, but not altogether foul; (2) as a means of preserving milk against future contamination. In the latter case sterilization does utterly no good, for milk which has been cooked is far more easily contaminated than raw milk. Of the former consideration, I have only to say that we can never expect to find a milk entirely free from bacteria, for the bacterial invasion begins before the milk leaves the udder; but such invasion is not necessarily deleterious if the milk is used within any reasonable time after milking, and certainly would not be so objectionable as a sterilized milk. Further, it may be said that a milk invaded by pathogenic bacteria would in all probability be impregnated with toxines before sterilization was ordinarily begun. In this case sterilization would be futile. We must also admit, with McAllister, that the facilities for properly sterilizing milk and the skill to do so are not commonly found in the average home, and that the housewife is apt either to cook the milk until its food value is gone or to apply so little heat as to merely establish an ideal incubator for the bacteria present.

With this outlook, I deemed it worth the while, when Trinity Diet Kitchen for Infants was opened in the poor quarter of Chicago, to begin a supply of fresh, raw, rationally modified cow's milk. In this idea I had the hearty approval of my colleague, Dr. Marcus P. Hatfield, and we have both been more than satisfied with the results.

As all things are experimental in the present chaotic state of infant feeding, so was this attempt to feed babies in most unsatisfactory hygienic surroundings upon unsterilized milk, and it was my intention to resort to sterilization in case it was ever indicated. It seems sufficient to say that we have gone through the present summer, with a week or ten days of the hottest weather that Chicago has ever known, and in the midst of a shocking infant mortality, with a remarkably low death-rate and hardly any complaint of fresh milk souring or becoming rancid.

Our first care was to procure a good, clean, certified milk, such as can be purchased in any city at only a slight increase in price over that of the ordinary dairy milk. The results that we attained are doubtless due, to a certain extent at least, to the unvarying purity and good quality of our milk, which is the product of the excellent dairies of Mr. H. B. Gurler, of De Kalb, Illinois, a man who, by his intelligence and exact knowledge of milk production, has received a well-merited recognition by the physicians of Chicago. In his efforts to retain certain proportions of the milk's elements, he has not resorted to sufficient manipulation to effect the nutritive value of the milk; and, while not absolutely constant in its percentages, the milk shows no greater variation than mother's milk is known to show under normal conditions.

As the basis of our modifications, which we have not regarded necessary to push to minute fractional percentages, on account of the realization of the above-mentioned normal variation in the breast milk, we have used milk of four and six per cent. fat. While these may vary at times a fraction of one per cent., we bear in mind the remark of Jacobi that, were these slight variations as dangerous as they are made out to be, there would not be one living baby in all creation.

I have no intention of elaborating upon our methods of modification, except to say that we follow the method of dilution and the addition of cream and milk sugar to bring up the percentages of fat and carbohydrates—the method practically as laid down in numerous text-books—except that we begin with rather more proteids, and decrease as the age of the child increases, in imitation of the process of normal lactation and as suggested by the Adriances, Zahorsky, Bell, Pfeiffer, Koenig, Klemm, and others. While this is directly opposite to the custom usually followed, the results have been gratifying, and the method may to some extent account for these results.

The food, as prepared, is packed in sterile jars and placed in large buckets of ice, in which way it is carried home by the mother. If placed in a cellar or in some way protected from heat, this ice will preserve the food the greater part of the day. Each morning the infant is brought to the kitchen for inspection and the weight and character of the stools are regularly noted. At the same time the nursing bottles and nipples are inspected and the parents are repeatedly warned and advised regarding the proper methods of feeding. Aside from this, it is our custom to have our superintendent and nurses call at the homes of the patients to see that our directions are carried out.

During the summer about 700 applications for food and medical care have been made, invariably for babies more or less ill; for so long as the infant is comparatively well these people see no necessity of asking our assistance. Our total mortality has been three.

I appreciate that, at most, this paper can be considered merely an argument favoring the feeding of fresh, raw milk, by well equipped institutions with the patients under more or less medical supervision. As to the success of raw milk feeding without such supervision, all is speculative. Certainly such feeding could not be less satisfactory than that with sterilized milk under the same conditions, and I am convinced that, could the parents be educated into securing the certified milk, or could the municipal government demand that all milk be pure and certified, the result would be eminently more gratifying.

It is certainly true that in every large city this pure and wholesome food can be secured by people of very modest means, and it is an accepted fact that the purity of the milk is vastly more important than the degree or character of modification. At any rate, there can be no excuse for the charitable institutions that supply milk to the infants of the poor boiling it and reducing its dietetic value before giving it out.

Our mortality with raw milk taken into the filthy and unhygienic homes of Chicago, in 700 cases, was three-sevenths of one per cent. This was our midsummer mortality. It might be a better argument than any other I can offer to inquire into the mortality statistics of those institutions that use pasteurized or sterilized milk.

SEVERE HÆMORRHAGE AFTER OPERATIONS ON THE THROAT AND NOSE; REPORT OF FIVE CASES.*

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THE five cases to be reported in this paper occurred within a period of about ten years. They may be of interest on account of certain characteristics belonging to each one, as well as serving for examples of the unexpected dangers and complications which are almost unavoidable conditions attending operative work in the nose and throat. The fields of operation lie within passages whose functions are of vital importance, whose calibre cannot be narrowed or closed, except for comparatively short periods, whose structure makes the operative fields difficult to approach and to keep within range of vision, and whose very rich blood supply comes from vessels remote from the seat of operation. The final distribution of these vessels, in the area involved, are in numerous small ramifications, anastomoses, and plexuses, that render the control of hæmorrhage a very different problem than is presented in the surgery of other tracts of the body.

We cannot, however, escape the necessity for operative work, with all the technical difficulties involved and the dangers attending its performance.

CASE I.—The first case to be reported was one of sæptal displacement complicated by the existence of a ridge of exostosis along the upper margin of the vomer. In operating on this patient, now, I would do an Asch or a Watson operation. At that rather long-ago time, I did a Roberts crucial incision operation, and, after replacement of the curved cartilaginous sæptum, sawed away the projecting ledge of bone and cartilage, which extended well across the inferior meatus of the left nasal passage. Hæmorrhage was no more than is usual in such cases. To protect the wound caused by the saw, and to support the replaced cartilaginous sæptum, a pledget of iodoform gauze was fitted into the left nasal passage. This remained thoroughly aseptic and was removed on the fourth day. Immediately following its removal, a severe hæmorrhage occurred from the wound caused by the Bosworth saw. Bleeding was profuse, and failed to stop after application of a dull-heated electrocautery point. It was controlled only by plugging the left nostril, and, in spite of the packing, oozing occurred at intervals for about two days.

The patient, a young, overworked theological student, was much weakened, and I kept him in the German Hospital for about ten days. This man had bled profusely from slight cuts during his boyhood, but could give me no clear history of hereditary hæmophilia in his family.

CASE II.—This case was that of a robust-looking boy of two years of age. The faucial tonsils were greatly hypertrophied, their free surfaces being almost in contact in the median line. My intention was to excise both tonsils. I excised a large portion of the left tonsil, under general anæsthesia, using tonsil scissors and forceps for this work, as the lymphoid mass was too large to be included within the ring of an amygdalotome of the ordinary size. Another reason for avoiding the amygdalotome was the fact that the tonsils were adherent to the faucial pillars, and needed careful excision. The one closure of the scissors, which removed the main bulk of the left tonsil, was followed by a really very severe hæmorrhage, the blood gushing from the mouth in a manner that would indicate the cutting of a vessel of considerable size. I could find no one special point of bleeding, and it was an uncomfortably long time before I could arrest the flow. This was accomplished, at last, by grasping as much as I could of the entire cut surface in the jaws of a large hæmostat.

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*Read before the American Laryngological Association at its twenty-second annual congress.

The hæmostat was left in place for about one hour and removed with considerable anxiety on my part. Fortunately, there was no recurrence of hæmorrhage. This child was left weak and anæmic, and required careful feeding and medication for two weeks before complete recovery. An uncle of this child, on the mother's side, had such severe hæmorrhages following very slight injuries that the diathesis of hæmophilia could be established in this family.

Case III.—This case was one of excision of hypertrophied faucial tonsils, the patient, a woman, thirty-one years of age. The operation was done with an amygdalotome (Mathieu's). Hæmorrhage commenced, very soon after excision, from the right tonsil. A good-sized stream of blood spurted from a point just behind the anterior faucial pillar, about one-fourth of an inch below its junction with the soft palate, and streamed across the fauces. This bleeding point was easily grasped with a hæmostat, which was clamped upon it for about an hour. After removal of the hæmostat there was no recurrence of hæmorrhage.

Case IV.—The fourth patient was a young married lady who suffered from nasal occlusion and intranasal pressure in the nasal chamber of the left side. On the lower turbinate of this side was found a small papilloma. This dendritic growth, as well as the entire nasal mucosa, was unusually pale. The turbinates of both sides of the nose were of the doughy consistence, when felt with the probe, commonly noticed in cases of long-standing vasomotor paresis. As the little papilloma appeared to be a very trifling affair, I removed it with the cold snare, meaning to bind down the turgid mucous membrane of the turbinate from which it sprang, at a later visit, by means of an electrocautery incision. The patient returned to my office within half an hour after this little operation, pale and exhausted from a severe hæmorrhage from the surface occupied by the papilloma. Packing with borated gauze was the only effective means of stopping the bleeding, although the usual procedures were tried in turn. It was fully one week before this patient could be relieved from the annoyance of gauze packing, oozing occurring very soon after the removal of pressure. I could not obtain any history of hæmophilia in this lady's family. The patient had been through a long season of social and domestic engagements and cares, and was in a condition akin to neurasthenia. She seemed much improved in health after the unpleasant experience of the hæmorrhage, probably from the enforced rest and supporting treatment.

Case V.—My last case, and the only one with a fatal termination, occurred in February of this year. A child of seven years of age was brought to me at the German Hospital suffering with all the manifestations resulting from mouth-breathing. The boy was anæmic, of very fair skin and pale mucous membranes, but well nourished and with normal heart, lungs, and kidneys. There was a large nasopharyngeal adenoid mass which greatly blocked the nasopharyngeal space. The nasal sæptum was so badly deflected to the left that the portion above the anterior nasal spine, from the nasal floor upwards, was in contact with the margin of the nasal process of the superior maxilla of the left side. The nares were both very small. I knew that removal of the "adenoid" alone would not give this child free nasal respiration. The parents were extremely anxious to have the condition relieved, and I felt that the feeble health of the child could readily be due to the nasal obstruction, pressure, and the resulting mouth-breathing. In this case, I failed to investigate regarding the possibility of hæmophilia, although, since the tonsil case, already reported, I had made this investigation a matter of routine in all cases presented for operation. After the operation had been performed on this boy, and we were in the midst of our trouble—soon to be told—the child's mother remarked in a casual sort of way, that if the little boy's older brother had been the patient, she would feel anxious about the hæmorrhage. It was then learned that the brother was a bleeder, having dangerous hæmorrhages from the slightest cuts, and that one cousin and one uncle on the mother's side were well-marked cases of hæmophilia. My patient had suffered from the not-uncommon swellings of the joints, called in his case rheumatism, and the extensive ecchymoses following contusions, observed in subjects of hæmophilia. He had never had any severe bleeding.

The operation in this boy's case was an Allen's supralabial resection operation for the displaced nasal sæptum, and an excision of the large nasopharyngeal "adenoid." The latter was removed by forceps, guided by the operator's finger. There is seldom any severe hæmorrhage attending the Allen operation, a very simple operation, quickly done and most effective. In this case it was no more than usual, while the bleeding from the "adenoid" excision stopped promptly at the completion of the operation. The child seemed to be in very good condition after the operative work. I believe, however, that, during the night, there was more or less steady oozing of blood, which the child swallowed. The first visible bleeding, however, was not seen until the following morning, when the child was given his breakfast. Light-colored blood then spurted in a rapid stream from the nose and nasopharynx and from the incision in the frenum of the upper lip. It was a hæmorrhage so severe as to alarm the experienced resident physician of the hospital.

This hæmorrhage was controlled only by packing with iodoform gauze and placing firm tampons in the posterior nares and nasopharynx. We were never able to free the parts from tampons, as oozing would begin and increase rapidly a very short time after removal. Ergot was given in large and continued doses, strychnine hypodermically, and brandy. Transfusion of normal salt solution was tried. The child lived for four days after the operation, and looked completely exsanguined before his death. The temperature ranged from 104 to 106° F. during the last thirty-six hours. All bleeding seemed to be under control during the last two days of life, but the patient never rallied from the excessive loss of blood and shock caused thereby. The operation was performed on a Friday and the child died on the Tuesday following.

In two of the cases reported in this paper, hæmorrhage followed excision of the faucial tonsils. The blood supply of the tonsils is peculiarly rich. The tonsillar artery, from the facial, divides into numerous small branches at the base of the lymphoid mass. My experience is that it is seldom cut, unless a very complete excision, involving the entire tonsil, is performed. We rarely, if ever, have to do such excisions.

The ascending palatine artery comes also from the facial, and is distributed along the anterior face of the tonsil, the anterior faucial pillars, and the soft palate. I believe that this is the vessel which most frequently causes trouble.

Fortunately, the point of division is almost invariably within easy reach of a hæmostat, and I have found this simple instrument final in its action, when other means have been more difficult of application and have failed.

Dr. Dawbarn, of New York, describes a ligature, run through the tissues somewhat like a purse string, in general shape like a square, and looped at each corner. This is applied and pulled tight, but I fail to see how any one could stitch such a ligature around the bleeding surface, considering the circumstances attending a hæmorrhage from the tonsil. The tonsil pad, arranged to squeeze the bleeding mass between two points of pressure, the one on the tonsil, the other applied below the angle of the jaw, externally, seems to me less rapid of application, less sure in action, than the hæmostat, and quite as uncomfortable for the patient. The ascending pharyngeal artery from the external carotid is sometimes such a large vessel that its pulsations can be distinctly seen when inspecting the pharynx. It ascends in the posterolateral wall of the pharynx, well back of the posterior faucial pillar, and sends a branch to the tonsil. The internal maxillary also contributes to the tonsil's circulation by means of a branch from the descending palatine branch of this artery. If ligation must be resorted to, it would seem best to tie the external carotid. One of the cases reported was unquestionably a subject of hæmophilia, and one other case also probably had this diathesis. Several members of the American Laryngological Association have reported experiences with this class of patients. At a meeting of the laryngological and rhinological section of the New York Academy of Medicine, February 23, 1898, Dr. J. A. Kenefic reported a case of adenoid excision in a bleeder which terminated fatally. At this same meeting, Dr. Newcombe mentioned one fatal case of his own, from the same operation, and stated that he had had three cases of severe hæmorrhage. Dr. Newcombe stated that he had found about sixteen cases, in all, when investigating the subject of hæmophilia, one or two of which had proved fatal.

Dr. Delavan had reported a fatal case of his own, in a child four years of age, and three fatal cases in the practice of other surgeons. Dr. Wright reported two cases in young women, seventeen or eighteen years of age. Dr. Van der Poel reported two cases of severe hæmorrhage after adenoid excisions, but it is not stated that these cases were bleeders.

The clinical conditions associated with hæmophilia are now pretty generally known, although we are quite as ignorant of the cause as were the physicians of the Twelfth Century. We know that hæmophilia is transmitted from the mother to her male children, while the female children, free themselves from the habit, transmit it to their male children. We know that bleeders present frequently the condition of hæmarthrosis, mistaken at times for rheumatism; that ecchymoses and extensive extravasation of blood occur after slight bruises on the surface of the body; that strange, infrequent cases of effusion beneath the scalp, or, apparently, in the cerebral ventricles, occur, causing cephalhæmatoma, giving the appearance, in young children, of hydrocephalus.

The pathology is in doubt, as the theories of thin vessel-walls, or of failure in the fibrino-plastic elements of the blood, are hypotheses, still requiring positive proof.

In looking over the literature of hæmophilia, one is struck by the great fatality attending surgical work upon bleeders. Dr. C. T. Dent, of London, believes that a mental peculiarity is common among subjects of hæmophilia which leads them to conceal, or to deny, their tendency to hæmorrhage. He cites one fatal case which would appear to support this idea, and he suggests that bleeders, as well as epileptics, should wear a medal or label hung about their necks setting forth their infirmity. Dr. Nash, of Bedford, England, has noticed the mental peculiarity mentioned by Dr. Dent, but favors a law which would compel bleeders to have the word "hæmophilia" or "bleeder" tattooed upon the skin, thus posting a notice of danger, so that all surgeons may be independent of the statements of the subjects themselves.

The whole question of hæmophilia is most interesting in itself, but would lead me far afield from the strict limits of my paper. I am convinced of one thing, however, from my own experience and that of many others, that all operative procedures in the range of the laryngologist's and aurist's work should be avoided entirely in all cases where a reasonably certain diagnosis of hæmophilia can be made from the family history, even though the tendency to bleed is not pronounced in the patient's personal history. This rule would apply with especial force to men, as experience shows that males are vastly more apt to manifest the bleeding tendency than females are. If there could be made any exception to this rule regarding operative work, it could be only in cases of extreme urgency and with a full understanding on the part of all concerned regarding the dangers attending the situation.

The accidents reported in the five cases, briefly outlined, all occurred in the course of operations performed, as a rule, without any such complications, and which are, perhaps, among the most frequent procedures in the range of nasal and throat surgery. They indicate the possibilities of the unexpected, and suggest that all strictly surgical work within the area of the upper respiratory tract should be undertaken with every precaution safeguarding the patient. The only safe plan is to make a careful clinical study of each case presented, unless the patient has been under the care of the physician of the family. We should know the diatheses of our cases quite as thoroughly as the condition of the lungs, heart, and kidneys. With women and children, especially, as well as with mentally overworked men, we should take into account the whole physical situation of the subject, and see that hygienic, dietetic, and therapeutic measures are taken to prepare the case for operative work. In most instances such care will not be absolutely required, but the search for its requirement may effect a successful result instead of failure, or even disaster. This is a more complex problem than the mere discovery and correction of a local lesion. The man who will excise any and every variety of hypertrophied tonsils at the first meeting with his patient, or who will select this first opportunity to snare off posterior hypertrophies of the turbinated bodies, saw off sæptal exostoses, or remove nasopharyngeal "adenoids," is not a judicious operator, and will most surely get himself into trouble. I believe that the circumstances and physical conditions attending the surgery of the nose, throat and ear are technically more difficult to meet than are those of most of the so-called "big operations" on the larger areas of the body, and that they are attended with quite as many chances of danger. We obtain little credit for our successes, because every general surgeon believes that he can do such work quite as well as the laryngologist or aurist, but we need not expect consideration from any one if the results are other than good. Therefore, for the safety and interest of the patient, in the first place, and, of minor importance, for the surgeon's own peace of mind and satisfaction in good results, the reproach of over-caution need not be feared.

In every case presented where operative work, except of the simplest character, is required, a careful consideration is needed of all conditions associated with the patient and with the work to be done.

THE SURGICAL TREATMENT OF LARYNGEAL CANCER.*

By J. SOLIS-COHEN, M. D.,

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Dr. Mackenzie in beginning his paper struck the keynote with reference to surgical procedures in carcinoma of the larynx, namely, the removal of the larynx and the infected lymphatic glands. The statistics given by Dr. Delavan confirm his opinion. Before any surgical procedure is to be undertaken, the surgeon should get the patient's consent for him to do whatever may be deemed necessary with respect to the case. Suppose you have a case in which you suspect carcinoma, and the infiltration is not diffuse but circumscribed, you should cut a piece of the growth out, as well as a section of healthy tissue, when practicable, with a punch forceps. I believe the proper procedure would be to make such a section, then examine the specimen under the microscope. If the parts are found to be healthy, you may await further developments. If not, some other procedures should be resorted to. If the growth affects the vocal band, a thyreotomy may be performed and a knife be employed to remove the circumscribed diseased area. I recall a case in which I did this operation in 1867. The patient lived twenty-five years and died of apoplexy. With regard to extirpation of one half of the larynx, I hardly think that is reliable. The only benefit to be derived would be that the patient would be able to speak perhaps a little better than he would without any larynx. This question must be decided after a careful examination of the parts *in situ.* If the growth approaches anywhere near the median line there is no doubt of the propriety of total laryngectomy. I have seen cases where the growth did not look larger than a small pea, but when the larynx was opened and the parts removed we found the concealed portion of the tumor four or five times larger.

Supposing you are going to perform a laryngectomy, what is the procedure to be adopted? In the first place, one of the great dangers after operation, supposing that the patient survives it, would be from an accumulation of septic material in the lungs, and the patient might die of septic pneumonia. This is to be prevented, not by tamponing the trachea, but by operating with the patient in the semi-inverted position, having the head lower than the shoulders. In this way the blood will not run up hill; much of it will run out of the mouth and of the nose, although a certain amount of blood will be aspirated in the efforts at coughing, etc. Rubber tampons are not reliable. Sponge tampons sometimes allow trickling into the valves. There is no way by which we can absolutely insure the patient from the access of any bloody material into the lung tissue. The best plan is to operate in what is called the Trendelenburg, or in the Rose position, with the head over the side of the table.

A question which comes up, and which is an important one, in performing this operation, is whether or not it is better to do a preliminary tracheotomy. Surgeons are divided in this respect. Some think it is subjecting the patient to unnecessary peril to perform two operations. If a preliminary tracheotomy is not performed, there is danger of descent of the trachea into the mediastinum. This can be avoided by a preliminary tracheotomy. If you do this two weeks before the major operation is undertaken, the parts will become agglutinated and the trachea will be retained in a favorable position; otherwise there will be more or less strain on the sutures and you will have difficulty from the retrocession of the trachea.

Then, another question which comes up is whether or not the epiglottis shall be retained. Upon general principles it is best to retain it. There are successful cases on record in which the epiglottis has been retained because of its having showed no evidences of disease and has been no detriment to the patient. The majority of surgeons, however, believe that the epiglottis and everything should be removed. I know of successful cases in which the epiglottis has been allowed to remain, one of the patients living subsequently at least eight years. In order to prevent septic pneumonia, it is well to shut off, if possible, all communication from the mouth to the air-passages. This can be done by suturing the upper portion of the trachea to the cutaneous wound, it being necessary to make a slit in the upper portion of the trachea. If you attempt to unite the severed trachea to the skin, in a circular condition, you will have a contraction that you would not otherwise have, and you will not have as good an opening. It is best to slit the upper portion of the trachea, take it to the side, fasten it to the skin, bring the other portion down, so in that way the patient is not inconvenienced by wearing a tracheotomy tube.

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*Read before the American Laryngological Association at its twenty-second annual congress.

Another important point in the procedure is to avoid all dressings. If you pack the wound after the removal of the larynx, if the patient has the disposition to swallow, there is irritation of the constrictor muscles. It is unnecessary to put in an œsophageal tube into the larynx for the purpose of nutrition. You can nourish the patient for two or three days by enemata. The larynx should be removed from below upward; the lymphatic glands should be taken away, whether diseased or not, and in the after-treatment the foot of the bed should be elevated, so that during all treatment the patient shall be in the inclined position. The best results have followed this method.

The case I wish to refer to was operated upon in May or April of last year. Dr. Keen operated. I did not see the case at the time, but I saw the patient only a few days ago. The first attempt was to remove a portion of the larynx endolaryngeally, and afterwards a thyreotomy was performed for the removal of a small growth. There was subsequently a recurrence, and total laryngectomy was decided upon. This operation was done; the patient is well. He is a clergyman, sixty-five years of age.

The after-treatment of the patient requires the combined services of a surgical mind, and I am one of those who believe that every laryngologist should do as much as possible of his own surgery. I have always advocated it, and if he is in doubt as to his ability to do these operations, he should have by his side the proper assistance and do the operation on general surgical principles. At all events, he should not allow all his surgical cases to go to the surgeons.

Correspondence.

LETTER FROM THE PHILIPPINES.

Medical Conditions in the Philippines.—Need of More Surgeons.—Objections to the Service.—Diseases in the Philippines.—Provisions to Care for Lepers.—The Board for the Study of Tropical Diseases.

Philippine Islands, July 7, 1900.

Rumors in regard to the status of the medical department of the army in the Philippines have been more or less general, and in view of the fact that more physicians are needed here it may be well for those who have under consideration the desirability of applying for such service to have a fair knowledge of some of the conditions which exist in these islands.

Technically, the army here is in the field; actually, the troops are stationed at posts in small towns or villages, quartered in the native buildings, and from time to time, as military exigencies demand, expeditions are sent out against the insurgents, or, to use the euphemistic term now in vogue, the robber bands, who make it impossible for a man alone to traverse any island in the group. Consequently service here is actually very much like that at a frontier post in the old days when there were predatory bands of Indians, and part of the garrison was in the field for several months in the year.

The service is like that, and yet unlike it, for at the frontier posts the troops were fairly well housed, they were supplied with barrack furniture, there were quarters for the officers, and as far as possible comfort prevailed. Here, because it is officially held to be field service, the troops frequently have to occupy bamboo and palm buildings that have not been and cannot be disinfected, they have no barrack cots, their chairs are the boxes that held commissary stores, and their mess-tables are pieces of board they may have chanced to pick up. The officers are huddled together in a fashion that admits of no privacy, as it is the rule to rent as few buildings as possible, and neither barracks nor quarters are being constructed.

The medical force here consists of army surgeons, surgeons in the volunteer staff, surgeons in volunteer regiments, and surgeons under contract (acting assistant surgeons). The latter are more numerous than all the others combined, and have come here under contract for one year.

Very recently the chief surgeon of the division in Manila stated that one hundred and twenty medical officers were required to supply the demand at various posts in the Philippines, but none were available for the purpose. If the report, made semi-officially, is true, that the War Department purposes to throw all the onus of the existing situation on the few regular regiments out here, and the volunteer regiments will be returned to the United States in the autumn, such a move will take away seventy-five regimental surgeons, but will release a number of acting assistant surgeons who may be available for other duty.

But many of the acting assistant surgeons do not desire to renew their contracts. Only a short time ago there were over twenty requests from acting assistant surgeons to have their contracts annulled, as they had served the required time and wished to return to the United States. As there were no other surgeons available, the authorities were compelled to deny the request. This meant that if the contract surgeon left, he did so without authority, he was not furnished transportation to the United States or to his home, and he lost his pay for the time spent in traveling to his home. Notwithstanding these facts, in one instance at least, the contract surgeon, when denied annulment of contract, went home by a merchant line. And in this matter the contract surgeon was not treated differently from the volunteer officers, a large number of whom had sent their resignations to the adjutant general of the division, for transmission to Washington, but, as the officers were needed, the resignations were placed on file in Manila, and the officers were thus compelled to remain in the service.

The reluctance of some of the contract surgeons to remain in the army is due to satiety in their search for new experience in these islands, to a recognition that there is no future for them in this service, and to their treatment by the military authorities. Many of the young physicians who came here were desirous of having the advantage of foreign travel and residence associated with professional work, and after some months of such life they felt that they had acquired all the advantages that were likely to arise, and they wished to return to their homes.

The want of a future for the acting assistant surgeons is very unfortunate. They are civilian employees; if one is killed by the insurgents, those dependent upon him will receive no pension; if he himself is permanently disabled in consequence of wounds or sickness, he can receive no pension. No matter how long he may serve, his only recompense is a hundred and fifty dollars a month, and his consciousness of duty properly performed. It is very unfortunate that the surgeon general's recommendation of the bill to commission these physicians as first lieutenants and captains of volunteers did not receive enough consideration to effect its enactment. It is not creditable to the medical profession that its members alone occupy this anomalous position in the army.

In reference to the treatment of the surgeons by the military authorities, it is directed that those on duty should be utilized "to the extent of their professional and physical ability." And this is done; there are posts where the surgeon has to visit the sick at as many as eight sub-posts, traveling under an armed escort. And such travel is a severe tax on the physical ability under a tropical sun or during tropical rains. And when he returns to his quarters he has to go to a room which he occupies with some one else or to a room that may be used as a thoroughfare to the room of another officer, or to a room whose thin partitions afford him no privacy from the occupant of the adjacent apartment.

But this want of privacy in respect to quarters is general in these islands. Everywhere officers are crowded together, even those on staff positions, except in Manila, who should receive their commutation and select quarters where they wish. This exists because it is cheaper to crowd the officers and cause them more or less discomfort, than to rent enough buildings to allow of allotment of legal quarters, or than to pay them their commutation for quarters. In this respect the contract surgeon is treated no worse than an army surgeon of thirty years' service, who is assigned a room in a house occupied by half a dozen other officers, and who has virtually no privacy.

This condition is not the fault of the medical department, but of the commanding general who orders it. Instead of the efforts that were omnipresent in Cuba and Puerto Rico to mitigate the unpleasant features of foreign service by providing as far as possible for the comfort and convenience of the officers and men, in the Philippines this phase of service life seems to have been deemed irrelevant, and the troops are required to endure avoidable discomforts.

This ill-advised plan will be more expensive in the end, because if in addition to the nervous wear and tear consequent upon the exhausting effects of residence in the tropics, there is the wear and tear caused by uncomfortable quarters and want of suitable facilities for the maintenance of mental and physical hygiene, there will be a heavy return of nervous diseases.

While the sick rate here is not heavy, its exact figures will never be known. As has been said, there are many posts which have no surgeon; in fact, to one post where there is a surgeon there are six where there is none. In the army, if a soldier is excused from duty he is either sick in hospital or in quarters; those who are sick enough to go to the hospital from a sub-post become subjects of record, but the many at such posts who are sick in quarters do not come under the observation of the surgeon, and consequently are not recorded. So the statistics are likely to underrate the morbidity of service in these islands.

Dysentery and so-called malarial fevers continue to cause large numbers of sick. There may be some question in regard to the malarial fevers, because in few places is any examination of the blood being made regularly in fever patients.

Small-pox occurs very infrequently among the troops, for they have been thoroughly vaccinated. But it is the bane of the population in the islands. As much as possible the people are vaccinated by the post surgeons or by privates of the hospital corps sent to the smaller towns to perform this duty. In this hot climate, vaccine virus deteriorates very quickly, and the difficulty of obtaining transportation and the lack of commercial lines to many of the places where troops are stationed, make it impracticable to supply fresh virus to vaccinate the people. The medical department should have steam vessels under its jurisdiction to perform the important duty of distributing fresh virus as well as other supplies.

An attempt has been made to deal with the question of leprosy in the islands, and a board of officers has been ordered to select an island for the segregation of lepers, to prepare plans and estimates for suitable buildings thereon, to submit an estimate of salaries for the necessary officials and employees, and to fix the ration and other allowances for the support of such leper colony.

The board of officers appointed for the study and investigation of tropical diseases is said to have made but little progress in its work. The small number of surgeons available has necessitated the assignment of the surgeons on that board to other duties in addition to their investigations. This is unfortunate, because the officers constituting the board are qualified to do excellent work, and with authority to visit all hospitals and the different islands, adequate laboratory equipment, and their entire time available to make their investigations, they would present results that would be comparable with those that the lamented Woodward produced from the material of the civil war.

A RÉSUMÉ OF SOME PAPERS PRESENTED TO THE THIRTEENTH INTERNATIONAL CONGRESS OF THE MEDICAL SCIENCES.

(*Continued from page 373.*)

The following papers are abstracted from the *Comptes rendus* furnished by the *Agence centrale de la presse scientifique internationale.*

Section of Obstetrics.

The Ætiology and Nature of Puerperal Septicæmia. By M. Doléris.—See *New York Medical Journal,* August 18th, p. 303.

The Ætiology and Nature of Puerperal Fever. By Dr. Menge and Dr. Krönig.—See *New York Medical Journal,* August 18th, p. 303.

The Ætiology and Nature of Puerperal Infections. By M. Pestalozzi.—See *New York Medical Journal,* September 1st, p. 389.

The Treatment of Seeming Death in the New Born.—Dr. Ribemont-Dessaignes said that infants born apparently dead showed one or other of the following groups of symptoms, viz.: absence of cry, flaccid members, complete muscular relaxation, but persistent heart beat, though often feeble and at long intervals. Sometimes the cutaneous surface was bluish, purplish, or almost black, the face tumefied, the eyes protruding and the conjunctiva suffused. This condition constituted cyanotic asphyxia. Sometimes, on the other hand, the skin was white and pale, the mucous membranes equally blanched, the heart-beats imperceptible; this state had been wrongly termed pale asphyxia. It was really syncopal. Finally in certain cases mixed forms were found, the characteristics not being sufficiently clearly marked to enable the cases to be labeled either as asphyxial or syncopal. A consideration of these clinical facts would lead us to the course to be pursued in the respective cases. The asphyxial form was the most frequent in practice. It was due to the obstruction of the air passages by mucous fluids or amniotic liquid charged with meconium; whence it was necessary (1) to disembarrass the respiratory passages; (2) to facilitate the entrance of air into the lungs so as to reestablish or regulate the cardiac or pulmonary functions. Very frequently the mucosities occupied only the back of the mouth, consequently a simple wiping with the finger wrapped in a piece of linen sufficed to remove the obstruction and stimulate to the first inspiration. Cutaneous frictions, simple or with alcohol, ether, brandy, eau de cologne; hot baths, mustard baths, or baths alternately hot and cold, caused a cutaneous revulsion forming most often a point of reflex departure ending in respiratory movements. On this principle was based the excitation of the mucous membrane of the nose, mouth or pharynx; also Laborde's rhythmical retraction of the tongue. Very frequently these procedures, however, were insufficient, and it became necessary to have recourse to artificial respiration. Numerous measures had been devised with the object of causing the air to inflate the lungs; mouth-to-mouth insufflation, and the methods of Sylvester, Schultze, and Rivière. These methods, however, fulfilled only one of the two indications mentioned above. A consideration of these indications had led the author to the insufflation method as being that of choice, and had given rise to the following data which had resulted in the construction of an instrument bearing his name: 1. The insufflation should be instrumental; 2. The apparatus should suck out the mucosities; 3. it should convey to the lungs a quantity of air. After referring to the objections to earlier instruments the author described his own, for which he claimed the following qualities: 1. The curvature and the arrangement of the terminal portion rendered introduction easy. 2. The curve insured its retention in the respiratory tract. 3. It prevented reflux of air from the larynx. 4. It made easy the aspiration of fluids and mucus obstructing the bronchial canals. 5. Its proper insertion into the larynx or its faulty passage into the œsophagus was easily ascertainable. 6. The rubber bulb allowed the passage into the lungs of only a quantity of air sufficient to distend them to their proper capacity, thus avoiding rupture of the pulmonary vesicles, which were very fragile at birth.

Artificial Respiration in New Born Children.—Dr. Champneys, of London, described the two stages of asphyxia, "apoplectic," or livid, and "syncopal," or pale, and their mutual relations. He said that the worst cases were common when the head came last, so that pressure thereon was not the cause. Asphyxia was an exaggeration of physiological "air hunger," or "necessity for breathing." He described its mode of production and the causes and consequences of premature inspiratory efforts. He cited some remarkable instances of the survival of seemingly dead children. After discussing the prognosis and diagnosis he dwelt on the uselessness of reflex stimulation in "pale cases." The objects of artificial respiration were stated to be: 1. removal of foreign bodies from the air passages; 2. procuring the patency of the air passages; 3. excitation of the circulation; 4. ventilation of the lungs; 5. excitation of the circulation dependent on ventilation of the lungs. *Inter alia,* he considered the method of Schultze as the only one tending toward patency of the air passages. Traction of the tongue, he said, did not directly raise the epiglottis; tilting up of the chin was useless in children, as also was bending the head backward. As regarded the circulation, pressure on the præcordia directly raised it, but there was a theoretical objection to encouraging the circulation of impure blood. For ventilation of the lungs, only Schultze's and Silvester's methods were efficient. The methods of Marshall Hall and Howard were useless for children. He referred to mechanical inflation of the lungs, and touched on the dangers of over-distending the lung till it ruptured, of causing tuberculous infection, and of inflating the stomach.

The Treatment of Seeming Death in the Newly Born.—M. B. S. Schultze, of Jena, endorsed the opinion of Paul Cazeaux (1850) that the asphyxia of the newly born was the result of an impediment to placental circulation during accouchement. The treatment consisted, therefore, in setting in motion as speedily as possible the pulmonary respiration. The venous condition of the blood, the normal stimulus to respiration, is under the circumstances far beyond normal; it no longer provokes the medullary reflex. The medulla may still act under the influence of other imitation, e. g., cold, as when excellent results sometimes follow the momentary immersion of the child up to its neck in cold water. But the asphyxia may be such that the medulla no longer reacts even to these stimuli. The only way, then, to reestablish its excitability is to supply it with oxygenated blood, which must be sought by the establishment of pulmonary exchanges and the movement of the circulation. The author then discusses the various modes of artificial respiration, and thus summarizes his own treatment of asphyxia in the newly born:

1. If the infant is of a purplish color, if any muscular tone remains, do not sever the umbilical cord so long as its pulsations are perceptible. Remove any mucus from the mouth. Excite the cutaneous reflexes. If it does not at once react, cut the umbilical cord, plunge the infant rapidly and for a very brief time into very cold water, then put it into a hot bath. Repeat these alternate immersions until the child cries strongly.

2. If the infant's body is pale and flaccid, like a corpse just dead, waste no time on trying to induce reflex irritation. Cut the umbilical cord instantly, remove all mucus from the mouth and pharynx by pulling out and pressing on the root of the tongue so as to elevate the epiglottis, then submit the child to artificial respiration either by Silvester's or the author's method. Begin with a prolonged movement of expiration. That is the best means of detaching, not only from the greater, but also from the lesser bronchial tubes, any mucus that may have been inspired. After having passed the child from the position of expiration to that of inspiration eight or ten times in one minute plunge it into a hot bath and watch it; you will note the heart-beats become better and more frequent, the skin redder, and the muscular tonus reappear. If in a short time you have not succeeded recommence the movements after a hot bath. The movement of expiration ordinarily causes the first spontaneous breath; then the child is to be immediately put into a hot bath. If, however, the respiration remains superficial, plunge the child into iced water. It reacts immediately. It bends the thighs strongly and cries loudly. The medulla now responds to reflex irritations. Never consider a child born asphyxiated as entirely reanimated until it cries continuously and forcibly.

Section of Physiology.

Sea Water as an Organic Medium. Constancy of the Primary Marine Medium as a Vital Medium throughout the Animal Series.—M. René Quinton set himself to prove, as a result of the work of the laboratories of physiological pathology and comparative embryology of the *Collège de France,* of the Zoological Station of Arcachon, and of the Sea-laboratory of the Museum, at Saint-Vaast-la-Hougue, the following thesis: 1. That animal life, in its cellular form, made its first appearance in the seas; 2, that throughout the whole of the evolutionary series, life has maintained, for its cellular phenomena, inside each organism, that original marine medium, so that every organism is a real sea aquarium where the cells which form that organism live in the same aquatic conditions as originally.

He said that: 1. The aquatic origin of all animal forms was, in the first place, evident. The only animal species which breathed according to the aerian form, all showed, in their embryogeny, a primitive branchial respiration (branchial openings of aerial vertebrates, for instance). In the second place, this aquatic origin was a sea origin. For the river-water forms were never but secondary forms, simply duplicating, here and there, the sea forms which alone composed the backbone, as it were, of the entire animal kingdom. Thus it came about that the disappearance of all river-water forms would only cause the disappearance of one class, four orders, while the disappearance of marine forms would bring about the total disappearance of six groups, eleven embranchments, forty classes, one hundred and eleven orders. Thus all animal organisms derived from marine organisms. The primary cells from which these ancestral organisms were derived were thus, of necessity, marine cells.

2. Animal life, in creating organisms more and more complicated and independent, had always maintained the cells constituting these organisms in a marine medium.

This was in the first place evident as regarded the first organisms of the animal series: Sponges, Polyps, Corals, Medusæ, etc. In these organisms, open, as we knew, to the external medium, the internal medium of the animal was sea-water itself: this sea-water penetrated the whole organisms by numberless small canals which might be likened to capillary vessels. The sea-water itself surrounded all the cells.

In the marine invertebrates of a higher order, a phenomenon of the highest importance took place. The branchial membrane was permeable to salts, so that, by simple osmosis, the interior medium of the animal was still the marine medium, to which fact, moreover, direct chemical analysis bore witness. For hæmolymph had a mineral composition identical to that of sea-water.

Lastly, in the organisms of the animal series of the highest order, those situated the farthest from the marine origin, experience again proved the identity of the vital medium and of the marine medium. The author referred to his researches already published (*Société de Biologie*, 1897-1898), as follows:

A.—A dog which had been bled to the last drop through the femoral artery was reinjected with a quantity of sea-water equal to that of the blood it had lost (the sea-water being put in the condition of isotony). On the next day the animal was running. In a few days the hæmoglobin had been reconstituted and the animal had quite recovered.

B.—Three dogs were injected with sea-water, the first to the extent of 66/100 of its weight, the second to the extent of 81/100, and the third to the extent of 104/100 of its weight. During the whole time the injection lasted the animals hardly showed any deviation from their normal condition. In twenty-four hours they had recovered.

C.—The white corpuscles were the best witnesses of the vital medium of an organism. On the other hand, their delicacy was such that they were reputed to live in no artificial medium whatever. Their life in sea-water was in consequence especially demonstrative. The author purposely made his experiments throughout the evolutive series, on the white corpuscles of the organisms farthest situated from the marine origin (pulmonated molluscs, insects, river fishes, batrachians, reptiles, birds, mammals, man). Corpuscles taken out of all these organisms and suddenly put into sea-water, lived there.

Lastly, direct chemical analysis confirmed this identity of the vital medium and of the marine medium. The salts of the blood-plasma were the same salts as those of sea-water. They even went so far as to retain in both cases, the same order of relative importance: 1. Na, Cl; 2. K, Ca, Mg, S; 3. Si, C, P, Fl, Fe, NH^4, I. More than that, chemical analysis detected in sea-water the presence, in extremely small quantities, of certain elements not generally supposed to exist in the organism. These elements, however, did normally and constantly exist in the organism in quantities very nearly the same as in sea-water. In a work which was shortly to be published (*"L'Eau de mer, milieu organique,"* Sea Water as an Organic Medium), this would be proved at length. These new elements which constituted absolutely organisms of the highest order, were: bromine, manganese, copper, zinc, lead, silver, lithium, arsenic, boron, barium and strontium. They raised the number of organic bodies from 12 or 15 actually known to 26. Five others were foreseen.

From all this work the author deduced the following results: 1. A new law, "Animal life, which took its origin in cellular form in the sea, has maintained, throughout the whole of the evolutive series, in a marine medium, the cells constituting the organisms." 2. A conception equally new of the organism: "An organism, however high the rank it occupies in the animal scale, is a colony of marine cells."

Section on Military Medicine and Surgery.

The Lesions Produced on Man by Projectiles of Reduced Calibre.—Major and Surgeon Louis A. La Garde, United States Army, in a paper on this subject referred to the early history of reduced calibre rifles, the experimental evidence upon animate and inanimate objects by the surgeons of the different governments while contemplating a change of armaments, and the general conclusions based thereon.

He considered the results of gunshot wounds by the projectile of the 7 mm. Mauser rifle as noted in the Santiago campaign, and from such data as the office of the surgeon-general of the United States army was able to furnish at the latest date from the Philippines. The stopping power, explosive effects, bone lesions, especially those pertaining to joints, and the injuries to the viscera were especially dealt with.

Also the treatment of gunshot wounds on the field in accordance with the requirements of the lesions caused by the new bullet, and the rôle which antisepsis played in the general results.

And finally he dealt with the value of the X-ray in the diagnosis of recent and remote conditions, illustrated by a number of skiagraphs of lesions in different parts of the body.

On the Ætiology and Prophylaxis of Typhoid Fever in Armies in the Field.—M. Vincent, Médecin-major of the second class, said that typhoid fever, more murderous than the enemy's bullets, was the product of the same factors in war as in peace, but that in an army on campaign their harmful influence reached its maximum. *Predisposing causes*: these were the age of the soldier and his usual rural origin; the time of mobilization and military operations (summer and autumn); the sameness or imperfection of his alimentation, and the digestive troubles resulting therefrom; the inevitable deficiencies of corporal hygiene and of clothing; the heat of the climate in colonial wars; the density of troops and their constraint in cantonments, bivouacs, fortresses, and while besieging or being besieged; the prolonged duration of war; and the moral condition of beaten armies. Overwork was a predisposing factor of the most formidable kind. *Exciting causes:* The ubiquitous typhoid bacillus, which could maintain itself in a latent condition in the digestive canal and multiply there as a result of the beforenamed predisposing causes, from which source arose epidemics to all appearance spontaneous (Kelsch). The germ was also imported by belligerents coming from infected places. When once started, there was contagion from man to man by all the ordinary means; also transmission by the ingesta. The important part played by the drinking-water had been exemplified in the Egyptian expedition, the Russo-Turkish, Spanish-American, and South African wars. Aliments, especially vegetables, obtained from infected regions, might import the disease. The part played by flies, etc., especially in foreign countries, by contaminating clothes, food, the face and hands, was an important one. The soil was the habitual receptacle of the typhoïd bacillus, which maintained its activity therein for a long time. When infected by the urine, fæces, etc., the soil could transmit the germ to the soldier either directly or through the medium of drinking-water, clothing, etc. Finally, the air, through the medium of floating dust, disseminated by the movement of troops, and containing the dessicated bacilli, was a source of infection.

The exigencies of warfare rendered the prophylaxis of typhoid fever very difficult. On mobilization, malingerers should be eliminated or transferred to the auxiliary forces. When the campaign was begun, each man, or at any rate each officer, should be furnished with instructions pointing out the chief rules of prophylaxis against infectious diseases, especially typhoid. During the assembling, and during active operations, overwork should be restrained so far as was compatible with the actual needs of warfare. For colonial wars, men not under twenty-five years of age should be selected, and an adequate number of carriers should be allowed. Further, the purity and variety of the food; the hygiene of cantonments, etc., especially in regard to latrines; the scourge of flies (Sternberg); the ventilation of tents and barracks, and the cleaning of battlefields, all demanded constant and rigorous surveillance. Suspected water sources should be guarded. Only filtered or boiled water should be drunk, preferably as weak tea or coffee. Alcoholism should be repressed. As to special prophylaxis, the author did not think that Wright's antityphoid vaccination was yet adequately established by proof. Bacteriological tests should be employed to aid diagnosis on the first appearance of any outbreak.

Troops coming from infected garrisons should be made to bivouac apart. The sick should report themselves without delay. Those who were very sick should be relegated to special hospitals, while lighter cases and suspects should be removed far from the field of operations in the early days of the disease. The disinfection of dejecta and everything touched or soiled by the patient was necessary. In cantonments infected houses and localities should be avoided. Places that could not be disinfected should be cleansed and aired. The soil and air should be protected from contamination by fæcal matter; the dejecta burnt, or at least disinfected. Prolonged encampments in one spot should be avoided. In temporary or circumscribed camps, as in besieged places, and among besieging armies, the same care for the preservation of the soil, water, air and environment, should be exercised. If the fever still extended, the camp should be abandoned and the equipment left there for disinfection, and the troops should be bivouacked for at least a fortnight before forming a new camp, so as to give incubating cases a chance to show themselves.

Therapeutical Notes.

Æsculus Hippocastanum for Hæmorrhoids.—According to the *Therapeutic Gazette* for August the following prescriptions are recommended for the treatment of painful hæmorrhoids in the *Agenda Therapeutica* for 1900:

℞	Fluid extract of Æsculus hippocastanum	1 oz.;
	Chloroform	1 drachm.

M.

Morning and evening at meal-times, ten to fifteen drops of this mixture are to be taken in a glass of wine or a little sweetened water; or this:

℞	Fluid extract of Æsculus hippocastanum	6 drachms;
	Fluid extract of hamamelis	2½ drachms;
	Oil of peppermint	2 drops.

M.

Morning and evening at meal-times, fifteen drops of this mixture may be taken in wine or sweetened water.

Creolin for Intestinal Fermentation.—Spoeth (*Journal de Médicine de Paris,* March 25th; *Therapeutic Gazette,* August) uses the following formula in intestinal fermentation occurring in the course of infectious diseases such as typhoid fever:

℞	Creolin	1½ drachms;
	Dilute alcohol	15 minims;
	Extract of licorice, Powdered licorice, } of each	1½ drachms;
	Gum tragacanth	15 grains.

M.

Make into one hundred pills and give one thrice daily.

The Treatment of Malarial Disease.—Dr. J. T. Wilson (*Virginia Medical Semi-Monthly,* August 24th) says that small doses of calomel and colocynth should be given as a preliminary purge. He also uses alkalines in the first stages, viz.: the acetate, citrate and bicarbonate of potassium. When the fever has been broken up a good tonic should be given. The author has had good results from the following:

℞	Sulphate of quinine	1½ grains;
	Sulphate of strychnine	1-30th of a grain;
	Dried sulphate of iron	1 grain;
	Arsenious acid	1-20th of a grain;
	Powdered rhubarb	½ a grain.

M.—Make one capsule.

Sig.—Take one three times daily after each meal.

Persimmon for Stubborn Vomiting.—Dr. K. Shimizu, of Kai, Japan, writes to the *Medical Brief* for September that good ripe Kaki (persimmon) is a valuable remedy for stubborn pregnant vomiting and diarrhœa. It is used internally.

Cassia Occidentalis for Insect Bites.—Dr. K. Shimizu, of Kai, Japan, writes to the *Medical Brief* for September that *Cassia occidentalis* is a valuable remedy for snake and insect bites. The way to use it is to paint it over the part as an infusion.

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THE ACTING ASSISTANT SURGEON.

IN this issue we print a letter from the Philippines written by a correspondent who is well informed concerning the matters of which he writes. Young men are not likely to join the army in great numbers, one would think, if the penny-wise-and-pound-foolish policy of "economizing" at the expense of their health and comfort is to be continued. It is the part of a commander to conserve the capabilities of everybody serving under him, and to work men to the extent of their ability—that is, until they break down—is to invite disaster. It is not to be wondered at that enough medical officers cannot be obtained for the needs of the service in the Philippines if they are never to receive better treatment than our correspondent describes. A man should be well clothed, well fed, and well housed if a fair amount of work is to be got out of him without eventual impairment of his health. Moreover, as our correspondent properly insists, an officer is entitled to privacy in his own quarters. We are sure that the government does not mean to practise cheeseparing at the expense of the army, and it may be hoped that the Secretary of War will overrule any commander who resorts to it.

But discomfort and overwork, which the acting assistant surgeon shares with the commissioned officers, though more overworked probably than most of them, are not the only deterrents from the decision to serve under contracts; he is barred from voluntary associations of officers such as the Loyal Legion, he cannot be rewarded for conspicuously meritorious service or even for deeds of bravery, and no injury or disability that he may incur in the line of duty will entitle those who are dependent on him to a pension. He is not an officer or an enlisted man; he is a mere employee. Give him a commission, and his lot will be materially brightened and he will be capable of better work. Congress might, we think, have adopted Surgeon-General Sternberg's suggestions concerning acting assistant surgeons without any danger of detriment to the nation, and we hope that it will yet come to recognize that such action is wise. Members of the medical profession in general owe it as a duty to their brethren in the army to exert their influence with individual Congressmen to promote legislation in the direction suggested by Surgeon-General Sternberg.

THE WATER FAMINE IN THE BOROUGH OF THE BRONX.

A WELL-KNOWN business man of New York owns a dwelling house situated on high ground a short distance to the east of the King's Bridge station of the New York Central and Hudson River Railroad, in a neighborhood of handsome residences. In a letter to Acting Mayor Guggenheimer, dated August 30th, this gentleman says: "I lived there seven years, and there was always an abundant supply of water. We did not have a tank, and were supplied at all times with water for the steam-heating apparatus and ordinary household requirements and for the stable. For about two years the supply has been gradually diminishing, and now it is impossible to get water enough for use in the bathrooms and for cooking, etc." The present occupant of the house in question, also a well-known business man, has furnished us with the following information:

"On Monday, August 27th, the Fordham Hospital had to send men with buckets a distance of half a mile to a spring to fetch water for drinking. This had to be boiled and cooled before the patients could use it. All the surgical dressings and operations had to be postponed until evening, when a scant supply of water was obtainable through the pipes of the Bronx and Byram River supply system. The hospital is located on high ground east of the new Roman Catholic Orphan Asylum at Fordham Heights, and the entire neighborhood of residents on this elevation have been suffering from a water famine for some months. The consumption of water by the people of the borough, which is rapidly increasing, is now so far in excess of the supply that it brings down the depth of the water in the Williams Bridge reservoir to more than twelve feet below the normal level. In nearly all the houses this decrease of pressure means an entire absence of water during the working hours of the day." In these houses, the gentleman continues, food is cooked with water collected in tubs during the night.

This is an almost unbearable state of things, and, unfortunately, there is no prospect of immediate relief. The commissioner of water supply, it is only justice to say, is in nowise answerable for the deficiency; indeed, he long ago urged upon the municipal legislative body the provision of means for remedying it, but thus far he has succeeded only in obtaining authority and funds for constructing the foundations for a new high-service pumping station adjoining the site of the Jerome Park reservoir. In the meantime the inadequacy of the water supply is becoming more and more detrimental to the convenience, comfort, and health of the people from day to day. For the last two months it has been difficult to retain servants and impossible to have clothing washed at home, and in some conspicuous cases families have had to remain away from their homes on account of this lack of water. As a matter of course the resources for fighting fire are reduced to the minimum.

The King's Bridge property-owner from whose letter we quoted in our opening paragraph says he thoroughly believes that the lack of water is due to the use of an immense amount by the contractors who are building the reservoir at Jerome Park. No doubt a great deal of water is wasted in New York, as it is everywhere else; indeed, we are writing this article within hearing of a stream an inch thick that has been constantly issuing from a hydrant for about a month, and across the street the use of a hose for washing the sidewalk has several times been observed this summer, although every bill issued for water rates informs the householder that the use of a hose will not be allowed under any circumstances. But the waste is not exceptional now; it is always going on and must always be expected and allowed for. The need is for an increased supply and for better means of distributing it.

Commissioner Dalton long since planned to provide a large increase of the supply and greater height of delivery by building a high-service pumping station near the site of the Jerome Park reservoir and by drawing a supplementary supply from the Croton aqueduct by a four-foot main to be laid through the central and southerly sections of the borough of the Bronx and to be connected at as many points as necessary with the general system of distributing mains. The Board of Public Improvements, he says, promptly took favorable action on this plan, the Board of Estimate and Apportionment concurred, and so did one of the two branches of the Municipal Assembly, but the resolutions or ordinances for the authorization of the works and the necessary bond issues are still pending in the other branch of the Assembly. It will be seen, therefore, that one of the houses of our municipal legislature has assumed the grave responsibility of delaying measures for the correction of a condition that is highly detrimental to the health and happiness of the residents of several districts in the borough of the Bronx.

After all, however, the plight in which certain portions of the borough of the Bronx now find themselves is but the forerunner of a scarcity of water for the whole city before long, unless some radical measures are taken to increase the supply. The Merchants' Association has taken up the matter in a comprehensive way, and has recently issued a volume of reports, an analysis of which we shall soon lay before our readers.

THE HEDGE MUSTARD.

THIS common wayside weed, known also as wild mustard, bark-cress, and crambling rocket, learnedly set down by the botanists as *Sisymbrium officiale,* formerly official in several European pharmacopœias as erysimum, and still retained, along with *Sisymbrium alliaria,* in the *Codex medicamentarius,* having fallen into almost complete disuse, M. Brissemoret, at the request of M. Huchard, not long ago made it the subject of an article of a series on old drugs. M. Brissemoret's article appeared in the *Journal des praticiens* for May 30th. It seems that one of the plant's common French names is *herbe au chantre* (precentor's herb), the legend being that Racine was cured of hoarseness with it on the suggestion of a Notre-Dame precentor who had regained his own voice by using it. The hedge mustard was in high repute two hundred years ago, and maintained its vogue up to the beginning of the present century, as a remedy for laryngeal catarrh, says M. Brissemoret, and recently M. Harmary has drawn attention anew to its virtures in acute and chronic catarrh of the larynx. If what the last-mentioned writer says of it is borne out by further observations, it must be an invaluable resource for singers, for, according to him, hoarseness and even complete aphonia yield to it in one day, the clearness of the voice being perfectly restored.

We think M. Brissemoret is in error when he states that the constituents of the plant are unknown; certainly it is known that the root of *Sisymbrium alliaria* yields a volatile oil analogous to oil of mustard, and M. Brissemoret himself conjectures that the species of which he writes owes its virtues to a sulphurous essential oil contained in it, similar to that of horseradish, that of mustard, and that of scurvy-grass, but milder. In chronic affections of the air-passages he advises the use of the juice of the plant in daily amounts of from half an ounce to an ounce, or an infusion may be employed, made by macerating an ounce or two of the leaves in a quart of warm water for three quarters of an hour. Doubtless there are many medicinal plants that have lapsed into undeserved disuse, and whoever seeks to revive their esteem, as M. Brissemoret has done in this instance, promotes the progress of therapeutics, provided he deals in facts and not in fancies.

EARLY TROUBLE FROM AN IMPERFORATE HYMEN.

AN imperforate hymen usually gives no trouble, indeed, is not generally discovered, until the menstrual function has been established, but Dr. Rudolf Bunzel (*Prager medizinische Wochenschrift,* 1900, No. 30; *Deutsche Medizinal-Zeitung,* August 13th) records the case of a new-born child in which a collection of mucus formed in the vagina and caused the hymen to protrude in the form of a mass as large as a cherry. Operative intervention was not allowed, but perforation occurred spontaneously when the child was five days old. When the mucus had drained away, the hymen, though flaccid, still projected from the vulva.

THE PLAGUE IN GREAT BRITAIN.

A GREAT many families in Glasgow have had to be isolated to check the spread of the bubonic plague, and there have been reports of the appearance of the disease in London. At the time of our going to press, however, the news is that the British metropolis is free from it. The danger of its spread from Glasgow is sufficiently alarming, and it is to be hoped that the greater danger that would ensue upon its reaching London may be averted. The utmost vigilance is necessary at our own ports.

COMMENDABLE COOPERATION IN SANITATION BY A MILL SUPERINTENDENT.

IN the *New York Times* for August 30th there is an account of an outbreak of typhoid fever among the girls employed in a thread mill in Newark and Kearny, N. J., which was traced to the water of some driven wells from which the girls had drank freely. The superintendent at once ordered city water to be supplied to the mills and offered to stop their operation for a time if that would expedite the work. The people are rapidly learning the importance of sanitation.

PREGNANCY AFTER RUPTURE OF THE UTERUS.

IN the July number of the *Monatschrift für Geburtshülfe und Gynäkologie* Professor W. Stroganow reports a case of parturition in a woman who, in a previous confinement, had suffered a total rupture of the uterus. This had been repaired at the time of the accident by median laparotomy. In her second pregnancy, premature labor was brought on at eight months and a half by the introduction of a bougie, and a living child was safely extracted by version. Three weeks later an examination showed the scar of the former operation holding secure. The woman had a generally antracted pelvis. Professor Stroganow says that a rupture of the uterus operated on from above does not prevent subsequent conception and pregnancy, but such a patient, in her succeeding pregnancy, must keep herself near skillful aid; a lateral rupture prevents, by the density of its scar, the easy entrance of the fœtal head into the pelvis, so that it is desirable to prevent prolonged labor to avoid another rupture. This can be done by inducing labor or by proper operative measures at the time, preferably version by the combined method.

THE *MEDICAL NEWS.*

WITH the issue for September 1st Dr. Smith Ely Jelliffe began the work of editing the *Medical News,* succeeding Dr. J. Riddle Goffe, whose increasing professional engagements have no doubt induced him to retire from the journal. Dr. Jelliffe has had considerable editorial experience, and we are confident that he will conduct the *News* creditably. He holds the chair of pharmacognosy in the College of Pharmacy.

THE NEW MEDICAL DIRECTORY OF NEW YORK, NEW JERSEY, AND CONNECTICUT.

THE second year's issue of this new series, the volume for the year 1900, has been received at this office. The *Directory* is published in the form of a handsome book of 894 pages, by the New York State Medical Association, to whose publication committee, of which Dr. Frederick Holme Wiggin is the chairman, great credit is due. The book is an indispensable guide to the personnel of the profession, to medical societies, to hospitals, etc.

THE CULPABLE CARELESSNESS OF SMOKERS.

WE read of serious injury by burns inflicted on the wife of a New York physician through the carelessness of a smoker in a trolley car. A lighted cigarette, or perhaps a match, appears to have been carelessly dropped upon the floor of the car, and to have set fire to the lady's skirt, which apparently smouldered until she rose to leave, when it burst out into a blaze, burning her arms badly. The criminal carelessness with which many smokers toss away the burning ends of their cigars or cigarettes, or the matches, still blazing, with which they have lighted them, is astounding. Especially is this heedless practice reprehensible in summer, when women's dresses are so generally light, gauzy and inflammable. We once witnessed a catastrophe in the crowded grounds of a public exposition. In this case also a lady's summer dress caught fire from a burning match which some smoker had carelessly thrown down. The burns received resulted in her death. Since then, we have never passed a lighted match or a burning tobacco stump without stopping to crush it out with the foot. It is no real trouble to always extinguish with the foot any burning thing we throw away, and only utter heedlessness of the most selfish type would fail to do so, considering the danger to others which ensues from leaving burning material on the ground. But people rarely learn from any one's experience but their own. Will it need one victim for every smoker to create a careful habit in this matter? We would call the attention of the police authorities to this subject, and suggest a law making it punishable to commit this dangerous offence, as it is punishable to discharge firearms in a public thoroughfare. The fact that no harm was intended to any individual would not excuse the latter offence; neither should it the former.

ITEMS.

Infectious Diseases in New York.—We are indebted to the Sanitary Bureau of the Health Department for the following statement of cases and deaths reported for the two weeks ending September 1, 1900:

DISEASES.	Week end'g Aug. 25		Week end'g Sept. 1	
	Cases.	Deaths.	Cases.	Deaths.
Typhoid Fever	51	14	53	20
Scarlet Fever	51	3	42	4
Cerebro-spinal meningitis	0	7	0	6
Measles	37	5	39	5
Diphtheria	120	28	96	17
Laryngeal diptheria (croup)	6	4	3	1
Tuberculosis	189	115	142	134
Chicken-pox	1	0	1	0
Small-pox	0	1	0	0

Marine-Hospital Service Health Reports.—The following cases of small-pox, yellow fever, cholera, and plague were reported to the surgeon-general during the week ending August 31, 1900:

Small-pox—United States.

Cape Nome, Alaska	From beginning of outbr'k to Aug. 23	23 cases.	
Denver, Col	Aug. 11-15	3 "	
Garfield County, Col	Aug. 4	1 case.	
Las Animas County	Aug. 7	1 "	
New Orleans, La	Aug. 18-25	9 cases.	2 deaths.
New York, N. Y	Aug. 18-25		1 death.
Cleveland, Ohio	Aug. 18-25	4 "	
Dayton, Ohio	Aug. 18-25	1 case.	
Portsmouth, Ohio	Aug. 18-25	2 cases.	

Small-pox—Foreign.

Prague, Austria	July 28—Aug. 1	8 "	
Antwerp, Belgium	July 28—Aug. 4	2 "	
Cairo, Egypt	July 22-29	1 case.	
London, England	Aug. 4-11	5 cases.	
Lyons, France	July 28—Aug. 4		2 deaths.
Berlin, Germany	Aug. 10	3 "	
Gibraltar	Aug. 5-12	2 "	
Bombay, India	July 24-31	2 "	
Moscow, Russia	July 28—Aug. 4	2 "	2 "
Odessa, Russia	July 28—Aug. 11	108 "	29 "
Warsaw, Russia	July 28—Aug. 4		7 "

Yellow Fever.

Barranquilla, Colombia	Aug. 5-12		1 death.
Panama, Colombia	Aug. 13-20	4 cases.	
Port Limon, Costa Rica	Aug. 22	1 case on S. S. Cunard, from Colon.	
Havana, Cuba	Aug. 4-11		18 deaths.
Matanzas, Cuba	Aug. 26	1 case.	
Havre, France	Aug. 11	1 case S. S. Caravallas, from Lorenzo Marques, via Senegal.	
	Aug. 13	Several cases S. S. Santa Fe, from Lorenzo Marques, via Senegal.	
Merida, Mexico	July 3	7 cases.	4 deaths.
Tampico, Mexico	Aug. 16		1 death.

Cholera.

Bombay, India	July 22-31		379 deaths.
Madras, India	July 21-27		5 "

Plague.

Sydney, Australia	To July 28	302 "	102 "
Bombay, India	July 24-31		45 "
Scotland	Aug. 31	11 "	
Smyrna, Turkey	From outbreak to Aug. 6	22 "	11 "

Naval Intelligence.—*Official List of Changes in the Medical Corps of the United States Navy for the Week ending September 1, 1900:*

BENTON, F. L., Assistant Surgeon. Detached from the Naval Hospital, Cavite, Philippine Islands, and ordered to the Naval Hospital, Yokohama, Japan, for duty.

CRAWFORD, C. A., Assistant Surgeon. Detached from the *Chesapeake* and ordered to the *Eagle*.

MCCORMICK, A. M. D., Passed Assistant Surgeon. Detached from the *Chicago* and ordered to the *Montgomery*.

PIGOTT, M. R., Passed Assistant Surgeon. Ordered to the Naval Academy immediately.

RIXEY, P. M., Medical Inspector. Commissioned medical inspector from August 24, 1900.

SMITH, G. T., Surgeon. Commissioned surgeon from August 24, 1900.

SPRATLING, L. W., Passed Assistant Surgeon. Detached from the Naval Hospital, Yokohama, Japan, and ordered to report to the commander-in-chief of the Asiatic Station for such duty as may be assigned.

WHITING, J. R., Assistant Surgeon. Detached from the *Montgomery* and ordered to the *Chicago*.

Army Intelligence.—*Official List of Changes in the Stations and Duties of Officers serving in the Medical Department, United States Army, from August 25 to September 1, 1900:*

DE WITT, CALVIN, Lieutenant-Colonel and Deputy Surgeon-General, United States Army, upon the expiration of his leave of absence, will proceed to St. Paul for duty as chief surgeon of that department, to relieve WRIGHT, JOSEPH P., Colonel and Assistant Surgeon-General, United States Army.

POPE, BENJAMIN F., Lieutenant-Colonel and Deputy Surgeon-General, United States Army, is assigned to permanent station at the Presidio of San Francisco.

SHAW, HENRY A., Captain and Assistant Surgeon, United States Army, upon his relief from duty at the Presidio of San Francisco, will report to the commanding general, Department of California, for transportation to Manila.

WILLIAMSON, LLEWELLYN P., First Lieutenant and Assistant Surgeon, United States Army, will report to the commanding officer of the third battalion, Eighth Infantry, for duty with that battalion.

Usher, Francis M. C., First Lieutenant and Assistant Surgeon, will report to the commanding officer, third battalion, Fifth Infantry, at the Presidio of San Francisco, for duty with that battalion.

A Medical Reunion in Detroit.—On Wednesday several medical organizations held a reunion in Detroit. An address was delivered by Dr. Lewis S. McMurtry, of Louisville.

Buffalo Academy of Medicine.—At the last regular meeting of the Section in Surgery, on Tuesday evening, the 4th inst., the following papers were presented for discussion: Angeioma, by Dr. Vertner Kenerson; and the Resection of Joints, with a Report of Cases, by Dr. Herman Mynter.

Dr. George P. Dreyer Goes to Chicago.—Dr. George P. Dreyer, of Johns Hopkins University, has been appointed professor in charge of the physiological department of the College of Physicians and Surgeons, the medical branch of the University of Illinois, at Chicago. Dr. Dreyer has been associate professor of physiology at the Johns Hopkins for the past ten years. He received his bachelor of arts degree in 1887 and from 1889 to 1890 was fellow in biology, taking the degree of doctor of philosophy in 1890.

Small-pox.—Dr. Parsons, of the Manchester, Mass., board of health estimates the cost of fighting the recent epidemic of small-pox in that town as $5,000, all of which might have been saved had the first case been properly reported.—A case of small-pox is reported at St. Joseph, Mo., in the family of the janitor of a public school.—Seven cases have been reported in Erie, Pa.—Sixty cases have been reported from the vicinity of Logan, Utah, and the community is panic-stricken.—Many scattered cases have been reported in the northern part of Mississippi, and the Memphis, Tenn., health authorities are taking special precautions to prevent the introduction of the disease into that city.—Small-pox is reported as being epidemic in McGuffey, O.—Four new cases of small-pox were reported in Cleveland during the week ending August 25th.—A "contagious eruptive disease" is epidemic in New Bedford, which the newspapers say is nothing else but small-pox, though it has not been officially recognized as such by the local board of health.

The March of Typhoid.—Eleven cases of typhoid fever existed at Indian Creek, Pa., on August 16th. Seven of the cases were sent to hospitals in Pittsburg.—Many of the workmen of the Interstate Telephone Company occupied in constructing a new line between Norristown and Morrisville had, according to the *Philadelphia Inquirer* for August 22d, been attacked by typhoid, and five of them had been sent to the Charity Hospital at Norristown.—Watertown, N. Y., was also afflicted with typhoid in the week ending August 18th, six deaths having occurred during the preceding fortnight.—In Pittsburg 372 cases of typhoid had been reported August 23d as against 179 for the corresponding period last year. There was a disposition, however, to question the diagnosis in many of them. The mortality is low. It is estimated that 500 cases will be reported during the month.—Seven cases of typhoid fever were recently reported in the Orange Memorial Hospital, but all are now either convalescent or entirely well.—Several cases of typhoid have appeared in Worcester, Mass., all being in the same family.—In Cincinnati the number of new cases of typhoid fever reported is rather less than earlier in the summer.—Typhoid is reported as being epidemic at Treverton, Pa., and Chester, Pa.—There has been an unusually large amount of typhoid fever in Paris this summer. According to the *New York Herald* it is so prevalent as to be almost epidemic. The official statistics of the sanitary department show that there were recorded from the beginning of the year to August 13th 3,148 cases, of which 568 resulted fatally. This is a considerable increase over the records of previous years. Paris is never free from this disease, but until 1898 the number of cases for the corresponding period did not exceed 700. Moreover, the figures for the last few weeks of the present year show a perceptible increase over those of the earlier period.—An investigation as to the cause of a number of cases of typhoid fever which have appeared recently in Newark, N. J., showed that the majority of the cases had occurred among employees of the Clark thread mills, all of whom drank water from driven wells on the grounds of the company. An examination showed that the water from one of these wells contained a very large number of bacilli. Water from the city was run in to replace the well water.—A statistical review of the history of typhoid fever in McKeesport, Pa., for the past eight years up to August 27th shows that the present epidemic is not nearly so serious in proportion to the increased population as was that of 1895. In fact the death rate compares favorably with that of 1899 and 1898, there having been 14 deaths from typhoid in 1899 and 15 in 1898, while for the eight months ending August 28th only 9 deaths had been reported as due to typhoid.—From 8 to 14 new cases of typhoid have been reported daily for some time past in Pittsburg and considerable alarm is felt over the situation. The local newspapers are taking advantage of the occasion by trying to impress upon the community the need for an adequate filtration system for the city water supply.—Typhoid fever has become epidemic in Winnipeg, Manitoba, and is prevalent in other portions of the province as well.—The Michigan Board of Health report for the last week of August showed the existence of typhoid fever at 90 different places in the State.

City and State Health Officials Cooperate.—Growing out of reports of nuisances threatening the public health of the city of Philadelphia, sent by Chief J. Lewis Good, of the Bureau of Health, to Dr. Benjamin Lee, secretary of the Pennsylvania board, power will be given to a deputy medical inspector of the city to act as a State official. At present a representative of the Bureau of Health has no authority to act outside the city limits.

Hospital Appointments.—Dr. Julius E. Haight, of Matteawan, has been appointed medical interne at the State Hospital for the Insane, Utica, N. Y.—Dr. H. M. Sullivan, of Newport, R. I., a graduate of Harvard Medical School, has been placed on the staff of the Carney Hospital, Boston.—Dr. Joseph H. Broadbent, Jr., of Roxbury, Mass., has been appointed pathologist to the Roosevelt Hospital, New York City, for a term of six months.

The Plague in Glasgow.—In last November a number of officers of the U. S. Marine-Hospital Service were ordered abroad and distributed among the more important foreign seaports, with instructions to keep a special watch upon suspected cases of bubonic plague. One of these officials, Surgeon A. R. Thomas, reported to the surgeon-general of the Marine-Hospital Service on August 31st that the Glasgow Board of Health had officially declared that city to be infected with the plague. On that date eleven well-defined cases were in the hospital, while one suspected case was under observation. Special inspections have been ordered of all Glasgow steamers by the health authorities at Southampton and Liverpool, and it is feared that Spain will declare a quarantine against the infected port. This would be a serious blow to the Scotch iron industries, as much Spanish ore passes into Scotland through Glasgow. Denmark has already declared a quarantine against Glasgow.

New Hospitals and Hospital Buildings.—At the last session of Congress the sum of $100,000 was appropriated for the purchase of a site for a city hospital in Washington. It seems that there is as yet no municipal hospital in that city, all charity patients being cared for at some of the several private hospitals, but of course at the expense of the city, the amount paid out annually for such cases being about $75,000. Tenders of sites have been asked for and a number of plots have been offered, mostly at what are considered as being exorbitant valuations.—A number of minor changes and improvements have recently been made in the State Hospital at Buffalo, N. Y., including the erection of a new laundry building. The managers have asked the State to erect a new chapel and amusement hall, the present edifice being totally inadequate for the proper accommodation of the patients.—Sealed proposals will be received at room 31, Wheeler Building, Columbus, O., up to 12 o'clock, noon, September 25, 1900, for furnishing the materials and performing the labor necessary to erect and complete an administration building, a hospital building and a cottage for the Ohio Hospital for Epileptics, at Gallipolis, Ohio, according to the plans and specifications of J. W. Yost, architect.

Michigan Physicians "Strike."—According to press dispatches the physicians of Ludington, Mich., have entered into an agreement that no one will accept a smaller salary than $600 per annum to act as health officer. The common council of the town have fixed the salary at $300 a year, and as a consequence the town is without any health officer.

Change of Address.—Dr. Frederick C. Holden, to No. 63 Seventh Avenue, Brooklyn.

Society for Psychical Research Founded in Colorado.—A society for psychical research has been founded at Denver. The objects of the society as outlined in the constitution embrace, first, study of the possible reformation of criminals along the line of psychology, instead of the present system of penal servitude; second, applied psychology in extending the scope of influence in the treatment of chronic diseases, commonly looked upon as incurable; third, general investigation into all occult phenomena, embracing trance, catalepsy, somnambulism, hibernation, telepathy, clairvoyance and spiritualism.

The Anti-arsenic Law in Massachusetts.—The new anti-arsenic law which goes into effect in Massachusetts on January 1, 1901, is arousing much criticism among the Massachusetts manufacturers, many of whom claim that the statute is nonsensical and uncalled for. The law imposes heavy penalties for the sale or possession of fabrics or paper containing more than 1-100th grain of arsenic to the square yard of dress goods or 1-10th grain of any other article.

Yellow Fever in Cuba.—Yellow fever is said to be epidemic in Havana, but though the epidemic is serious it is stated to be confined to the Spanish quarter. The best quarters of the city are the affected ones, the lower quarters so far being exempt. There were eighty-five cases under inspection on September 3d.

Society Meetings for the Coming Week:

MONDAY, *September 10th:* New York Academy of Medicine (Section in General Surgery); New York Academy of Sciences (Section in Chemistry and Technology); New York Medico-historical Society (private); New York Ophthalmological Society (private); Gynæcological Society of Boston; Burlington, Vermont, Medical and Surgical Club; Norwalk, Connecticut, Medical Society (private).

TUESDAY, *September 11th:* New York Academy of Medicine (Section in Genito-urinary Surgery); New York Medical Union (private); Buffalo Academy of Medicine (Section in Medicine); Rome, New York, Medical Society; Medical Society of the County of Rensselaer, New York; Newark (private) and Trenton, New Jersey, Medical Associations; Clinical Society of the Elizabeth, New Jersey, General Hospital and Dispensary; Northwestern Medical Society of Philadelphia; Practitioners' Club, Richmond, Kentucky; Richmond, Virginia, Academy of Medicine and Surgery.

WEDNESDAY, *September 12th:* New York Pathological Society; American Microscopical Society of the City of New York; Society of the Alumni of the City (Charity) Hospital; Philadelphia County Medical Society.

THURSDAY, *September 13th:* Society of Medical Jurisprudence and State Medicine, New York; Brooklyn Pathological Society; Medical Society of the County of Cayuga, New York; South Boston, Massachusetts, Medical Club (private); Pathological Society of Philadelphia.

FRIDAY, *September 14th:* Yorkville Medical Association, New York (private); German Medical Society of Brooklyn; Medical Society of the Town of Saugerties, New York.

Births, Marriages, and Deaths.

Married.

ALDRICH—PERKINS.—In Norwich, Connecticut, on Wednesday, August 29th, Dr. John Aldrich and Miss Mary Elizabeth Perkins.

KETCHUM—JOHNSON.—In Washington, on Wednesday, August 23d, Dr. Frank B. Ketchum and Miss Mabel C. Johnson.

MAYER—HYATT.—In Annisquam, Massachusetts, on Monday, August 27th, Dr. Alfred G. Mayer and Miss Harriet Randolph Hyatt.

VICTOR—ADAMS.—In New Orleans, on Thursday, August 23d, Dr. Allen H. Victor and Miss Ethel Scott Adams.

YOUNG—SIMONTON.—In Rockland, Maine, on Monday, September 3d, Dr. Ernest B. Young, of Boston, and Miss Grace Adams Simonton.

Died.

BRECKENRIDGE.—In Stanford, New York, on Tuesday, August 28th, Dr. J. S. Breckenridge, formerly of Brooklyn, in the sixtieth year of his age.

CHATARD.—In Atlantic City, New Jersey, on Monday, August 27th, Dr. Ferdinand E. Chatard, of Baltimore, in the sixty-first year of his age.

Detweiler.—In Reading, Pennsylvania, on Wednesday, August 29th, Dr. Isaac Detweiler, in the seventieth year of his age.

McCandless.—In Alliance, Ohio, on Monday, August 27th, Dr. Samuel T. McCandless, in the sixty-second year of his age.

Mennie.—In Toronto, Canada, on Friday, August 24th, Dr. J. G. Mennie, in the forty-seventh year of his age.

Milbury.—In Brooklyn, on Wednesday, August 29th, Dr. Frank Stephen Milbury, in the forty-fourth year of his age.

Smith.—In Frederick, Maryland, on Sunday, August 26th, Dr. Francis Fenwick Smith, in the seventy-second year of his age.

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Pith of Current Literature.

Albany Medical Annals, August, 1900.

Surgical Operations in Hospitals for the Insane. By Dr. William Mabon.—This paper does not profess to present new theories regarding the treatment of insanity, but calls attention to the abundant opportunities for surgical work afforded by our hospitals for the insane in cases in which it will promote the comfort and well being of the patients. The author does not refer specially to brain surgery, in which the field is limited; but rather to any surgical intervention which may add to the comfort of insane patients whether it holds out much hope for their mental relief or not. Several cases are recorded in some of which, operations performed on purely general principles had a direct and unexpected result on the brain condition.

Diagnosis and Treatment of Fractures of the Hip Joint. By Dr. Douglas C. Moriarta.—The author points out the favorable field such cases present for accusation of malpractice and attempts to claim damages, and says that it has been a rule with him for several years to make his prognosis in the presence of some reliable individual in all cases of fractures. It is also a rule with him, from which he has not deviated during the past ten years, not to put up a fracture permanently alone under any circumstances. The author discusses the diagnosis between fractures and dislocations, and in conclusion suggests:

1. Protect yourself in the prognosis and treatment with a reliable consultant. 2. Do not persist in demonstrating crepitus. 3. Do not expect or try, under adverse conditions, to obtain perfect results in elderly people, but accept the best results consistent with saving the patient's life.

Post-graduate Instruction in Therapeutics. By Dr. Reynold Webb Wilcox.—The author divides post-graduate students into three classes: 1. Men now holding positions in the smaller schools; 2. recent graduates; 3. practitioners of several years' standing. The motives governing each of these classes and their requirements are obviously different. The author considers that success in teaching graduates depends upon : 1. demonstration and demonstration repeated, until effect is indissolubly united to cause, and coincidence absolutely excluded; 2. those methods which have practical bearing must be selected and their scope and limitations demonstrated. Fads and bizarre notions have no place in scientific therapeutics. Facts, not faith, appeal to the true scientist. If resurrected methods are mentioned and occasionally demonstrated, it is to show their inferiority, uselessness, or danger, that the graduate shall not be deluded into the belief that he has something wonderful or new; 3. a healthy optimism, which is far removed from an easy credulity on the part of the teacher, aids greatly in inculcating sound treatment.

The Medical Complications of Gonorrhœa. By Dr. Samuel B. Ward.—Besides the genito-urinary organs in the male and the female, the eye, anus, rectum, and mouth, occasionally become affected with the poison. The nose is very rarely affected, and parotitis and mastitis are rare. The gonococcus may gain admission to the blood current and so may reach nearly every organ of the body, giving rise to local inflammation, and even to general septicæmic infection as shown by Thayer and Blumer in 1895. Pleurisy, pneumonia, endocarditis, pericarditis are named among diseases that have been found to be at times due to gonorrhœa.

Opacities of the Vitreous. By Dr. William B. Sabin.

Dublin Journal of Medical Science, August, 1900.

Notes on a Year's Work at Farnham House Asylum. By W. R. Dawson, M. D., F. R. C. P. I.—1. The author records three cases of climactoric insanity in one of which there was no depressed stage, and the short duration of the attack was very remarkable considering the lengthened preliminary stage. 2. A case is quoted to show the superiority of asylum treatment over hospital treatment, in even mild insanity. 3. A case is reported bearing out Dr. Clouston's opinion that no hereditary tendency is required for the development of post febrile insanity. 4. A case of general paralysis is reported in which there was blood in the urine, of undetermined source. 5. A case of chronic nephritis accompanied by morose, fanciful and timorous, mental characters differing from the condition of maniacal delirium, which is supposed to be characteristic of the mental condition in chronic nephritis, is given. 6. A case of membranous colitis showed marked improvement consequent on the administration of regular large doses of sodium bicarbonate by the mouth at the suggestion of the patient, himself a medical man. 7. Attention having been lately directed (The Rôle of the Blood-Supply in Mental Pleasure and Pain. By W. R. Dawson, M. D., *Dublin Journal of Medical Science,* February) to the connection, on the one hand, between mental discomfort and high arterial pressure, and on the other between low arterial pressure and mental exaltation, an attempt was made in several cases to influence the mental state through the blood-pressure. Thus in a case of excited melancholia, with high pulse tension, erythrol tetranitrate was tried, but without good effect, and possibly the doses were not large enough. Some advantage, at least to the general state, however, appeared to be gained from its administration in the case of chronic nephritis above mentioned, but in a case of senile dementia, wakeful and restless—conditions in which its use has been recommended—no good result was obtained. Here, however, there was cardiac valvular disease. Thinking that the converse effect—*i. e.,* rise of blood-pressure—might be useful in maniacal conditions, it was resolved to try the effect of administering suprarenal gland substance, which is known to be very energetic in raising arterial tension; and although it has only been used as yet in a single case—one of adolescent mania—the results are so far encouraging; but as the treatment was only commenced on March 22d the results cannot properly be given now.

Pemphigus with Erythema Circinatum. By Henry C. Drury, M. D., F. R. C. P. I.

Remarks on Dupuytren's Contraction of the Palmar Fascia. By John Knott, M. A., M. D.—A very interesting article, not condensable, which should be read in its entirety by those specially interested in the subject.

The Nose, Cold Feet, "Tobacco Heart," and Convallaria Majalis. By H. S. Purdon, M. D.—The two symptoms connected with the weakened heart and "soft" pulse of tobacco excess, viz.: a congested or dusky red color of the skin of the nose, general cold to the touch, and also, especially in winter, cold feet—conditions due to feeble circulation—the author finds much benefited by the use of the fluid extract of convallaria majalis, which has not the cumulative action of digitalis.

American Journal of Obstetrics, August, 1900.

The Pathology of Tubal Pregnancy: A Summary of the Study of Forty Cases. By Dr. Maximilian Herzog.

Suturing the Round Ligaments to the Vaginal Wall. By Dr. Hiram N. Vineberg.

Retrodislocation of the Uterus. By Dr. R. S. Hill.

The Remote Results of Conservative Operations on the Ovaries and Tubes. Eighty-five Cases. By Dr. W. L. Burrage.—In all cases where the ovaries and tubes are only partially involved, conservative operations are advisable, in the opinion of the author. This observation does not apply, however, at the time of the menopause, nor to rare cases of malignant disease, or in cases of pronounced gonorrhœa of long standing. In these latter cases complete removal is advisable; but, however, if the patient wishes to take the chances in the hope of preserving the function of menstruation, conservative operation is permissible.

If one tube is patent and healthy in appearance, and there is enough healthy ovarian tissue to preserve, a conservative operation ought to be performed even in the presence of gonorrhœa. If both tubes are found closed at the time of operation subsequent pregnancy is not to be expected.

If the appendages are greatly inflamed, the prospect of subsequent pregnancy after the removal of a portion of ovary is about 23½ per cent.; provided, however, that the ostium abdominale of one tube is patent. In women who have borne children, the percentage is 35 per cent.; in women previously sterile, 5 per cent. If both ovaries are removed, it is of no advantage to preserve any portion of the tubal tissue.

Epithelioma of the Vulva. Two Cases. By Dr. Charles P. Noble.

Hernia in Children. By Dr. Edward A. Balloch.—This condition is not infrequent in children. In the umbilical form, operation is seldom necessary to effect a cure; always necessary in the femoral, and in about 70 or 80 per cent. of the cases in the inguinal form. After a truss has been worn for two years in children, without benefit, it is proper to recommend a radical operation to effect a cure. The mortality from operation is less than that which results from accidents attending the presence of hernia.

A Superior Occipital Hydrencephalocele Successfully Operated Upon. By Dr. A. Palmer Dudley.

Placenta Prævia. By Dr. U. S. Bird.

Archives of Pædiatrics, August, 1900.

Three Cases of Head-nodding, and Head-rotation in Rachitic Infants. By Dr. D. J. Milton Miller.

Naso-pharyngeal Disease in Pædiatric Practice. By Dr. Francis Huber.—This article, which is well written, contains much that will be of use to the general practitioner. Many pathological changes may be avoided by the early removal of the lymphoid hypertrophies in the naso- and oro-pharynx, with the cure of the associated naso-pharyngeal catarrh, restoring the potency and permeability of the nose. The general health will be more or less improved, as also the mental faculties and general intelligence. Defects in speech and hearing of nasal origin will disappear and deafmutism may be relieved. Reflex neuroses of various kinds will be modified or cured. Nasal and supposed pulmonary hæmorrhages will disappear. Thoracic deformities will be relieved or cured. The functions of taste and smell will be restored. The tendency to acute rhinitis, pharyngitis, laryngitis, bronchitis and pneumonia will be lessened.

The dangers from enlarged cervical lymph nodes will be avoided. The invasion of various infectious diseases is less likely with a healthy nasal mucous membrane. The danger of meningeal infection from the naso-pharynx will be lessened. Ear complications, in general, will be avoided or rendered less dangerous.

Perforation of a Tuberculous Bronchial Lymph Node into the Trachea. Sudden Death. By Dr. A. Caillé.

Intussusception in an Infant Four Months Old, Relieved by Injection. By Dr. Alfred Hand.

Medical Record, September 1, 1900.

The Relative Bearing of the Conjoined Tendon and the Internal Oblique Muscle upon the Radical Cure of Inguinal Hernia. By Dr. Joseph A. Blake.

The Significance of the Bacillus Coli Communis in Drinking-water. By Dr. J. H. Linsley and Dr. B. H. Stone, A. B.—Starting with the statement that, at present, the efforts of the bacteriologist are centred on a determination of the *kind* of germs present, rather than the *number*, the author proceeds to differentiate between the *Bacillus coli communis* and the typhoid bacillus. He regrets that, unfortunately, there are in water and in excretions sometimes a number of bacilli which apparently lie between these two groups, and says that the present classification is, at best, an artificial one. Granting, however, that the typhoid and the colon bacilli are entirely distinct varieties, the presence of the *Bacillus coli* forms a test ten times more delicate than any chemical test for the presence of sewage. As a test therefore it is invaluable. As to its pathogenicity much too little significance is attached to it. In the opinion of the authors it may be, and often is, the ætiological factor in many diseases, as cystitis, nephritis, pyonephrosis, meningitis, abscess, sepsis, pyæmia, and septicæmia. In fact it is one of the most obstinate pus producers that we know, and is usually the infective agent in appendicular inflammation and peritonitis. Several illustrative examples are given, and a table showing the comparative reactions of *Bacillus typhosus, Bacillus coli communis,* and the germ found in milk and well-water is exhibited.

From a consideration of the facts presented, the authors conclude that waters in which the *Bacillus coli communis* is found to exist for any length of time are dangerous to the public health and should be condemned.

Pathological Physiology or Experimental Pathology, its Scope and Significance in Medicine. By Dr. Isaac Levin.—This really excellent article can best be summed up in the author's own words: "Pathological physiology has its own problems and uses its own line of experimentation to solve them. It is closely united with the other branches of medicine and may be considered a connecting link between normal physiology, pathological anatomy, bacteriology, and pathological chemistry on the one hand, and the clinic and hygiene on the other. It is indispensable not only for progress in the treatment of disease, but also for the art of preventing diseases. Prevention of epidemics, immunization, hygiene of food, and innumerable other subjects could not have been properly developed without pathological physiology."

The Discovery of "Ureine," the Principal Organic Constituent of Urine and the True Cause of Uræmia. By William Ovid Moor.—This organic liquid which forms the "Most characteristic component part of urine," is obtained by evaporating the urine at a temperature of 50° C. and treating the remainder of the liquid with a strong solution of silver nitrate, then cooling the liquid and filtering it. The "Ureine" is of a yellow color, slightly bitter taste, fatty "feel," and has a specific gravity of 1.270, or about that of glycerin; is miscible in all proportions with water and alcohol, barely soluble in ether, and very slightly alkaline in reaction. It was to be expected *a priori* that the principal organic constituent of urine should be the true cause of uræmia, and a few experiments on rabbits, so far, have fully demonstrated the truth of this *a priori* conclusion. This "Ureine" is the principal cause of the ammoniacal fermentation of urine, as without its presence urea cannot be decomposed into ammonia and carbon dioxide.

Journal of the American Medical Association, September 1, 1900.

Traumatisms and Malformations of the Female Genital Apparatus and their Relation to Insanity. By Dr. George Henry Noble.—In answer to the question, "Do you regard malformations and traumatisms of the female genital apparatus as causes of insanity?" the author has received replies from a number of superintendents of asylums for the insane and from some of the most prominent gynæcologists. The great majority answered in the affirmative. He finds that palpable external deformities are more frequently associated with insanity than deformities of the internal genitalia. Obstetric lacerations and simple displacements of the uterus are very potent factors for evil. Uterus bicornis, uterus didelphys, uterus duplex, etc., have never been associated with mental derangement in the experience of the author, yet Dr. Clarke, of Cambridge, mentions them in his answer. In the author's practice all patients the subjects of defective development, such as prohibited intercourse, became insane with but one exception. The article is replete with cases, and finally concludes with the pertinent query: "We know that cure of disease of the female genital organs is a most valuable and essential aid in the treatment of many nervous diseases in the sane woman. Why, therefore, have we the right to deny the insane woman the privilege her more fortunate sister receives?"

The Causal Relation Intra-abdominal Diseases Bear to Nervous Disturbances Recognized by Gynæcologists, Ignored by Neurologists. By Dr. Henry O. Marcy.

Autointoxication from Defective Menstruation. By Dr. Arthur W. Johnstone.—"One of the principal purposes of menstruation is ridding the blood of the unused fœtal food." This—the opening sentence of the paper—is the keynote of the whole article which strenuously insists on the fact that the child-bearing woman always carries a superabundance of food which, if not properly handled, becomes a violent poison in some cases.

Tubo-ovarian Adhesions. Their Reflexes. By Dr. A. L. Beahan.

Gall-stones and Diseases of the Gall-bladder and Nervous Symptoms Resulting therefrom. By Dr. Edwin Ricketts.

Pelvic and Nervous Diseases. The Third Element in the Equation between Pelvic and Abdominal Disease in Women and Disturbance in the Nervous System. By Dr. H. A. Tomlinson.

Pelvic Disease as a Factor of Cause in Insanity of Females and Surgery as Factor of Cure. By Dr. Eugene G. Carpenter, A. M.

The Relation of Surgery to Diabetes. By Dr. C. P. Gildersleeve.—A consideration of the subject of diabetic gangrene. The possibilities which may follow operative intervention in a diabetic subject should always be pointed out to the patient beforehand. An operation for any of the simple affections should never be performed on an elderly diabetic, unless for some special reason. In the painful, rapidly spreading gangrene, the author believes in prompt and high amputation. As a rule, he waits until a line of demarcation forms.

Fracture of the Superior Maxilla in a Man Seventy Years Old, with Recovery. By Vida A. Latham, M. D., D. D. S., F. R. M. S.

The Physiologic Training of the Feeble-minded. By Samuel J. Fort.

Keratolysis or "Skin-shedding." By Dr. R. M. Stone.—Report of a case.

Imperfect Development. By Dr. George F. Keiper. —This is a report of a case of lack of development of the right side of the head with congenital microphthalmus, coloboma iridis, lack of external auditory canal and imperfect formation of auricle.

Philadelphia Medical Journal, September 1, 1900.

The Master of Medicine as the Teacher of Medicine. By Dr. Bayard Holmes.—While there are some remarkable examples of good teaching in almost every branch of our medical curriculum, and while the past records many celebrated and original lectures, Dr. Holmes states that, at present, the teacher as a factor in medical education is apt to be forgotten. "No effective check," as he says, "is placed on poor teaching, no preferment comes to the good teacher, and no search is made by the university for scholars." He complains that when the senior professor has the choice of an adjunct professor he chooses a harmless and forceless man because such a one can never become a rival.

Extramural teaching, as commended by Professor Osler, has not been tried to any extent here, and it certainly should be considered. It would put many men as well as many hospitals, on trial, and would, no doubt, discover, if not develop, a lot of good medical teachers. Every man in the medical faculty should not only demonstrate his mastery of his science by contributing to its advancement before he earned his position, but he should hold his position by continued contributions, and by his ability to lead and inspire students to similar original work.

The Teaching of Physiology. By Dr. William Townsend Porter.

On the Teaching of Pharmacology, Materia Medica, and Therapeutics in Our Medical Schools. By Dr. John J. Abel.

The Unit System of Laboratory Construction. By Charles S. Minot, M. D., LL. D.—The suggestion of a unit system is made only in general terms, leaving open for further consideration the exact size of the unit spaces, and the exact size and shape of the unit rooms. This unit will, of course, vary with the standards and resources of each medical school. Aside from these details, however, the adoption of the unit system is well calculated to diminish the difficulties of both the planning and maintenance of laboratories for medical instruction and research.

Methods of Teaching Gynæcology. By Dr. Howard A. Kelly.

The Method of Teaching Physiological Chemistry. By R. T. Chittenden, Ph. D.

Teaching Obstetrics. By Dr. J. Whitridge Williams.

On the Teaching of Pathology. By Dr. J. G. Adami, M. A.

Methods of Teaching Hygiene. By Dr. Victor C. Vaughan.

The Teaching of Anatomy. By William Keiller, F. R. C. S. Ed.

On the Practical Clinical Teaching of State Medicine. By Dr. Wyatt Johnston.

Comparative Pathology: Its Relation to Biology and Medicine. By Dr. Theobald Smith.

On the Ætiology of Tropical Dysentery. By Dr. Simon Flexner.

Boston Medical and Surgical Journal, August 30, 1900.

The Surgeon in the Nineteenth Century. An Address Delivered at the Annual Meeting of the British Medical Association, August, 1900. By Frederick Treves, F. R. C. S.

Results of the Operative Treatment of Cancer of the Breast. By Dr. Homer Gage.—From the reports of his own operations and those of others, the author believes that we may not only offer a long immunity by the complete removal of the cancerous breast, but may also hold out a strong hope that the immunity will be permanent. The facts that the mortality has been reduced from sixty-seven per cent. to less than twenty per cent., and that the number of those who pass the three-year limit has been increased from ten or fifteen per cent. to more than forty per cent., would seem to justify the operation. Only the most thorough and extensive operation should be performed. When the growth is discovered early, and when the external manifestations are limited to the breast, even better results may be expected.

The Injurious Effects of Improperly Constructed School Chairs. By Dr. J. Stone.—The choice of the "Oblique" or of the "Vertical" script in handwriting eems to have much to do with the incorrect posture in writing. The ordinary type of lateral curvature is that of the writing position. When the oblique penmanship s practised, the head turns so that the eyes may follow he line of writing, the centre of gravity is altered, the eft arm slips from the desk and is lowered, while the ight is pushed forward and upward on to the desk. The ertical style of writing does not seem to possess this unesirable tendency to distort the spine. Aside from the method of writing, certain well-defined principles should e observed in the building of the school desk. The eight of the seat should equal the knee height, the width f the seat should be slightly greater than the width cross the buttocks, the depth of the seat should be about wo-thirds the length of the thigh, the difference between he height of the desk and the height of the seat should orrespond to the height of the elbows above the tuberosies when the arm is very slightly raised, as in writing. A properly constructed desk should conform to these reuirements. The slant of the desk itself, and of the hair back, are other factors to be considered. These uestions are of the utmost importance, in the opinion of the author, as only those children who are unquestionably strong can withstand the effects of improperly constructed desks.

A Case of Parovarian Cyst with Twist of the Pedicle Occurring during the Fourth Month of Pregnancy; Operation; Recovery; Normal Delivery at Term. By Dr. F. B. Lund.

Medical News, September 1, 1900.

Improved Technic for the Cure of Ventral Hernia. By Dr. M. M. Johnson.—An elliptical incision is made a little within the opening in the abdominal wall, carefully avoiding the loop of the intestine that frequently adheres to the inner surface of the hernial sac. The skin and superficial fascia are dissected back, exposing the sheath of the rectus muscle. A similar dissection is made on the outer side, an inch or more over the external oblique. The edges of the opening are trimmed and a No. 25 silver-wire suture is inserted at the upper angle of the opening by lifting the abdominal wall and passing the needle through the perinæum, rectus muscle, and skin, about one inch from the free border of the opening. The needle on the other end of the wire is similarly passed through the abdominal wall on the opposite side. Silver-wire sutures are inserted at intervals of one inch throughout the entire length of the incision. All the subcutaneous tissues are then united by a continuous kangaroo-tendon suture, and the skin is closed by a continuous suture of the same material. The deep wire sutures are now taken up one by one, moving them backward and forward to make sure that a loop of gut is not included between the wire and the abdominal wall. The ends of the wire are wound around a piece of ivory on either side and drawn sufficiently tight to relieve the tension on the kangaroo-tendon stitches. This is the old and nearly obsolete "quill suture" used for a new purpose. Half the wires are removed in ten days, and the remainder in fifteen days. When the hernia is in the median line the principle is the same. The object is to relieve the tension on the stitches which hold the muscular tissues together until firm union has taken place. Two cases follow.

Differential Diagnosis of Chronic Rheumatism. By Dr. James J. Walsh, Ph. D.—An interesting article, written to show that there are a number of chronic painful conditions, sometimes mistaken for chronic rheumatism, that should be carefully distinguished if patients are to be more than temporarily benefited; also, that there is in genuine chronic rheumatism a group of affections the distinguishing of which from one another will serve as a suggestive text for many an advance in diagnostic methods in the century that is just opening.

The Essential Conditions for Habitation to Develop and Maintain Healthful Family Existence. By Dr. Rosa Engelmann.

Gastroptosis, with Special Reference to a New Mechanical Support. By Dr. H. W. Lincoln.

The Advances in Medicine. By Dr. Martin M. Kittell.

Deutsche Medizinal-Zeitung, August 13, 1900.

Medico-legal Aspect of Death from Burns.—Dr. Lipkau says that sudden death following burns is due to paralysis of the vital centres. If it occurs within twenty-four to forty-eight hours it is due to an overwhelming of the system by toxines which produce a change in the blood leading to embolism and thrombosis. The diagnosis of death from burns cannot be made solely from the external appearances but must be reinforced by a careful examination of the intestinal organs. He explains the duodenal ulcer accompanying extensive burns of the skin by capillary thrombosis in the duodenum which leads to necrosis of the epithelium of the neighborhood and, under the influence of the irritating gastric and pancreatic juices and, possibly, the bile, to loss of substance. Blisters which are not filled with serum arise during life. The bright-red blood of charred corpses arises from the direct physical action of the heat and from the production of carbonic oxide-hæmoglobin in consequence of the inspiration of carbon monoxide gas. The presence of carbon monoxide in the blood is an almost positive proof that the person during life was not exposed to the influence of fire. The finding of soot or charred material in the respiratory passages is certain evidence that the individual was living and breathing during and in the presence of a fire. Burns of the second degree are not difficult to distinguish from cutaneous diseases, such as pemphigus, erysipelas, and dermatitis exfoliativa. Wounds administered before death may sometimes be easily demonstrated, at other times with difficulty. (*To be continued.*)

August 16, 1900.

Medico-legal Aspect of Death from Burns.—Dr. Lipkau concludes his paper by the citation of a number of autopsy protocols.

August 20, 1900.

Technics of Vaccination.—Dr. P. Weissgerber advises the use of a knife for vaccinating and urges the strictest asepsis to insure absence of infection of the wound. He particularly emphasizes the fact that severe squeezing of the skin is apt to foster infection, if there are germs present.

Centralblatt für innere Medicin, August 18, 1900.

A New Method for the Quantitative Determination of Fat. By Dr. Georg Rosenfeld.

Centralblatt für Chirurgie, August 18, 1900.

Operating-table; Leg Holders.—Dr. Egbert Braatz describes a new operating table which can be placed in any position rendered necessary or desirable for the various operations. He also gives details of new leg holders. One is made for each leg and consists of a stocking-like bag, with a broad extension at the knee, which is further divided into two broad straps, which are tied to any convenient part of the operating-table on the same side as the leg to which they are attached. The holders are made of sail-cloth or cloth and can be easily sterilized.

Centralblatt für Gynäcologie, August 18, 1900.

A Case of Fæcal Tumor.—Dr. W. Poten reports the case of a virgin, nineteen years of age, who presented a hard, irregular, and somewhat nodular, tumor of the abdomen which reached above the umbilicus and could be felt in the pelvis. The fundus uteri could not be definitely located nor could the appendages be felt. The diagnosis lay between ovarian cyst and myoma of the uterus. While the patient was in the ward awaiting the suggested operation, the tumor changed its appearance, its form and its consistency after repeated enemata which were administered for the obstinate constipation. A diagnosis of fæcal impaction was then made, and after the use of many high enemata and mineral waters, the tumor gradually disappeared.

New Instrument for Cervical Scarification.—Dr. Hermann Biermer describes the pen-like lancet used by photographers for cutting photographs. He has used it for scarification of the cervix by placing it in a rubber penholder which can be sterilized before use.

Berliner klinische Wochenschrift, August 6, 1900.

Significance of Changes in the Ganglion Cells in Psychoses.—Dr. E. Meyer says that not all psychoses, even acute and violent ones, are accompanied by ganglionic changes. Such changes as are found coincide with those seen in entirely different diseases and cannot be distinguished from those observed in diseases of entirely different course and ætiology.

Diabetes Insipidus. By Dr. H. Rebensburg.

Bacteriology of Pertussis.—Dr. G. Arnheim has found the bacillus of Czaplewshy and Hensel in forty-four cases of whooping-cough and in three autopsies. In other pulmonary cases, used as check cases, the bacillus was not found. It was seen in the sputum of the pertussis cases and was grown in pure culture. The bacillus, on culture, appeared in chains microscopically. Only the two poles took the stain, so that an individual bacillus appeared to be divided in the middle. The author thinks there is little doubt as to its true ætiological significance.

Idiopathic Temporary Clouding of Consciousness.—Dr. Placzek narrates two cases which have medico-legal bearings. One was a case of a woman forty years of age who suddenly became irrational in language and action. This condition lasted six hours when the woman's condition became normal and she had no recollection of her peculiar mental state. A few hours later she had a severe attack of migraine. She was menstruating at the time. The second case was that of a man who for a number of hours failed to recognize his relatives and friends, became very irritable and rough, and very suddenly returned to the normal state. The author is inclined to attribute these disturbances to circulatory disturbances in the cortex. In neither case was there any hereditary, hysterical or epileptic stigma.

Primary Sarcoma of the Stomach. By Dr. W. Mintz.

August 13, 1900.

Neuro-fibroma of the Posterior Fossa.—Dr. von Monahow reports such a case in which the diagnosis lay between this condition and an aneurysm of the vertebral artery. On account of the absence of circulatory disturbances, syncope and apoplectic attacks, and on account of the predominance of nervous systems, a tumor was correctly diagnosticated.

Treatment of Impotence.—Dr. J. Zabludowski advises massage of the testicles and spermatic cord, the perinæum and the inguinal region, in both the recumbent and side positions. Massage of the abdomen is then practised, followed by resistance movements of the lower extremities, the muscles of the back and of the abdomen. Sensitiveness of the sexual organs soon disappears. The penis is never touched during the manipulations, the treatment being not aphrodisiac, but directed toward regenerating nervous weakness and restoring the general condition. Attempts at coitus are forbidden for from six to eight weeks. Hygienic and psychic influences are also brought to bear upon the patient.

Blood Pressure Measurements with Gärtner's Tonometer. By Dr. Schülle.

Charcot-Leyden's Crystals and Spermatin Crystals.—Dr. Benno Lewy recognizes no identity such as has recently been alleged between these varieties of crystals. Their forms are not identical, they react differently to iodine. The former are but slightly refractive, the latter doubly refractive. The author believes that the chemical differences of the crystals will soon be demonstrated.

The Stomach-pump as a Peristaltic Agent.—Dr. Oswald Ziemmsen says that by daily irrigation of the stomach the peristaltic action of the stomach and intestines can be evoked and augmented. The quantity of irrigative fluid must be increased daily and the process repeated from fifteen to twenty times at each session. This method is valuable in neuroses, hyperacidity, atony, dilatation and chronic constipation.

August 20, 1900.

Sugar Derivatives of Albumin.—Dr. Julius Wohlgemuth has experimented with plant albumin, milk albumin, the nucleo-proteid of the liver, casein, vitellin and gelatin, and concludes that whereas many albumins are intimately combined with a small amount of carbohydrate which can be transformed into sugar in the body, this is not true of all proteids. The investigation of the subject is by no means complete.

Judgment of Milk Preparations. By Dr. W. Caspari.

Influence of Tesla's Current on Metabolism. By Dr. A. Loewy and Dr. Toby Cohn.

Therapeutic Experiments with High-voltage, Rapidly-alternating Currents.—Dr. Toby Cohn has tried Tesla's current in a variety of articular, cutaneous, metabolic and functional nervous diseases and has not seen any perceptible objective changes, nor was there any decided change in blood-pressure or metabolism to be observed. Subjectively, patients seemed to improve, especially as regarded ability to sleep. A specific action on the skin was not demonstrated.

Wiener klinische Wochenscrift, August 16, 1900.

Pulsating Exophthalmos.—Dr. Romuald Keschmann describes a case of this kind in which the main symptoms were a partial thickening of the frontal and parietal bones, flattening of the frontal bone and shortening of the right half of the lower jaw, paresis of the right internal pherygoid muscle, and atrophy of the right temporal and masseter muscles, with atrophy and hyperæsthesia of the right half of the tongue. There was a pulsating exophthalmos without subjective or objective murmurs. The pulsation was diminished, but not stopped by carotid compression. The right eye was highly myopic and there were no changes in the fundus. There were ptosis and ectropion of the upper eye-lid and a paresis of the superior rectus and externus muscles. The diagnosis reached by exclusion was a retrobulbar angeioma or a pulsating encephalocele of the orbit. The treatment of such cases is, first, the trial of digital compression of the common carotid. If this fails, tying this vessel must be resorted to. Accessible angeiomata of the orbit may be attached by the galvano-cautery.

Echinococcus Tumors.—Dr. D. Kokoris reports cases of echinococcus tumor of the neck and multiple tumors of this variety of the peritonæum.

Wiener medizinische Blätter, August 16, 1900.

Specific Energies of Nervous Substance. By Dr. Hugo Pretori.

Artificial Feeding of Infants.—Dr. O. Heubner speaks of the importance of sterilization, exact dosage and practically correct determination of percentages in modern methods. Prolonged cooking of the milk is not essential, but heating the milk for twenty-five minutes at 140° F. accomplishes all that is necessary without the disadvantages attendant upon sterilized milk.

Clinical Varieties of Diabetes. (*Conclusion.*) By Dr. W. Pavy.

Monatschrift für Geburtshülfe und Gynæcologie, July, 1900.

Fibromyoma of the Right Round Ligament.—Dr. A. von Mars describes a case of this great rarity. The tumor was large, somewhat movable, hard, and filled the right half of the abdominal wall. The diagnosis was confirmed by operation.

Birth of a Thoracopagus.—Dr. Palleski narrates a case in which dystocia was found, on examination, to be due to a second head filling the pelvic cavity. After perforation of the head already born, a monster was easily delivered. The two fœtuses were united from the umbilicus to the manubrium, possessed one large liver and one large heart, but had independent lungs and planæ and genital organs. They were both females.

Anatomical Changes in Interstitial Myomata in the Puerperium.—Dr. Hammerschlag finds that the tendency of these growths in the puerperium is toward, first, simple necrosis; secondly, necrosis with softening; thirdly, necrosis with purulent formation; lastly, putrefaction with destruction of the tumor. All these processes may be simultaneously present. Four cases were examined as the basis of the study.

Contribution to the Study of Chorionic Epithelioma and Mole Formation. By Dr. A. Solowiz and Dr. J. Krzyszkowski.

Formation of Artificial Vagina.—Dr. Sitsnisky describes an interesting case in which an artificial vagina was made by blunt dissection up to what was supposed to be a uterus filled with blood. It was found, however, that the entire uterus had undergone fibrous degeneration, and it was removed. Two flaps which had been formed at the vaginal orifice were sutured to the opening in Douglas's cul-de-sac, so that the newly-formed vagina was covered by epithelium and had no chance of contracting. The tubes and ovaries were left. The functional and anatomical results of the operation were excellent two years later.

Axial Torsion of the Uterus. By Dr. Hans R. von Woerz.

Tubercular Cyst of the Ovary. By Dr. W. Grusdew.

Revue de chirurgie, August 10, 1900.

Intestinal Exclusion. (*Continued article.*)—M. F. Terrier and M. A. Gosset, in this contribution, consider the development and history of the operation.

Large Sebaceous Adenoma of the Face.—M. G. Curtis and M. Lambret report the case of a man fifty-six years of age who had a tumor of the face occupying the entire masseteric region and extending to the lower jaw. It emitted a fœtid odor and was exceedingly hard. It was movable upon the subjacent tissues. It was removed and proved microscopically to be an adenoma of sebaceous origin and of a benign character. There was no adenopathy.

Osteoplastic Amputations in Continuity.—M. Z. Samfirescu describes in detail his method of performing osteoplastic amputations in continuity upon the long bones of the extremities. The purpose and advantage of the operation lies in the fact that it is thus possible to secure a bony stump with a diaphysis which replaces completely the conditions in the trunk. At the same time, the stump will be one sensitive to all changes of temperature, and prosthetic apparatus can be applied directly to it.

Family Lipoma of the Plantar Arch.—M. Charles Féré describes two cases existing in cousins and emphasizes the relationship of the patients. He regards these cases as cognate to the family nervous and visceral diseases.

Gun-shot Wound of the Stomach, Colon and Diaphragm.—M. O. Laurent reports such a case operated upon the diaphragm being sutured. The wounds of the stomach and colon were not sewed; but the patient recovered. The author thinks immunity from peritonitis may have been due to the inclined position of the patient in bed.

Cancer of the Large Intestine. By M. R. De Bovis. —A statistical article. (*Continued.*)

Anatomical Studies of the Cæcum and Appendix.—M. G. Pérondi says the colon, in 83 per cent. of cases, lies in the most dependent part of the right iliac fossa; in 14.5 per cent. in the middle iliac region. In 25 per cent. of the cases examined it lay in the pelvic basin. The axis of its direction is obliquely to the right, upward and backward. The appendix is most often vertically suspended below the cæcum. In ten cases it was found behind the intestine.

Gazette hebdomadaire de médecine et de chirurgie, August 16, 1900.

Uricæmia in Children.—M. J. Comby says that this condition is the equivalent in adults of gout, diabetes, asthma, migraine, etc., and may be called "embryonal arthritism." It is evidenced by digestive disturbances, nervous manifestations, cutaneous eruptions and urinary symptoms. The urine shows increased specific gravity and acidity, azoturia and phosphaturia are present, there is an excess of uric acid and occasionally a small amount of sugar or albumin. Headache, vomiting, pains in the joints and bones, cerebral excitement, night terrors, convulsions sometimes of an epileptic character, eczematous or lichen-like eruptions, are the main symptoms. Sometimes an asthma-like attack appears. Symptomatic treatment, diuretic and diaphoretic stimulation, and attention to the stomach and intestines, are the indications.

August 19, 1900.

Treatment of Pott's Disease.—M. A. Broca and M. A. Mouchet advocate Sayre's method of suspension and advise chloroforming during its performance to obtain perfect muscular relaxation. Recent gibbosities will disappear during suspension. They are doubtful whether rapid reduction gives as good permanent results as long-continued suspension with the wearing of a suitable plaster jacket.

Presse médicale, August 18, 1900.

Morphology of the Blood.—M. H. Dominici, in a brief review of the cells of the normal blood, enumerates them as follows: Red blood cells, 5,000,000 to the cubic millimetre; white blood cells, 4,000 to 7,000 to the cubic millimetre. Among the varieties of white cells are the polynuclear neutrophiles, 60 to every 100 in the adult; polynuclear eosinophiles, 1½ to every 100 in the adult; the "mastzellen," two-tenths of one per cent. in the adult, and the mononuclears, the hæmatoblasts of Hagem, thirty-eight per cent. in the adult.

Indépendance médicale, August 15, 1900.

The Tubercle Bacillus. (*Conclusion.*)—M. Bernheim, in an exhaustive bacteriological study, says that the bacteria associated with the tubercle bacillus in phthisis, are complicating in their activity, rather than acting as prohibitive agents of the tubercle bacillus. This is not the case *in vitro,* however, where the pyogenic microbes and the staphylococcus aureus show an absolute antagonism to the bacillus of Koch. The author also touches upon the clinical symptoms presented by a mixed pulmonary infection and that in which the tubercle bacillus alone is the noxious agent.

Journal des praticiens, August 18, 1900.

Rhinitis Due to Lœffler Bacillus in an Infant.—M. Thomas reports a case of rhinitis which gave all the clinical evidences of diphtheria and in which the Klebs-Lœffler bacillus was found. Antitoxine was administered and produced a cure.

Crystallized Digitalin in Grippe and Pneumonia. By M. Ch. Fiessinger. (*Review.*)

Rivista critica di clinica medica, July 28 and August 4, 1900.

On Red Blood Cells which Stain with Methylene Blue in the Fresh State; their Presence in the Blood in Health and Disease. By Dr. Luigi D'Amato and Dr. Pietro Villari.—Two years ago Poggi found that there existed in the blood of individuals with severe anæmia certain red blood cells which stained with methylene blue in the fresh specimens. From a series of investigations this observer concluded that these cells were an evidence of imperfect regeneration of the blood, and that their presence was an indication of advanced changes in the hæmatopoietic system. He believed that they were the last link in the chain of cell changes that characterize the severe affections of the blood; that they were the last to appear and the first to disappear when improvement set in. He did not find these corpuscles in the blood of healthy persons, and he attributed an exclusively pathological significance to them. More recently Riva has studied these cells and found that they are not constantly present in anæmia.

The present writers have studied the clinical significance of the cyanophilous cells in a series of observations on anæmic and on healthy individuals. Their procedure consisted simply in counting the cyanophilous cells in a Thoma-Zeiss apparatus after the preparation had been stained for several hours in a solution of methylene blue, as recommended by Poggi. The blood of six patients with anæmia, of one with leukæmia, and of twenty-one healthy persons was examined. In three of the anæmic patients in whom the anæmia was moderate in severity the blood showed many cyanophilous cells deeply stained blue (after mixing the blood with the staining solution and allowing it to stand for five or six hours); in addition, a few red cells were faintly colored. In the other three, secondary anæmias of greater severity, the same appearances were noted, and the same conditions were also found in the case of leukæmia. In the healthy individuals the presence of these cyanophilous cells was found to be constant, showing that these cells are not necessarily a pathological phenomenon. The number of these cells in the blood of healthy persons is not so great as that in the blood of patients with severe anæmia, but the number in both health and disease is exceedingly variable. The physiological significance of these new corpuscles must be more accurately determined, but there is no doubt that they are constituents of normal blood. The quantitative study of them may be of value, but their mere presence is not pathognomonic.

Riforma medica, August 4, 1900.

Bacteriological Examination of the Fluid Obtained by Quincke's Lumbar Puncture. By Dr. Giovanni Donzello.—The purpose of this research was to determine the value of bacteriological examinations of the cerebrospinal fluid in the diagnosis of meningeal infections. The writer's experiments were conducted on dogs, and he employed cultures of different species of germs, some endowed with great motile powers, others absolutely non-motile. He began with the bacillus of typhoid fever. The skull of a dog was trephined under aseptic precautions and half a cubic centimetre of broth culture of the bacillus was injected under the dura by means of a hypodermic syringe, after the withdrawal by means of another syringe of an approximately equal amount of cerebrospinal fluid, in order that the amount of liquid in the cerebrospinal space might remain the same. The opening in the cranium was carefully closed and at intervals of two, three, six, or nine hours after the operation, lumbar puncture was performed in the four animals. The fluid thus obtained was examined bacteriologically. The agar plates prepared with this cerebrospinal fluid were kept in incubators for forty-eight hours and the following results noted: The bacilli of typhoid fever did not reach the spinal cavity until three hours had elapsed after the inoculation into the subdural space. After six hours they were present in the spinal cavity in moderate numbers, after nine hours they began to diminish in number, and in eleven hours they had disappeared. The writer performed similar experiments on dogs with cultures of the bacillus of anthrax, and found that after six, nine, and twelve hours, respectively, no bacilli were found in the spinal cavity, as attested by the plate cultures prepared from the fluid obtained by lumbar punctures. In four other dogs the writer performed similar experiments with *Staphylococcus pyogenes aureus* and *Staphylococcus pyogenes albus.* In these animals he found the germs in the spinal cavity three, six, and nine hours after the operation of trephining, and a somewhat smaller number were present after twelve hours. In order to prove his experiments and to eliminate the possibility of a disturbance in the condition of pressure in the cerebrospinal liquid, he next repeated the entire series of tests with solid agar cultures instead of broth cultures injected into the subdural space. He concludes from all these experiments that when the subdural space is infected with a germ against which the animal is immune the organism finds its way into the lumbar portion of the spinal cavity with difficulty. The reverse is true in the experiments with germs which are pathogenic in the animals. The motility of the germ has no relation to the time of its appearance in the lumbar region, for there was no appreciable difference between the time of appearance of the typhoid bacillus, which possesses a very marked degree of motility, and that of the *Staphylococcus aureus,* which is non-motile. The reason of this is to be found in the fact that in the presence of cerebrospinal fluid the motility of the bacillus of typhoid fever gradually diminishes until it almost stops. This may be readily seen in a hanging-drop preparation in which the bacillus is mixed with cerebrospinal fluid.

Klinitchesky Journal, July, 1900.

Two Cases of Neurosis of the Gastrointestinal Tract. By Dr. A. P. Langovoi.

Further Observations concerning the Treatment of Aneurysms according to Lancereaux's Method. By Dr. L. E. Golubinine.—Although the writer had very discouraging results with Lancereaux's method in four cases which he reported in 1899, he determined to test this treatment further, and now reports four other cases in which injections of gelatin were employed. Two of the patients died, in one the condition was unchanged, and in one the subjective symptoms became worse. The number of injections varied from four to fifteen. The first patient was a man aged thirty-seven with a sacculated aneuryism of the ascending aorta. In this case Tuffnel's method of treatment proved to be the most efficient, so far as the subjective well-being of the patient was concerned, while the injections of gelatin seemed to be of no avail. The patient received twelve injections of 200 grammes (about seven ounces) each of a two-per-cent. solution of gelatin. The injections caused considerable pain, and sometimes even a rise in temperature. The patient became worse and the gelatin treatment was abandoned. He died, some time after he had left the hospital, of a rupture of the aneuryism into the bronchus. The second patient was a woman aged fifty-five with an aneurysm of the ascending aorta. The injections gave rise to unpleasant local reaction, to palpitation, to a sense of oppression about the heart, and to a rapid pulse. The treatment was abandoned in this case also, as the patient showed no signs of improvement. The third patient was a man aged forty-four with an aneurysm of the ascending portion and of the arch of the aorta. Four injections were used, resulting each time in a slight rise of temperature, but without any change in the subjective symptoms or in the physical signs. As there was a history of syphilis, mercury and potassium iodide were given, and the dyspnœa and pain in the chest diminished somewhat. The fourth patient was a man aged thirty-nine, with aneurysm of the ascending aorta. He received fifteen injections of gelatin solution, and each was accompanied by a rise of temperature. The result of the injections was very discouraging, inasmuch as the aneurysm increased decidedly in size, as determined by skiagraphy. His subjective symptoms, however, improved. It was noticed that the tumor became smaller after each injection, but only for a short time, for it increased to a larger size than before after a while. The patient died soon after he had been discharged from the hospital. In conclusion, the writer analyzes the fifty-six cases of aneurysm that have been reported as treated by Lancereaux's method, and finds that more or less satisfactory results were obtained in about thirty-five per cent. of all the cases observed. It appears that some authors are very enthusiastic concerning this method of treatment, while others are of the opposite opinion. The subjective improvement was marked in some cases, and in a few there were remarkable changes in the physical signs. On the whole, the results are encouraging, considering the disease with which we are dealing. Further investigation, both clinical and experimental, is needed before condemning or finally indorsing the method of Lancereaux.

A Case of Persistence of Botalli's Duct in a Child Six Months Old. By Dr. V. I. Lisienko.—In this case the anomaly of the Botallian duct was the only malformation of the cardiac system that was found in the autopsy. This is a rare occurrence, as generally two or more congenital anomalies coexist. In searching for similar cases in literature, the writer has been able to find only five such instances out of a total of sixty cases of congenital anomalies of the heart and great vessels. The physical signs in this case were as follows: The apex beat was distinctly visible in the sixth intercostal space, a centimetre outside of the mammary line. The absolute dulness of the cardiac area was increased in all dimensions.

At the apex both sounds were abnormal, and the first was accompanied by a blowing systolic murmur. The same murmur was heard over the aorta, but it was loudest over the pulmonary artery; the second pulmonic sound was accentuated. The systolic murmur was transmitted to the left carotid artery, and the same murmur was faintly heard behind, between the scapula and the vertebral column, at the level of the third or fourth thoracic vertebra.

On Multiple Sarcomatosis of the Skin. By Dr. V. V. Ivanoff.

Vratch, July 29, 1900. (August 10, N. S.)

Syphilis of the Granddaughter. By Professor A. I. Pospieloff.—The question as to the hereditary transmission of syphilis to grandchildren and great-grandchildren has been the subject of investigation in the past without having been definitely solved, principally on account of the fact that the manifestations of hereditary syphilis are so protean that no definite diagnostic signs exist (Fournier). Syphilis of the second generation may be characterized by the same symptoms as that of the first, or it may be accompanied by a series of phenomena that are called parasyphilitic (Barthelemy). The manifestations of syphilis of grandchildren are unusually variable, and consist principally of a series of dystrophies, among which general atrophy plays a prominent part. In many cases there are no manifestations of the type of secondary or tertiary syphilis in these infants as we find them in the first generation. As a rule the atrophy begins in utero. The children are born prematurely and die at an early age, "of nothing," as the French say. The autopsies of these infants do not reveal anything characteristic of syphilis, in contrast to the findings in the bodies of hereditary syphilitics of the first generation. Of 83 autopsies on this latter class of infants the writer found that in the majority (61) there were more or less marked syphilitic lesions in the internal organs. In the second generation miscarriages are less frequent than in the first, and in those cases in which syphilitic grandchildren are born at term they may be perfectly well during infancy, but when they reach the age of from two to five years they become cachetic without any apparent cause. The diagnosis of syphilis in the second generation is very difficult, because the symptoms are so indefinite and the history of parents and especially of grandparents cannot always be obtained. The author reports the history of a girl aged thirteen years. Her father never had syphilis, but stated that the child's grandfather was known to have had the disease and been treated for it. The patient was an anæmic girl whose size did not correspond to her age; the skeleton was ill developed and the whole appearance that of a girl of nine or ten years. She had a chronic rhinitis with the formation of thick brownish crusts and a deep ulcer of the hard palate. Her mother had twelve children, all of them born at term; two died during labor, of accidental causes (asphyxia, prolapse of the cord). The patient had suffered from coryza from earliest childhood. Both the patient and her father had Hutchinson's teeth. The child improved considerably under antisyphilitic treatment. The author believes that she may transmit syphilis to her children (in other words, hereditary syphilis in the third generation), and that syphilis in the second generation may be accompanied not only by dystrophies but also by gummatous processes, without necessarily being present in the parents.

Ethyl Bromide Anæsthesia for Extraction of Teeth. By Dr. A. P. Garine.—The writer has collected 1,103 cases in which ethyl bromide was used in dental operations without a single accident. In one case the ethyl bromide proved of no avail in producing anæsthesia, and chloroform had to be substituted. Children bore the drug well. The greatest number of teeth extracted at one time under the influence of the drug was seventeen. The effect of the first moments under the anæsthetic is a sensation of asphyxia, and sometimes this gives rise to violent excitement on the part of the patient. In the majority of cases the patients recover rapidly from the effects of the anæsthetic, and the after-effects are not serious. The ordinary Esmarch mask is used and about 15 grammes (half an ounce), of the anæsthetic are given during the operation. Bromide of ethyl is said to be better than nitrous oxide because it does not produce the cyanosis which the latter causes, and because the analgesia lasts longer, even after the patient's consciousness returns.

Materials for the Study of the Epidemic of Plague in Kolobovka. By Dr. M. G. Tartakovsky. (See also articles on this subject in the *New York Medical Journal*, Vol. LXXI, pages 616, 659, 836.)—The writer had charge of the bacteriological investigations in connection with the epidemic of plague in the village of Kolobovka, in the Province of Astrachan, and gives the results of his studies in this paper. (*To be continued.*)

Medical Report of the Municipal Lying-in Institutions of St. Petersburg for the Year 1899. By Mme. E. L. Pouschkine. (*Continued.*)

Roussky Archiev Patologyi, Klinitcheskoy Meditsiny i Bakteriologyi (Russian Archives of Pathology, Clinical Medicine and Bacteriology), Vol. IX, No. 6, June, 1900.

A Study of Immunity. The Bactericidal Rôle of Serum in the Pathogenesis of Relapsing Fever. By Prof. I. G. Sawtschenko (Kazan.)

Two Cases of Lymphosarcoma. By Dr. A. I. Kostkevitch.—The writer lays stress upon the fact that lymphosarcomatosis is frequently taken for Hodgkins's disease and for tuberculous adenitis. He reports two cases of lymphosarcoma and discusses the diagnosis of this affection. In both cases there was a rise of temperature, and the author reminds us that fever sometimes occurs in lymphosarcomatosis, so that its presence does not necessarily point to tuberculosis. It is very difficult to diagnosticate pseudoleukæmia from tuberculosis of the lymphatic glands during life. In adults the presence of enlarged glands in the mediastinum, if sufficiently marked to cause dullness on percussion, especially if accompanied by enlargement of the liver and the spleen speaks against tuberculous adenitis and in favor of sarcoma. The temperature curve does not usually present anything characteristic, but distinct remissions may occur during which the general condition of the patient is very much improved, and the morbid process seems suddenly arrested.

On the Changes in Weight in Tuberculosis of Nurslings. By Dr. A. P. Morkovitine.—The study of 160 cases of tuberculosis in infants, with reference to the alterations in the weight curve of the patients, has enabled the writer to state that, (1) In miliary tuberculosis the most frequent type of weight curve is one with a tendency to gain in fifty-eight per cent. of the cases observed. (2) In thirty per cent. of these cases there is an increase in weight during the first half of the infant's life (all the cases died in infancy at the hospital), and a decrease in weight during the second half. (3) In tuberculosis of the lymphnodes, where the glands were not yet disintegrated by caseation, the type of curve observed was (a) showing an increase during the entire life of the infant, and (b) showing an increase in the first half and a decrease during the second half (thirty-eight and thirty-one and a half per cent. respectively). (4) In cases with pulmonary cavities the most frequent type was that showing an increase in the first half, and a decrease during the latter part of life (fifty-four per cent., the other types rarely). (5) Therefore a tendency to increase in weight points to the presence of miliary tuberculosis, and a decrease in the second half of life to the existence of cavities. The weight curve gives no clue to the duration of the tuberculous process. Complicating diseases, the general development, the method of feeding, and other similar conditions have no influence upon the weight curve of these infants according to Morkovitine's observations.

Cutaneous Hypæsthesia in Tabetics. By Dr. Grebner.—The writer examined the tactile sensibility in fifty-two tabetics belonging to the intelligent classes, and found that hypæsthesia always begins in two centres, corresponding to the third dorsal and the first sacral nerves, and that the limits of the hypæsthesia correspond to the peripheral projection of the posterior roots. From each of these centres the affection spreads simultaneously from above and from below to the neighboring posterior roots. The upper centre is usually more frequently affected than the lower, and the hypæsthesia of the upper centre may be considered as one of the initial symptoms of tabes. The superior roots of the neck, beginning from the fifth cervical, remain normal even in the most advanced cases. Hypæsthesia is always present wherever there is ataxia, and the degree of the latter depends appreciably on the degree of hypæsthesia. The skin over the atactic joints is not necessarily hypæsthetic, and the author could not find any improvement in the hypæsthesia of the joints, in the cases in which there was a marked improvement in the ataxia as the result of the education of the patient's muscles.

Concerning the Minute Structure and Metamorphosis of Plasmodium Brassicæ (Voronine) in the Course of its Intracellular Development. By Dr. S. Navaschine.—The writer studies the microscopical biology of a parasite first described by Voronine and belonging to the class of myxomycetes. The parasite grows on the roots of the cabbage plant and of other plants of the family *cruciferæ.*

Miscellaneous.

Nitrite of Amyl as an Aid to Auscultation of the Lungs.—Dr. Albert Abrams (*Medical Fortnightly,* August 25th) in a paper on Diseases of the Lungs and Pleura says that one must not forget that in some persons forced expiration causes a bronchospasm and develops sounds not unlike those of asthma. In such a contingency amyl nitrite inhalations are valuable. If the subject inhales the drug, we need not fear mistaking the sounds provoked by voluntary spasm of the bronchial tree. In some forms of bronchitis spasm may be an element in the dyspnœa, and conversely a catarrhal factor may complicate an attack of asthma. *Nitrite of amyl* by inhalation removes the dyspnœa, if occasioned by spasm, but does not influence it if dependent on bronchitis. To distinguish the râles caused by bronchitis from those of asthma, auscultate the chest after nitrite of amyl inhalation; the râles of the former persist, while those of the latter are dissipated. This drug, when inhaled, will bring out certain sounds which would otherwise remain unnoticed.

Iodide of potassium, he says, is another valuable drug in diagnosis. In suspected apical lung affections, where a modified respiration is present without râles, the latter may be produced artificially by the administration of the iodide. The same agent will also intensify the auscultatory phenomena of an old pleuritis by augmenting the pleural transudate.

Cold Water as an Antituberculous Tonic.—The *Gazzetta medica lombarda* for July 15th says that water is the best of all tonics, and after so many years of continued experiment it becomes more in evidence as a prompt and conspicuous means of stimulating the appetite and blood production, augmenting the muscular vigor, and increasing nervous tone and metabolism. Cold water, in short, extends its influence to the innermost recesses of the organism. Its action, according to the *Gazzetta degli ospedali e delle cliniche* for July, is rendered yet more beneficial by reenforcement with proper dietetics; like the constant use of pure air and sunlight, this measure facilitates the counterbalancing of retrograde by progressive metamorphoses, thus putting a stop to the progress of phthisis.

Analyzing closely the effects of this tonic we find that it particularly acts as a regular gymnastic measure to the peripheral terminations of sensory nerves, and also to the vasomotors, which facts lessen the vulnerability of the tuberculous to catarrhal affections, and therefore diminish the preparation of the soil for the invasion and progress of the bacilli. For this reason also this measure proves most useful in local tuberculous processes.

The points aimed at to combat and overcome the debility of the pulmonary circulation are: 1. Reenforcement of cardiac energy; 2. Elevation of tone in the vessels and tissues, inducing at the same time collateral or active hyperæmia of the diseased organ; 3. Increase of formative activity in the region of the diseased organ; 4. Reenforcement of the entire organism, particularly from the point of view of innervation and circulation. Not uncommonly hæmoptysis, fever and night sweats disappear under hydrotherapy. Winternitz cites the case of a Swedish physician who as the result of great experience was convinced that tuberculosis was curable by cold water. He contracted a malarial fever in Africa which entirely resisted quinine, and yielded only to the systematic application of the cold douche. Going from there to Buenos Ayres, he was, while in the practice of his profession, attacked by repeated hæmoptysis, fever and night sweats. Having at that time no faith in any treatment, in order to do something he took to cold douches. He found them of prompt service, and discovered that they were beneficial in proportion to the coldness of the water. This led him to add ice to the water. By these measures he was cured, and from that period he espoused with enthusiasm the cold water treatment of tuberculosis. After twenty-two years' experience he proclaimed in 1890 the curability of phthisis by the following measures: First, a partial washing with water at the freezing point; later, affusions with such water; repeated general washings two or three times a day. Finally, immersion in baths at a temperature of 44.6° F., or at most of 55° F. Aberg believes that no contraindication to this method exists; it tends to cure all those who are susceptible of cure, and ameliorates the condition of the incurable, relieving their subjective disturbances. Winternitz uses a method differing but little from that of Aberg. He lays down as the corner-stone of the utility of his method a prompt and complete reaction, which he seeks to obtain with the lowest possible temperature, supporting it with adjuvant chemical and mechanical measures. A supplementary measure is the use of counterirritants which he applies over any spot where catarrh or specific infiltration exists. After treating upwards of four hundred patients by hydrotherapeutics during a space of thirty years, he has come to the conclusion that apart from its enormous prophylactic value (so great that he would have it become general in all institutions, factories, barracks, etc.), its results from the therapeutic point of view may be thus stated: In eighty per cent. of cases an arrest or relative cure of the disease with increase of weight; while in phthisis florida a less permanent arrest with also some relative cure in thirty-two per cent.

Maldevelopment of the Anus.—Dr. Ada White (*Indian Medical Record,* July 4th) records the following unusual case. A Mahommedan child, aged two years, was brought by its father with the following history:

The child had suffered from constipation from its birth. The stools were small and worm-like, passed with great difficulty, much straining and pain. The bowels were moved about every eight or ten days, very seldom without a purgative. The child appeared healthy and well-nourished, exhibiting no signs of ill-health. On separating the buttocks and stretching the skin of the perinæum, a small slit, about a quarter of an inch long, was seen in the middle line close to the root of the scrotum. Behind, at the situation of the anus, there was no opening, but a circular depressed area indicated its position. The skin of this area was thin, and in the centre there was a dimple. The father stated that when the bowels were moved the fæcal matter was forced out with great difficulty through the slit. The efforts made in evacuating completely exhausted the child. On examining the opening, it was found to be a narrow oblique slit, shallow in front, deeper behind. From the posterior border a narrow canal passed beneath the skin backwards to the rectum; through this canal the fæcal matter was forced. The small size explained the character of the motions and the difficulty experienced in defæcating.

A probe pointed bistoury was passed from the slit through the sinus into the rectum, and the tissues were divided backwards in the middle line; the track of the sinus being laid open, the incision was carried through the skin closing the anal orifice. This was followed by a copious discharge of fæces. The wound was enlarged sufficiently to allow the finger to pass easily into the bowel. The wound healed quickly, the result of the operation being quite successful.

The author comments as follows:

"Malformation of the kind met with in this case is rare. No such case is described. The malformation present in this case appears to have been due to failure in the development of the anal orifice and to partial persistence of the dorsal portion of the cloaca. In the early period of fœtal development the intestine ends in a cloaca common to it and the allantois. Subsequently the cloaca is divided into a dorsal and a ventral portion by the formation of a sæptum. As early as the fifth week there occurs an invagination of the epiblast behind the cloaca, and by the absorption of the invaginated tissue, communication is formed with the bowel; this is the anal opening. As this opening is being developed, the dorsal portion of the cloaca is closed by tissue which forms the perineum. In the case described above there was complete failure of anal development, and the closure of the cloaca was imperfect."

The Zoological and Geographical Distribution of Tuberculosis.—Dr. W. A. Evans (*Plexus,* June) summarizes his studies in this subject as follows:

1. Every animal having tuberculosis is a centre for the maintenance and spread of tuberculosis. We must admit great variance in danger, according to the animal affected. The danger from the cow, by reason of the fact that we drink milk uncooked, is great. The danger from the horse is much less. In spite of this variance, the proposition commends itself. All of the excreta and the excretions at times contain tubercle bacilli. These either go directly into man, there to run the gamut of his defence, or they go into the world, there usually to perish, but sometimes to persist and threaten men and other animals.

2. Neither animal nor aviary tuberculosis is identical with, although related to, human tuberculosis. The translation of human into animal and aviary tuberculosis and vice versa is also possible. The first part of this proposition is allowed by everybody. With regard to the second part, Theobald Smith's work seems to show that while there are structural and biologic differences between the bovine and the human bacillus, the differences are not of great pathological importance. This is borne out by cases of infection of people from bovine bacilli and of cows by human bacilli.

3. Inhalation and ingestion are the most frequent means by which tuberculosis is spread from man to man, from man to animals, and from animals to man.

4. The geographical distribution of tuberculosis is proof that the organism's extra corporal or saprophytic life is of secondary importance. Argument in support of this proposition is found at every step by the bacteriologist. If the bacillus is found regardless of temperature, of soil moisture, of total rainfall, of elevation from the sea level, of prevailing winds, then it must follow that its essentials are to be found in the body, where environment is more uniform. Nuttall's observation that the number of tubercle bacilli expectorated in the twenty-four hours is about three billions would prove that only an infinitesmal number live outside the bodies of animals. The lesser number of cases at great altitudes, away from cities in dry climates, etc., is due to the improved condition of the people and of their hygienic conditions, such as lack of crowding, well ventilated habitations, out-of-door life, vigorous existence, etc., rather than to difference in bacilli or difference in the effect on bacilli of their extra corporal environment. However, we cannot altogether deny the effect of sunshine and drying on the bacilli that lie exposed.

5. There is abundant evidence that the bacillus is modified by the bodies through which it passes. Such is the teaching of the work of Bang, of Smith, of Nocard, of Jones and many others.

6. While proposition No. 5 is incontestable there is no evidence that the disease will disappear by reason of a general immunity. In the contest waged between the system and this organism, the wandering cells and the chemical substances of the body play a lesser part than in almost any of the infectious diseases. Protection is had by reason of the activity of the fixed tissue cells of the body. In those diseases which are due to organisms violently poisonous to the human body, the reaction is sharp, and death or cure speedily results. The very mildness of tuberculosis is responsible for its ultimate severity. The fact that the system takes so little cognizance of it constitutes the difficulty. In consequence, special immunity is less a factor than in any other infectious disease. The general immunity that comes from great good health and resisting power must be allowed by all.

7. The decrease in the death rate from tuberculosis is more apparent than real. While fewer people seem to be dying of tuberculosis than formerly died of it, the proportion between the death rate from tuberculosis and the death rate from other diseases is not decreasing. In this connection we must bear in mind the fallacy of taking without great caution statistics that antedate 1880. If we limit our comparisons to the period since 1890 we shall not find any material decrease.

8. Tuberculosis is above all a disease of crowding, and therefore a disease of cities. The disposition of the age is toward city life, and therefore a slight decrease or even no increase in tuberculosis constitutes a gain.

9. At some future date in determining the question of favorable location in order that a man may escape tuberculosis himself, shield his family from it or get well, when once the disease has been contracted, we must ask the following questions: 1st.—What is the altitude? 2d.—What is the percentage of sunshine and cloud? 3d.—What is the soil moisture? 4th.—What is the atmospheric moisture? 5th.—What is the population per acre? 6th.—What is the amount of tuberculosis present in men? 7th.—What is the amount of tuberculosis present in animals and birds? 8th.—Is the mean temperature approximately that of the district from which the man is to go?

An Ætiological Study of Neuroses of Peripheral Origin.—Dr. H. Gradle (*Journal of Nervous and Mental Disease*, July) read a paper recently at the Chicago Neurological Society in which he objected to the name "reflex neuroses" as inappropriate. He classified under the head of "neuroses of peripheral origin" those nervous disturbances, sensory or motor, which are maintained by some peripheral anomaly, and which cease when the peripheral cause is removed. As examples, he quoted headache and migraine due to ocular defects or to nasal disease, the neuralgias due to disease of the accessory sinuses or disease of the teeth, the asthma of nasal origin, the laryngeal spasm of pharyngeal origin. Epileptoid convulsions were sometimes, but very rarely, he said, of reflex origin. The symptoms of exophthalmic goitre had been observed a few times as a nasal neurosis. Choreic spasms of the eyelids were probably the result often of chronic conjunctivitis, although this was not positive. According to the speaker's experience they were not due to refractive errors. Neurasthenia was not a neurosis of peripheral origin in any case; on the contrary, it was the underlying basis of many instances of such neuroses. When a peripheral source of annoyance was removed the neurasthenic manifestations were, of course, benefited.

The fact that errors of refraction usually caused in healthy people merely fatigue and blurring of the eyes, but in certain patients brought on disturbing nervous symptoms, could only mean that in the latter instance other factors were involved as well as the eye-strain. These influences predisposing to neuroses of peripheral origin could often be ascertained from the patient's history, but not always. They were enumerated and described in detail under the heads of "heredity," "insufficient nutrition during the nursing period," "want of outdoor exercise and inactivity of muscles," "loss of sleep," "mental worry;" in short, unhygienic surroundings. Anæmia was a very frequent determining condition. Disturbances of the intestines sometimes seemed to predispose to ocular neuroses, and occasionally such neuroses persisted on a psychic basis after the intestinal disturbance had disappeared. The gist of the paper was to the effect that the concurrence of various factors was necessary in the production of neuroses of peripheral origin, as well as the existence of a peripheral anomaly, and that these, consequently, should also receive due attention.

Proceedings of Societies.

AMERICAN LARYNGOLOGICAL, RHINOLOGICAL, AND OTOLOGICAL SOCIETY.

Sixth Annual Meeting, Held in Philadelphia on May 31 and June 1 and 2, 1900.

The President, Dr. D. Braden Kyle, of Philadelphia, in the Chair.

(*Continued from page 391.*)

Carcinoma of the Larynx.—Dr. Joseph S. Gibb, of Philadelphia, read this paper. The patient was a man who, about two years and a half before coming under examination, had begun to suffer from hoarseness. In August, 1899, after a severe coughing spell, a gristly substance had been discharged from the throat, followed by the spitting of blood. The difficult breathing and hoarseness had reappeared in about two weeks, associated with spitting of blood. When he was first seen, about November 1, 1899, the laryngeal mucous membrane was found to be unusually vascular, and there was a warty growth encroaching somewhat upon the lumen of the larynx. Just above the true cord was a warty mass, which fell over and closed the opening on inspiration. The unusual vascularity led the author to suspect malignancy, so pieces were removed and submitted to a pathologist, who reported that it was probably syphilitic, but he would not exclude malignancy. The patient had been put on full doses of the iodides, but from time to time portions of the growth were removed and submitted for examination. Eventually unmistakable evidence of malignancy had been found. The final diagnosis was that of squamous epithelioma of the larynx. The growth recurred rapidly after having been removed, though the patient's general condition was unusually good. A specimen of the growth was submitted to another pathologist, who confirmed the former diagnosis. On March 15th Dr. G. G. Davis had performed total extirpation of the larynx, under local anæsthesia with eucain-B. The larynx was removed from below upward, and from the left side toward the right, careful hæmostasis being observed. The parts were painted with an ethereal solution of iodoform and benzoin. The man left the operating table in good condition. He was placed in a room having a temperature of 80° F., and the air was kept moist with steam. His temperature gradually rose after the operation until his death, on the fifth day. The tugging on the trachea had caused the cutting out of some of the sutures. There was at no time any evidence of bronchopneumonia. The post-mortem examination revealed intense congestion of the trachea, but no evidence of pneumonia. The wound from the hyoid bone to the trachea had healed primarily, with the exception of one small fistula. From the cultures made it seemed evident that the patient had died of streptococcus infection. Dr. Davis thought this had come from the sloughing carcinomatous area in the larynx and septic absorption prior to the operation. From the experience in this operation he expressed himself as in favor of doing a preliminary tracheotomy. Cultures from the heart, blood, spleen, and lungs were pure cultures of the streptococcus. The tumor bore numerous papillary outgrowths. It had apparently originated from the vocal cords. The speaker thought the selection of total extirpation was a good one, but believed the trachea should have been fixed by a preliminary tracheotomy. He agreed with Dr. Davis that it was improbable that the infection had been introduced from without.

Dr. GEORGE L. RICHARDS, of Fall River, Mass., said that at the meeting of the society at Pittsburgh, two years before, he had raised the question of the difficulty of making the diagnosis between carcinoma and syphilis at times. The case that he had reported at that time had illustrated this difficulty. The man had improved under the use of large doses of iodide of potassium. The fragments removed had been too small for a satisfactory microscopical examination. The patient's life had been prolonged by the tracheotomy. After death the larynx had shown a most extensive involvement by a slowly extending, almost dermoid carcinoma. This explained the difficulty of making the diagnosis. Total extirpation had not been attempted, because of the involvement of the œsophagus. It seemed to him that the operation was not to be thought of unless one could be reasonably sure that the area of carcinomatous tissue was comparatively small, and that the operation was done sufficiently early. If one could not be sure on these points, he thought it preferable to do a tracheotomy and make the patient comfortable for the remainder of his days.

Dr. ARTHUR G. ROOT, of Albany, said that the few isolated cases reported seemed to show that total extirpation of the larynx could be done and the patient still survive, but a careful review of the literature seems to warrant one in doing a tracheotomy and allowing the patient to get along as comfortably as he could. If the larynx was put at rest in this manner, the malignant process quieted down, and life was probably as much prolonged as by any other method. There was reason to doubt whether the infection had arisen in the manner suggested. He thought it would have been much better to keep the patient on rectal feeding instead of allowing him to take any fluid by the mouth. Personally, he had much faith in washing out the rectum and using large saline injections. In this way a patient could get along very well for several days with absolutely no nourishment by the mouth.

Dr. WENDELL C. PHILLIPS, of New York, said that from his own experience and observation he felt sure that patients would live longer if nothing more than a tracheotomy were done in the advanced cases. Advanced cases of malignant growths of the larynx should be left alone. If only tracheotomy was done the patients rarely suffered.

Dr. NORVAL H. PIERCE, of Chicago, said that he had had three cases of carcinoma of the larynx. All the patients had been operated on by extirpation of the larynx, and all had died within nine days. One important lesson to be learned from the paper was that positive reliance could not always be placed on microscopical examinations of parts removed from the surface of growths. For the removal of deeper portions Schrötter had devised a special instrument. The speaker knew of a case of carcinoma occurring in the practice of a colleague, originating on the vocal cord, which had been removed by laryngofissure. The region around the carcinoma had been excised. This occurred over a year ago, and the patient was known to have been alive three months ago, with no recurrence. Most of these patients died of septic pneumonia; the next most frequent cause of death was general sepsis. This was not surprising when it was remembered that the mouth cavity or the lower portion of the pharynx was necessarily opened and the infectious secretions from the mouth could not be kept from the wound. The tugging on the trachea was remediable by improved technics. The cause of the tugging was obscure; it might be due to the weight of the lungs. The technics of laryngofissure and extirpation of the larynx was improving, and the mortality diminishing, so that one should not speak too sweepingly concerning the non-advisability of operating.

Dr. R. C. MYLES said that the statistics were certainly not very flattering. It should be remembered that life was not worth much to a person afflicted with a malignant tumor of the larynx. He would protest unreservedly against late operations.

Dr. LEWIS C. KLINE, of Indianapolis, said that he could recall six cases of carcinoma of the larynx. On one occasion a physician had nearly suffocated in his office. He was taken to the hospital, and tracheotomy was performed within a few hours. This was intended as an operation preliminary to opening the larynx, but nothing further was done. The patient returned to his home and finally died. In the other cases he had advised against operation, and he believed this was the best plan in such advanced cases.

Dr. OTTO JOACHIM, of New Orleans, said that it was only too true that laryngologists rarely saw the cases early, but he had had an opportunity of seeing one in the person of a colleague. There had been no difficulty in this instance in making the diagnosis. The patient had, on his advice, been operated upon and had made an excellent recovery. The disease had never recurred in this locality, but he had died about two years later from metastasis.

Dr. GIBB said that he was sorry to see American surgeons so pessimistic when our German brethren were so enthusiastic about the operation. He himself did not feel quite so enthusiastic as formerly. He preferred laryngectomy, because tracheotomy offered only a brief respite; the disease went on. Laryngectomy, to be sure, involved taking desperate chances, but it gave the patient a possibility of complete cure and, if it was unsuccessful, the case terminated quickly.

Suprarenal Extract in the Treatment of Nasal Hydrorrhœa.—Dr. BERNARD BERENS, of Philadelphia, reported this case. The sensitive area on the left middle turbinate had been cauterized and the parts sprayed with benzoinol and iodine. A four-per-cent. solution of cocaine was given for the patient to use at night, or when the flow was more profuse. On January 9th a fresh solution of suprarenal extract was applied with cotton and allowed to remain ten minutes, and the local and general treatment was discontinued, five-grain tablets of the extract being ordered instead, to be taken internally at intervals of three hours. After the third dose the discharge had ceased entirely. The flow stopped in a few days, and the use of the extract was discontinued. The flow having returned in about three weeks, the use of the remedy was resumed, with the result that the discharge ceased and had not returned since that time. It was possible that the remedy acted on the vasomotor centres in the medulla. The author took the view advocated by Bosworth, that nasal hydrorrhœa was the result of a neurosis of the fifth nerve. The frequent absence of albumin and sugar in the fluid discharged in the cases of hydrorrhœa was one point in favor of its not being cerebrospinal fluid; another was the enormous quantity of fluid voided. Moreover, there was no anatomical ground for the establishment of a flow between the subarachnoid space and the nasal chambers.

Dr. C. P. Linhart, of Columbus, Ohio, said he was reminded of a case seen in a young man. This person had used about a dozen handkerchiefs daily for three months previously, his trouble beginning with a severe cold, and growing slowly worse. After trying various local applications without benefit, he had made use of a spray of Dobell's solution with a drachm of the suprarenal extract to the ounce. Within three days the discharge had been reduced to such an extent that only two or three handkerchiefs were used daily. There seemed to be more fluid discharged from the side on which the turbinal was the more swollen. After four or five weeks of this treatment the discharge had ceased. It was expected that it would return during the winter, and it had done so, but had been promptly checked by the same application.

Dr. Sargent F. Snow, of Syracuse, said that he had seen a few of these cases, and the patients had recovered. He was in accord with the author in his argument that this discharge was not cerebrospinal fluid. He had no routine treatment for these cases, treating each one according to the special local conditions found. He had had probably ten cases of well-marked hydrorrhœa, four very profuse, and all the patients had been cured by attention to nasal and ethmoidal drainage.

Dr. M. D. Lederman, of New York, said that in the recent literature on this subject he had found that the character of the discharge had been described more particularly with reference to its action upon the linen handkerchief and the presence of a "reducing" substance.

Dr. Wendell C. Phillips said that he was not altogether clear as to just what was meant by nasal hydrorrhœa, but he had had a case which might come under that head. A young woman had sought his advice because of a troublesome watery nasal discharge. Examination showed all the tissues waterlogged. He had made the diagnosis of abscess of the sæptum, and had incised the latter, but no pus had been evacuated, only fluid. Moreover, this treatment had done no good whatever. There was little in her general condition to excite suspicion except a tendency to gout. Finally, in desperation he had instructed her to use a powder-blower containing suprarenal extract. This was used at night, and gave prompt relief. After a few days of this treatment she recovered. This method of using the extract seemed to him the most efficient, except in those individuals to whom the powder was irritating.

Dr. Lederman said, regarding the irritation produced by powdered suprarenal extract, that he had induced in a medical friend by this application a most profuse and irritating nasal discharge, which had lasted for forty-eight hours and had been associated with a temperature of 101° F. When it was administered internally, it should be combined with some stimulant to avoid cardiac depression.

Dr. Myles said he had been using the powder for about three years, and had met with only few cases exhibiting this irritative action, probably not more than one in twenty or thirty. There were such persons, however, and the effect on them was certainly dreadful. He had often thought that the constitutional and local effect of this remedy might be influenced by the individual's suprarenal gland. He usually tested the particular case by applying powdered suprarenal extract with a swab to the turbinal. If it whitened the part quickly, the result of such treatment would usually be found satisfactory.

Dr. Berens expressed regret that the diagnosis had not been brought out more clearly. He had been astonished to learn from the discussion that nasal hydrorrhœa was so frequent and that it was such a curable disease. A distinguishing point between nasal hydrorrhœa and a discharge of cerebrospinal fluid was in the reduction of sugar. The digitalin had been administered in his cases merely to increase the general tone.

Nasal and Postnasal Synechia.—Dr. Price Brown, of Toronto, read this paper. Attention was directed to the fact that a not insignificant proportion of these cases had their origin in measures carried out by rhinologists. The most frequent seat of synechia was between the middle turbinal and the sæptum, and the next most frequent between the inferior turbinal and the sæptum, but it might also occur between the inferior turbinal and the external wall or between the two turbinal bodies. Most synechiæ were of a fibrous character, the result of union of abraded surfaces. The predisposition to the formation of such bands might be congenital, but the exciting cause was a direct or indirect traumatism. By indirect traumatism he meant simple abrasion of the surface by forcible blowing or abrasion of the surface in other ways. By direct trumatism was meant physical injury, either surgical or accidental. The use of the galvanocautery was perhaps the most frequent cause, though he was not one of those who shared in the fashionable wholesale condemnation of the electrocautery. The reasons why this cautery so often produced synechiæ were: 1. The heating of the opposite wall by the cautery. 2. The tendency for œdema to occur after its use. Another cause was hypertrophy of the middle turbinal, and the union of the abraded and congested contiguous parts, followed by shrinkage of the turbinal body, the connecting or ligamentous link remaining intact. In the posterior pharynx the pathology and ætiology were quite similar to what they were in the nasal cavities. The synechiæ here were almost invariably fibrous. Careless or ineffectual removal of adenoids might readily cause these synechiæ. The most frequent cause in the nasopharynx was, in his opinion, indirect traumatism. He had found the saw the most useful instrument for osseous synechiæ. To keep the parts open he had used cotton wool tampons soaked in albolene, and liked this material much better than gauze. The parts were kept free from discharge by being sprayed with albolene two or three times a day. Where the space is small, and the synechiæ likewise small, a small sharp hook could be used to sever and remove them. The tampons should be allowed to remain undisturbed for two or three days. Absorbent cotton could be kept in the nose for a week or ten days without becoming offensive if sprays of one of the hydrocarbon oils were employed.

Nasal Synechia.—Dr. M. D. Lederman, of New York, also read a paper on this subject. He divided nasal adhesions into congenital and acquired, and the latter into catarrhal, traumatic, and those resulting from disease of an infectious nature. Myles had recorded a case of the congenital variety in which the trouble had been in the posterior third of the nasal cavity; also a case in which the synechia extended from the middle turbinal down to the floor of the nose and backward from the vestibule along the nasal floor. In the acquired form, catarrhal disturbances of the mucous membrane probably accounted for those cases in which the nose had escaped mechanical or chemical irritation. If there was a tendency to repeated engorgement of the turbinal, one could easily imagine how a connecting band might form and how it might exist without causing much discomfort. The cases most frequently seen were those resulting from the use of the cautery or the application of various chemical agents. In catarrhal cases, before an operation, benefit might be derived from the use of the cinchonidine group, or by the use of some modification of Lugol's solution, followed, if necessary, by a mentholated benzoinal spray. It should not be forgotten that lithæmic subjects reacted badly to the use of the cautery. For some time the author had adopted Gleitsmann's suggestion to rub trichloracetic acid into the cautery wound, and when this was done there was usually less reaction. The method of removing the turbinal obstruction before dealing with the sæptum was of service in some instances. For keeping the surfaces apart he found surgical sponge, or "punk," of the soft, elastic variety, a useful material. He had been in the habit of covering the nasal plug with nosophene powder. Care must be taken not to bruise the tissues when introducing the plug, as in this way synechiæ might be produced. The more rapid the healing process the less the liability to secondary occlusion. When the subjective symptoms were not pronounced, it was well to leave the nose alone except for the use of some antiseptic spray. Roe had found that adhesions were not apt to appear if one side only was touched with the galvanocautery in cutting away the band. The extensive removal of the surrounding structures was to be deprecated. A small sheet of celluloid would be found useful as a nasal separator. Some operators preferred the use of hard-rubber perforated drainage tube, which could be bent to the proper shape by immersion in hot water. Bernay's sponge had recently secured many advocates for this purpose, but he had found the surgical punk entirely satisfactory. If the adhesions were extensive and osseous, the chisel and rongeur might be required, and the after-treatment must be long and persistent in order to prevent union of the opposing surfaces.

Dr. Sargent F. Snow believed, with Dr. Brown, that the galvanocautery had its uses, although it had been greatly abused. In his opinion, there were almost unquestionably two elements engaged in the production of nasal synechia—a bulged or thickened sæptum, lessening the normal space, and an engorged turbinate. If the sæptal deformities were removed, the result would be good, but in some cases it was difficult to make their removal thorough. In cases in which there was not too much deflection he was in the habit of turning up the membrane, making a three-cornered flap, and cutting out a portion of the cartilage. Myles's cutting forceps would be found useful for this purpose. By taking out a little button-hole from the cartilage and turning the flap down he had secured the desired space without interfering with the integrity of the sæptum. An engorged turbinate was the result of a local irritant or of some systemic disturbance. In treating these cases it was his custom to advise the patient to take more exercise and to give remedies which stimulated the activity of the liver. He never used orthopædic appliances in the nasal cavities with the exception, in rare instances, of a plug to control hæmorrhage. Since he had given attention to the general health, securing sufficient space and avoiding irritative treatment, his results had been decidedly better.

Dr. J. A. Stucky, of Lexington, Ky., asked if either of the essayists had noticed marked constitutional disturbance following the operation for the removal of synechiæ. In his practice there had been more constitutional disturbance following this procedure than after almost any other nasal operation. So marked was this reaction that he seldom operated in these cases now unless in a hospital.

Dr. Frederick C. Cobb, of Boston, said that he had made use of all sorts of splints in these troublesome cases, and had finally come to the conclusion that synechiæ were the result of the surfaces being too close to each other; hence the obvious indication was to separate them. Even in the case of ligamentous synechiæ, if one took a trephine cutting on both sides, and used it once, it was only necessary to pass a probe at intervals of a few days to secure a good result without recurrence.

Dr. George L. Richards said that for small synechiæ he had been in the habit of using a Teat cutting forceps with rather wide blades. The most satisfactory synechiæ to treat were those in which sufficient space could be secured by the first operation without resorting to orthopædic appliances, as stated by Dr. Snow.

Dr. Frederick T. Rogers, of Providence, referred to a method that had given him much satisfaction. A fresh piece of egg membrane could be placed between the raw surfaces for a period of five days without causing any offensive discharge. It was useful in ulcer cases.

Dr. L. C. Cline said he could not recall having seen a single case of synechiæ which he could attribute to the galvanocautery, and he thought the criticisms directed against the use of this instrument were unnecessarily harsh. He believed that when one operated enough of the turbinal body or sæptum should be removed to give sufficient space. The application of chromic acid or of nitrate of silver should be sufficient if the space was made large enough at the time of the operation.

Dr. Joseph A. White, of Richmond, Va., said that as long as he could get an instrument above the synechia it was always possible to get it below, and that then he had no trouble in removing sufficient tissue. By subsequent packing or by the introduction of the gutta percha tissue employed by dentists the parts could be kept apart. This latter material was better than celluloid because it could be readily moulded, and it was equally clean. The cases that particularly worried him were those with dense, osseous adhesions high up between the middle turbinal and the ethmoid plate. He had known them to be of almost ivory-like density, so that the electric saw had failed to cut through them. He was not disposed to cut from below, for fear of doing damage. He had made use of the burr and drill many times, but the osseous band seemed to keep building up until a thick bony mass had formed.

Dr. Myles said that several years ago he had reported to the American Otological Society a number of cases of synechiæ of the Eustachian tube to the basilar process. The operation, when done with the finger, was often most satisfactory in its results. It was easily performed under cocaine anæsthesia, using the index finger. It had been his misfortune to meet with several cases of synechiæ in the nose resulting either from syphilis or from active and persistent efforts on the part of rhinologists to plow through, or saw out parts of the ethmoid bone and of the middle turbinal. He had seen more or less complete adhesion of the ethmoid bone to the sæptum. One might cut away the ethmoid bone up to the cribriform plate, when attempting to relieve the condition, and yet the result would not be good. These patients were almost invariably neurasthenic and disposed to complain. The blocking up of the secretions left these patients in almost a state of constant suffering. With regard to synechiæ of the inferior turbinal, the point was to separate the parts sufficiently, either by excision or by moving the walls. One naturally desired to move the sæptum far enough away, but the vomer was an obstacle.

Dr. Emma Musson, of Philadelphia, said that Dr. H. B. Douglass has recently shown that the galvanocautery point should be used at a dull red heat until it had penetrated beyond the epithelial and hyaline membranes, as microscopic examination had shown that the cautery was peculiarly destructive to the hyaline membrane, and unless this precaution was observed we should have as a result a broad superficial cicatrix. Might not this extensive destruction of the epithelium and hyaline membrane account for some of the cases of nasal synechiæ?

Dr. Brown laid great stress on the importance of leaving the plug in the nose undisturbed for a considerable period. He preferred cotton wool and made the plug very small. In the upper region it was highly important to keep the mucous membrane in a normal state. One advantage of the rubber sheeting was that it was elastic and after having been placed in position exerted constant outward pressure. He had not observed any special systemic disturbance in these cases, probably because he was careful to employ a very small plug, and so not interfere with drainage. Whenever there was a narrow passage it was desirable to avoid entirely the use of the galvanocautery. Whenever a tampon was used and retained in position for any length of time, it was important to keep the case under observation, and to insist on regular cleansing above and below the plug.

Dr. Lederman said there could be no doubt about the tendency of the osseous synechiæ in the upper region to reunite, and attempts to treat them were not free from danger. It was here that constitutional disturbance was apt to occur. If he found a puffy turbinate and much catarrhal secretion, he postponed an operation until the mucous membrane could be made more healthy. Many authorities made use of Warburg's tincture as a general tonic in such cases.

(To be continued.)

Book Notices.

Surgical Anatomy. A Treatise on Human Anatomy in its Application to the Practice of Medicine and Surgery. By John B. Deaver, M. D., Surgeon-in-chief to the German Hospital, Philadelphia. In Three Volumes. Illustrated by about Four Hundred Plates, nearly all Drawn for this Work from Original Dissections. Volume II. Neck; Mouth; Pharynx; Larynx; Nose; Orbit; Eyeball; Organ of Hearing; Brain; Male Perinæum; Female Perinæum. Philadelphia: P. Blakiston's Son & Co., 1900. Pp. xii--17 to 709.

The second volume of this extremely valuable work, besides being a clear and succinct treatise on the descriptive anatomy of the regions discussed, gives many useful hints on the surgical affections more commonly met with. Much space is devoted to the surface markings as indicative of the deeper structures lying beneath. The ligation of arteries is fully considered, and the descriptive text is illustrated with numerous full-page plates picturing the anatomical relations of the arteries to the surrounding structures, and, lastly, we find a full description and drawings of the collateral circulation which is likely to be established after ligation.

The minute and exact anatomy of the organs of special sense, including the nose, throat, and ear, will be found of great value to the specialist as well as the general surgeon. These plates are especially well prepared and will materially assist the reader in a quick and ready understanding of these intricate regions. The sections on the descriptive and surgical anatomy of both the male and female perinæum are also most instructive. The author thinks the dependent position and poor blood supply of the ischiorectal fossæ explains the frequent occurrence of abscesses in them, but we are inclined to think that the close proximity of the rectum is a more important matter.

The Treatment of Fractures. By Charles Locke Scudder, M. D., Surgeon to the Massachusetts General Hospital, Out-patient Department, etc. Assisted by Frederick J. Cotton, M. D. With Five Hundred and Eighty-five Illustrations. Philadelphia: W. B. Saunders, 1900. Pp. 9 to 433.

In his preface the author attributes recent advances in the treatment of fractures to the general adoption of more exact methods of diagnosis, including the use of the Röntgen ray and the more general employment of anæsthetics, resulting in a more perfect knowledge of the pathological conditions existing in the original injury. We are happy to note the simplicity of the treatment advised. Cumbersome apparatus and unnecessary mechanical devices are not mentioned, and we do not find a long list of special splints for individual fractures, as in so many of our text-books. The author has wisely adopted the expressions *closed* and *open* fractures in place of simple and compound. The latter terms are so often attended with confusion as to call for the use of more definite expressions.

The routine practice of cutting down on all fractures of the vertebræ is discouraged. As the writer correctly teaches, radical measures should be adopted only when the paretic symptoms are demonstrated to be due to pressure without destruction of the cord. Where destruction is complete, as manifested by absolute loss of sensation and reflexes, the case is hopeless and beyond the reach of the surgeon. In fractures of the ribs, the reviewer is in the habit of using narrow strips of adhesive plaster which overlap one another, instead of a single piece, as described by the author. The former method will result in a more smoothly fitting bodice, especially if the patient is a muscular subject.

Among the many excellent chapters, none appears to us of greater interest than the one descriptive of fractures of the lower end of the radius. The diagnostic points are first carefully considered, including the anatomical relationship of the wrist joint. Special attention has been given to the fact that the lower end of the styloid process of the radius is nearer the hand than that of the ulna, which relationship is changed after the usual fracture, a fact too seldom spoken of. But few works devote sufficient attention and care to the subject of Colles's fracture to materially assist the student in the proper reduction of the deformity. The present work covers the ground admirably, and would enable him to treat these conditions successfully, even without previous clinical experience. The text is excellent and the illustrations are accurate. The author suggests but two forms of splints for fractures of the lower end of the radius, lateral splints and the plaster-of-Paris bandage, and they are quite enough.

This treatise expresses the ideas of a clear-thinking worker in a most interesting field of surgery, and its mechanical appearance is most creditable to the publisher.

Diseases of the Chest, Throat, and Nasal Cavities. Including Physical Diagnosis and Diseases of the Lungs, Mediastinum, Heart, and Aorta, Laryngology and Diseases of the Larynx, Pharynx, and Nose, and Special Diseases of the Thyreoid Gland and Œsophagus. By E. FLETCHER INGALS, A. M., M. D., Professor of Diseases of the Chest, Throat, and Nose, Rush Medical College (in affiliation with the University of Chicago), etc. Fourth Edition. With Two Hundred and Fifty-five Illustrations. New York: William Wood & Co., 1900. Pp. xxi--3 to 765.

PROBABLY few text-books offered to American practitioners and students cover so much ground and cover it so well as this one does. The author's large experience is here placed at the disposal of his colleagues. His pages also show that he has kept abreast of the knowledge of what has been done by others. In every sense, the work is thoroughly up to date.

The first eleven chapters are devoted to physical diagnosis and pulmonary diseases. The illustrations give the student a very clear idea of the physics of this class of affections, and tables of distinctive diagnosis are used with good effect. Chapter xii is devoted to diseases of the mediastinum, including those of the thymus, acute and chronic mediastinitis, tuberculosis of the mediastinal glands, and tumors of this region.

Chapters xiii to xvii, inclusive, treat of cardiac diseases. Chapters xviii to xxiv discuss the general principles of rhinology and laryngology, including methods of examination and, in detail, the various affections of the fauces and pharynx. Chapters xxv to xxxi, inclusive, treat of laryngeal diseases. Chapters xxxii to xxxviii, inclusive, discuss the various maladies of the nose and accessory cavities, while the final chapter is devoted to special diseases of the thyreoid gland and the œsophagus.

It will be seen that the work covers a much wider range than the usual text-book. By avoiding discussion of moot points (which is all right in its place) the author has succeeded in condensing a vast amount of information within the limits of a handy volume. It is essentially a clinical book, and the fact that it has reached a fourth edition shows that our estimate of its value and of the appreciation it has received is not an extravagant one. Dr. Ingals is always a clear writer, and his pages bear the stamp alike of extensive reading, close observation, wide experience, and the ability to put things in a terse form. The book is a credit both to him and to American medical literature.

BOOKS, ETC., RECEIVED.

Practical Uranalysis and Urinary Diagnosis. A Manual for the Use of Physicians, Surgeons, and Students. By Charles W. Purdy, LL. D., M. D., Queen's University, Fellow of the Royal College of Physicians and Surgeons, Kingston, etc. Fifth Revised and Enlarged Edition. With Numerous Illustrations, including Photo-engravings and Colored Plates. Philadelphia, New York, and Chicago: F. A. Davis Company, 1900. Pp. xvi-392. [Price, $3.]

An Inquiry into the Conditions Relating to the Water Supply of the City of New York. By the Merchants' Association of New York. August, 1900.

The Medical Directory of New York, New Jersey, and Connecticut. Published by the New York State Medical Association. Volume II. 1900.

Sixth International Otological Congress, London, August 8 to 12, 1898. Transactions Edited under the Direction of the Editorial Committee, by E. Cresswell Baber, Honorable Secretary-General.

Forty-fourth Annual Report of the Health and Sanitary Condition of the Parish of St. Mary, Islington. 1899.

L'Année chirurgicale. Revue encyclopédique de chirurgie générale et spéciale. Publiée sous la direction du docteur A. Depage, Agrégé a l'Université libre de Bruxelles, etc. Deuxième année, 1899. Deuxième fascicule. Bruxelles: Henri Lamertin, 1900. Pp. 673-1465.

The Canal Question. An Address by John I. Platt at the State Commerce Convention, Syracuse, N. Y., June 6 and 7, 1900. (Reprinted from the *Poughkeepsie Daily Eagle.*)

Some Points in the Management of Obstetric Cases in Private Practice. By Joseph Brown Cooke, M. D. (Reprinted from the *Medical News.*)

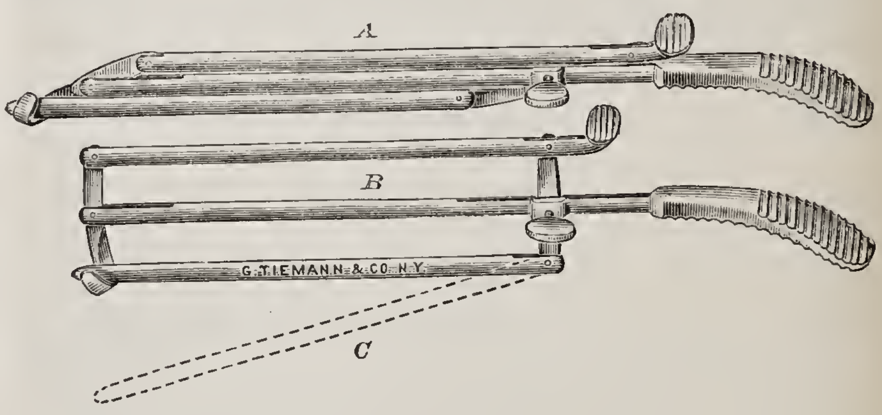
Chronic Lacunar Tonsillitis. By Charles E. Clark, M. D., of Kansas City. Read before the Jackson County Medical Society, June 8, 1899.

New Inventions, etc.

A NEW INTESTINAL CLAMP.

By J. S. WIGHT, M. D.

THE instrument is made up of three parallel bars. There is a central bar having a handle, which holds and controls the instrument. The two side bars are supported by two arms, which move in and out and move in a way to keep them parallel. The bar A has a thumbpiece, which is used to move the arms to and fro, at the same time that the parallel bars move to and fro. The bar C, when it is detached from its hook support, is made to perforate the mesentery near the intestine. Then it is adjusted to its hook. The intestine is now between the bars B and C, which are approximated to a sufficient extent to prevent the escape of fæcal matter when the viscera are cut in two. The degree of pressure can be controlled by the muscular sense of the surgeon. The bars which compress the intestine as they are approximated remain parallel and will cause a minimum of injury.



This instrument is made by Messrs. George Tiemann & Co., New York.

Miscellany.

Unidentified Epidemic Disease in New Bedford.—The daily press reports that a disease has become epidemic in New Bedford, Mass., which the Board of Health is unable to identify. The mysterious disease approximates both small-pox and chicken-pox in its characteristics but differs from both in essential particulars. A house-to-house inspection has been instituted.

Emergency Hospitals in Chicago.—The National Emergency Hospital Association of Chicago, which was organized and incorporated for the purpose of establishing emergency hospitals in all wards in which no hospitals are located, has had one of its hospitals in working operation for the past month at 85 Plymouth place, fifteen cases having been treated there during the month. The establishment is officially designated as City Hospital, Emergency, Ward No. 1. These emergency hospitals are intended to furnish prompt assistance in cases where danger is involved in the long time sometimes required to carry a patient to a hospital. The service being temporary in each case comparatively small quarters only will be required for each of these emergency stations. The hospital on Plymouth place was established and is being supported wholly by private subscription. It is hoped that the city authorities may eventually take up and adopt the scheme.

Philadelphia Public Baths Inspected.—The assistant medical inspectors of the Philadelphia Bureau of Health have inspected the nine public baths owned by the city, and state that a report that conjunctivitis had been spread through the agency of the baths is erroneous. Each of the nine baths maintained by the city, and the bath located at Sixth and Kater streets, was thoroughly inspected and found to be in a very satisfactory condition. Under the rules governing these baths, fresh water is constantly flowing from the city mains into these pools, which have from four to six outlets, and each pool is emptied and flushed with a fire hose three times a week and disinfected. In addition to this, every known precaution is taken by the superintendents to prevent children or adults who are suffering with a skin disease of any character from entering the baths. It is denied by the health authorities that there is an epidemic of inflammation of the eyes among children in the city.

Missouri School of the Blind.—Dr. J. Harvey Moore, a graduate of the Jefferson Medical College, class of 1882, and formerly of Atlanta, Ga., has been appointed surgeon to the Missouri School of the Blind. Dr. Moore also becomes a member of the Board of Managers, succeeding Dr. M. Hayward Post, whose term had expired.

Work of the Montreal General Hospital.—At the regular quarterly meeting of the Board of Governors of the Montreal General Hospital, held on August 21st, the report submitted by the medical superintendent showed that during the quarter 753 patients had been treated to a conclusion with a total of 65 deaths, of which 30 occurred within three days of the admission of the patient, making the death rate for the ordinary hospital cases five per cent.. During the quarter covered by the report the ambulance made 283 trips, and there were 9,900 consultations in the out-patient department. The receipts for the quarter had been $15,830 and the expenditures $19,984. The board passed resolutions to the effect that a well-equipped hospital for contagious diseases is needed in the city of Montreal. The Federal Government has agreed to increase the allowance paid the hospital for sick seamen from 90 cents to $1.20. Dr. Von Eberts' term of service as medical superintendent has been extended for another year, and on the 1st of September the outgoing resident staff will be replaced by Dr. Secord, Dr. Henry, Dr. Hill, Dr. Turner, Dr. Patton, Dr. Rowley, Dr. Murray, Dr. Grey, Dr. Hall, with Dr. Wilkins remaining for another term.

New Ward of the Lackawanna Hospital in Scranton.—The new "Children's Ward" of the Lackawanna Hospital, at Scranton, Pa., will be ready for occupancy within a month. The building is 42 feet 8 inches in height, from basement to roof, and extends 61 feet 8 inches on Mulberry street. It has a frontage of 34 feet and 8 inches on Franklin avenue. The entire building will be illuminated by gas and electric lights and splendidly ventilated, as there will be 27 ventilation outlets. Steam heat will be used in heating the building, direct and indirect heat being employed. All the expenses incurred in the erection of the new ward are being defrayed by a well-known lady of Scranton.

Grand Prizes Awarded at Paris.—Grand prizes have been awarded to the following American exhibitors at the Paris exposition: Hygiene—State board of health, Boston; board of health, Brookline; board of health, Cambridge; state board of health, Massachusetts; state board of health, Rhode Island; state board of health, Vermont. Charities and correction—Public charities, city of Boston; charities association, city of Boston; state board of charities, Massachusetts; lunacy commission, state of Massachusetts, Boston; Massachusetts general hospital, Boston; city hospital, Boston; hospital for aged couples, Boston; society for the assistance of children, Boston.

Trouble in the Detroit Board of Health.—Formal charges have been preferred by the Governor of Michigan against two members of the Detroit board of health, Dr. B. Howard Lawson and Dr. John L. Irwin. The charges state that the physicians in question have absented themselves from and refused to attend the meetings of the board of health, thus preventing the board from transacting any business on account of a lack of quorum. Both physicians are inclined to belittle the charges. Dr. Lawson resigned, but Dr. Irwin stated that he proposed to fight the matter out. Dr. Harry S. Kiskadden has been appointed by the Governor to fill the vacancy caused by the resignation of Dr. Lawson. There has been some disagreement as to the legality of the appointment of Dr. W. R. Baker as health officer, but the attorney-general has rendered an opinion favorable to Dr. Baker.

Bubonic Plague Cultures in Boston.—Dr. Hibbert P. Hill, bacteriologist to the Boston Board of Health, has examined two cultures taken from Chinamen in San Francisco who were supposed to be suffering from bubonic plague and has reported to the University of California, whence the cultures came, that in his opinion they were cultures of genuine bubonic plague. The cultures had originally been sent to Dr. Harris, of Johns Hopkins University, Baltimore, but he, being absent on his vacation, had them sent to Dr. Hill.

Sanitary Work in Puerto Rico.—Major George G. Groff, of the medical department of the United States Army, is president of the Superior Board of Health of Porto Rico and is also acting commissioner of education for the island. In a recent number of *The Independent* he reviews the results of the two years' work in the island, giving the following data concerning matters of sanitation. During the twenty-one months in which the island has been in the possession of the United States practically the whole population of the island has been vaccinated; 790,000 names are recorded with the Superior Board of Health as having submitted to this operation. Not a single death from small-pox has been reported to the board for the last eight months, and the disease seems to have disappeared, whereas eighteen months ago there were known to be 3,000 cases on the island. A permanent vaccine station has been established near San Juan and virus is distributed to each municipality free of expense twice every year. A pure food law of a stringent character and including in its operations the supervision of the purity of drugs has been put into force; a chemical laboratory has been established for the use of the board of health; the hospital for the insane has been enlarged; the lepers on the island have been segregated and Dr. Ashford, of the United States Army, has discovered the cause of anæmia, the scourge of the poor class. At present the death rate is very high, and while officially reported as being due to gastro-enteritis, the deaths are primarily due to starvation, the poorer natives being unable to support themselves in the present unsettled state of commerce.

Multiple Neuritis following Pneumonia.—At a meeting of the New York Neurological Society held on June 5th Dr. Lewis A. Conner showed a man forty-one years old who had come to the Hudson Street Hospital on the 7th of November with lobar pneumonia of five days' standing, with a typical history and physical signs. The consolidation involved the left upper and lower lobes, and ran a normal course up to the point of defervescence. Instead of clearing up at the end of the seventh or ninth day, although the temperature dropped, the consolidation remained, presenting the ordinary picture of delayed resolution for two weeks beyond the allotted time. During that time the patient gave no evidence of any other trouble. Just at the end of this period of consolidation, three weeks from the beginning of the attack of pneumonia, it was noticed that his legs were weak, that he had some discomfort in moving them, and that the extensors of the left arm were paretic. In the course of a week the following picture was developed: Extensive, almost complete, paresis of the extensors of the leg, the tibialis group and the peroneal muscles, and of the extensors of the left arm, with slight loss of power in the right arm. No anæsthesia. Some numbness of the tips of the fingers and an area of hyperæsthesia over the crest of the ilium on each side. Hardly any pain except the girdle sensation. Tenderness over the calves of the legs and over the arms very slight. The diaphragm was not moving properly, and in about a week from the beginning of the symptoms of paralysis there was complete loss of function of the diaphragm, with either forced or natural respiration. It was a severe multiple neuritis which ran a course of five weeks before any improvement could be noticed. At the time he was shown the man could walk about and had recovered very largely the use of his left hand. It was six weeks from the time of disappearance of function in the diaphragm before the first contraction could be recognized. There was no history of syphilis or tuberculosis. The man had been accustomed to drink three or four glasses of beer or ale in the course of the day, and two or three times a week a glass of whisky. The picture had not been that of alcoholic neuritis, and the sensory symptoms had been no less marked than they usually are in these cases.

It is so Easy to be Wise after the Event.—The *Polyclinic* for August says that the late Sir George Burrows used to tell a good story of an old Duke of Portland, long ago dead. Sir George had been attending a lady in the Duke's household, but had never met his Grace. One morning a missive was given to Sir George, which ran: "The Duke of Portland begs to hand to Sir George Burrows a prescription for dropsy which has long been in his family, thinking that it may be of use in Mrs. ——'s case." The reply was as follows: "Sir George Burrows begs to thank the Duke of Portland for the prescription he has so kindly sent; Mrs. —— is, however, now well rid of her dropsy, but she still has organic disease of the heart, and if his Grace has a remedy which will cure her of that, Sir George will be thankful for the prescription."

In like tone, says the *Polyclinic,* it might have been quite fair had Lord Lansdowne thanked Sir W. Foster for the remedy (his own supervision) which he had suggested would, had it been duly adopted, have prevented the overcrowding of the Bloemfontein hospitals. That evil had now, however, ceased to exist, but there remained the possibility that in future wars the enemy might break bridges, destroy railway lines, and in various other ways make it difficult to send up medical supplies. If Sir Walter knew of a panacea against such contingencies Lord Lansdowne might have admitted that he would be glad to be informed of it.

Professor Osler has, according to the *Polyclinic* for August, become a vice-president of the London Medical Graduates College.

The Government Hospital for the Insane.—The United States Civil Service Commission announces that on October 23 and 24, 1900, an examination will be held in any city in the United States where it has a local board of examiners for the position of assistant physician, senior grade, Government Hospital for the Insane, Washington, D. C. The examination will consist of the subjects mentioned below, which will be weighted as follows:

Subjects.	Weights.
1. Letter-writing	5
2. Anatomy and physiology	5
3. General and special pathology	20
4. Obstetrics and gynæcology	10
5. Surgery	10
6. Chemistry, materia medica, and therapeutics	10
7. Bacteriology and hygiene	15
8. Mental diseases	25
Total	100

The examination will be divided as follows: First day, eight hours, first four subjects; second day, eight hours, remaining four subjects.

The department states that it desires eligibles who have had at least five years' actual experience in a hospital or institution for the treatment of the insane. The age limit is twenty years or over. From the male eligibles resulting from this examination certification will be made to the position of assistant physician, senior grade, in the Government Hospital for the Insane, Washington, D. C., at a salary of $1,200 per annum.

This examination is open to all citizens of the United States who are graduates of reputable medical colleges and who comply with the requirements. All such persons are invited to apply, and applicants will be examined, graded, and certified with entire impartiality and wholly without regard to any consideration save their ability as shown by the grade attained in the examination. Persons who desire to compete should at once apply to the United Civil Service Commission, Washington, D. C., for application forms 304 and 375, which should be properly executed and promptly filed with the commission.

THE NEW YORK MEDICAL JOURNAL, SEPTEMBER 15, 1900.

Original Communications.

THE TREATMENT OF
TUBERCULOUS AND PURULENT JOINTS WITH LARGE-GLASS-SPECULUM DRAINAGE AND PURE CARBOLIC ACID, WITH A REPORT OF SEVENTY CASES.

By A. M. PHELPS, M. D.,

NEW YORK.

(*Concluded from page 368.*)

THE bugbear that interference with purulent or tuberculous foci will result in constitutional infection is not borne out by clinical observation. I have never seen it, and I do not believe it ever occurs. Now, all of the fifty per cent. of serious cases alluded to would at the time of incision, on account of the intelligent exploration of the joint by the surgeon, receive proper scientific care. We can see that the mortality would be diminished or done away with; that excisions, on account of extensive bone disease, the result of primary and secondary infection, would be avoided. Therefore I contend, and I contend without fear of successful contradiction—and it is sustained by clinic observation of over fifteen years in hundreds and I might add in thousands of suppurating joint diseases which I have observed—that in every one of these cases the joint should be at once intelligently explored. One swallow does not make a summer, and thirty-five cases of abscess of the hip selected and reported to the Academy of Medicine by Dr. Shaffer, and the occasional reporting of successful cases of abscess treated by aspiration, revived and recommended by Gibney, followed for years by myself and afterward discarded because the results were extremely unsatisfactory, should have no weight against the rational treatment of these abscesses based upon ætiology, pathology, surgical bacteriology, and clinical observation. The aspirator lulls the surgeon to sleep; he never knows whether he has aspirated an abscess due to a synovitis or one due to extensive bone disease with sequestra or a separation of the head of the bone from the neck, requiring an immediate excision.

Up to two years ago, it was extremely difficult to operate upon suppurating hips and prevent subsequent suppuration. But with the advent of the use of pure carbolic acid, as I reported at the last meeting of this congress, I have had no difficulty with such joints. The profession is indebted to Dr. Seneca D. Powell, of New York, for one of the most useful discoveries ever made in surgery. I allude to the antidotal effect of alcohol to pure carbolic acid. Powell has used carbolic acid for years in the treatment of infection and bone diseases in various parts of the body, and has recommended it for erysipelas and abscesses. I have tested it in the treatment of erysipelas, and find it is as much a specific for that disease as quinine is a specific for malarial poisoning. Observing his good results in bone and other abscesses, I applied it to joint abscesses. There should be absolutely no difference between the treatment of abscesses of a joint and that of abscesses occurring in any portion of bone or in soft parts. My observation during the past two years has demonstrated to me the correctness of this statement.

Now, we all know that pure carbolic acid cannot be absorbed. How is it that it acts beyond the area of disease? For instance, in erysipelas of the skin the deeper lymphatics are all involved. In hip-joint disease the bacteria have found their way into the lymphatics remote from the joint, and prior to my use of carbolic acid I frequently found abscesses appearing an inch or more from the field of operation. I can only explain it upon a theory, and that is that carbolic acid unites with the albumin of the tissues, forming an albuminoid or albuminate which is a powerful antiseptic. This new compound is absorbed into the lymphatics, destroying the bacteria. It must act in this way, because we observe in erysipelas that the temperature, six hours after its first application, frequently falls to normal. In hip-joint disease we observe after its application that the temperature may fall from 104 or 105° F. to 99 or 100° in twelve hours, and will not rise again unless other foci of disease develop.

Now, the method of its application is simply this: The abscess cavity is laid open. The opening into the capsule is found and enlarged and the joint explored. If there is extensive bone disease, the incision is lengthened and the capsule of the joint freely divided for half or two-thirds of its entire circumference, the head of the bone pulled out from the socket, the curette freely used, and the joint thoroughly irrigated with bichloride solution, one to one thousand.

The joint is now filled with pure carbolic acid. It is allowed to remain one minute by the watch, after which the joint is thoroughly washed out with pure alcohol, and finally the alcohol is washed away with a two-per-cent. solution of carbolic acid.

Instead of packing the wound or sewing it up, or introducing the collapsible rubber drainage tube, I use the largest glass tube that the cavity will take, which extends down to the joint and is just flush with the skin. This tube not only admits of perfect drainage, but enables the surgeon to see, day after day, just what is taking place in the joint. If further suppuration or extension of disease takes place, it is usually treated through this large glass tube by curetting and the use of carbolic acid and alcohol. Packing can be introduced through the tube to secure perfect drainage from the joint. These tubes vary in size from half an inch to two inches and a half, and they are of various lengths. A drainage tube for a small child should be about an inch in diameter. In other words, the glass tube is fitted to the parts, as large as they will take, and one can readily see the immense advantage the surgeon has day after day if he can examine the diseased area down to the very bottom of the joint. The tube is worn until granulations fill in from the bottom of the wound.

When it is not necessary to curette away pieces of dead bone or foci of disease in the neck or head, the wound can be closed with a smaller drainage tube. From nine to twelve pounds' extension is applied during the bed treatment, after which my splint and crutches are adjusted and the patient is sent home. I have also observed that where disease exists in the acetabulum, particularly if the head of the bone is involved, it is better to remove the great trochanter, because this bony prominence interferes with the drainage from the joint. Its removal in no way impairs the usefulness of the limb. If there is very extensive disease in the great trochanter, I invariably remove the head and neck and great trochanter, because I have observed that in the attempt to save these structures it is impossible to destroy the disease, which is sure to progress in the acetabulum. There have been some exceptions to this rule, but where it is so persistent I now perform a complete excision in such cases.

If the abscess has burrowed into the iliac fossa, I immediately detach Poupart's ligament from the anterior superior spinous process and the attachment of the abdominal muscles to the crest of the ilium sufficiently to allow of a free view of the iliac fossa. If the disease is extensive and the abscess extends back as far as the sacro-iliac synchondrosis, a drainage tube is put through from this point to the back.

Fig. 1 shows the exact size of the glass tubes and the lengths are 1, 1½, 2, 2½, 3, 3½, 4, 4½, 5, and 5½ inches.

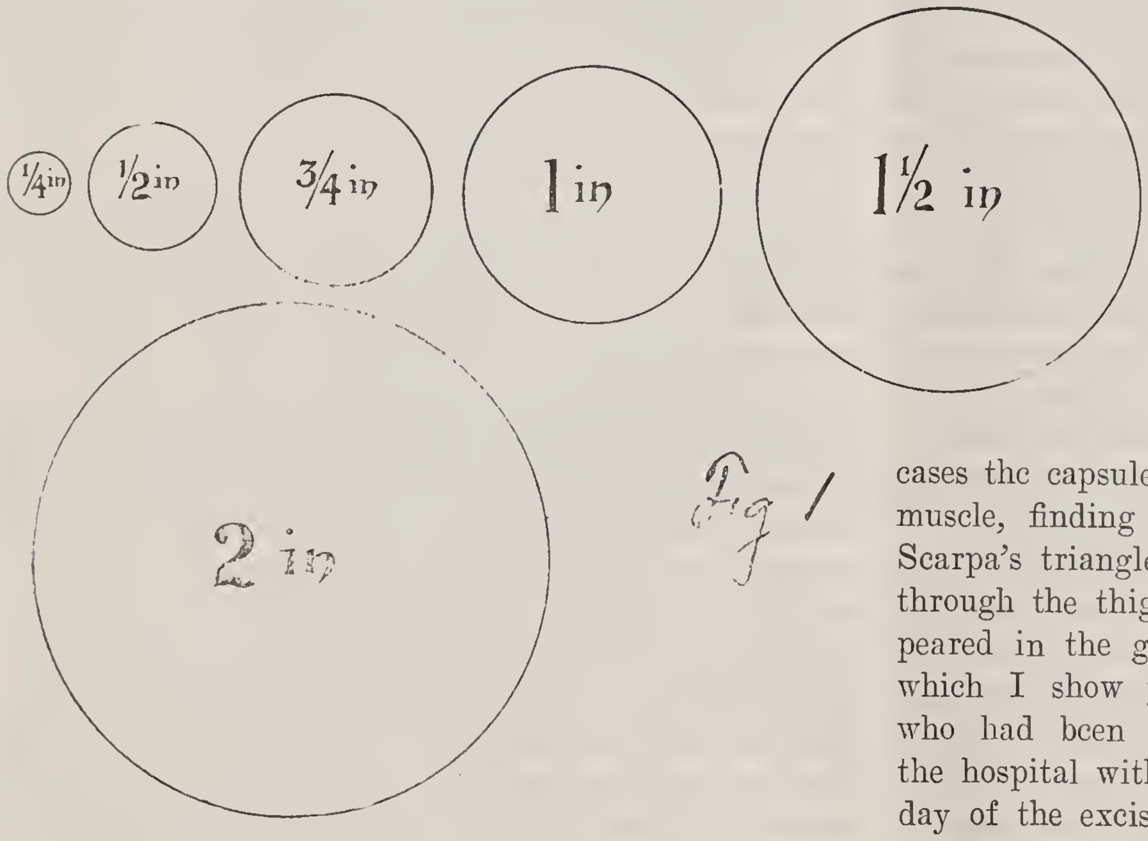
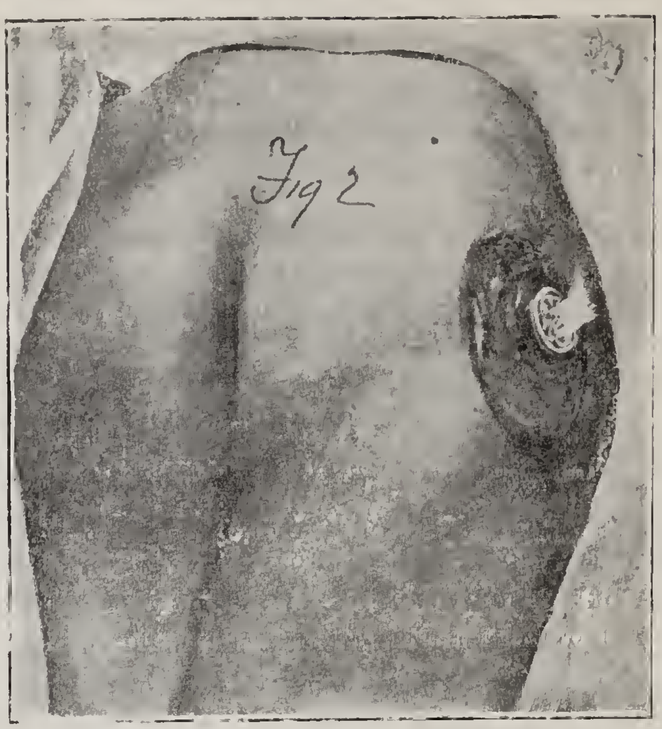


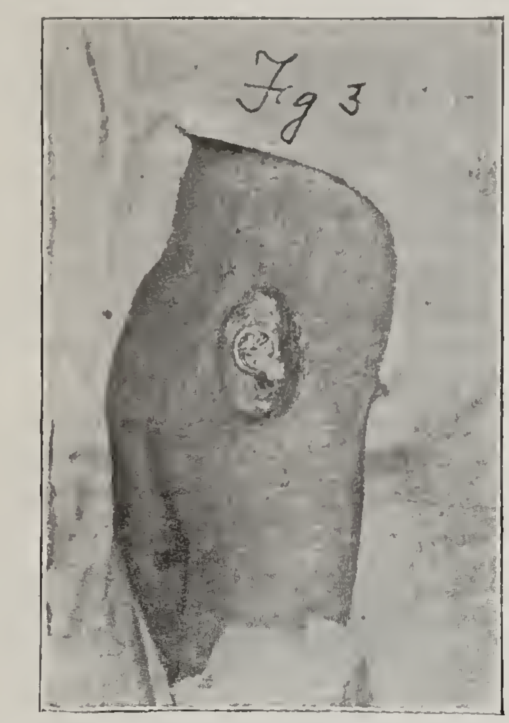
Fig 1

The largest tube is for an adult excision of the hip and 5 inches long. The 1 and 1½ inch tubes are for excisions in children and are about 3 inches long. The other sizes are used when joints are opened and not excised. Judgment must be exercised in selecting the tubes. Sterilize them in pure carbolic acid at the time of using them. Fig. 2 and Fig. 3 show the tubes in place and packed with gauze for drainage. This plan of packing avoids much suffering, as the packing is easily removed, and it secures perfect drainage. The tubes should be used in all bone operations. Two or more can be used, side by side, in long bone cavities. Rubber is filthy and easily collapses. The soft parts must be kept retracted with large tubes to afford perfect treatment of the bone cavity.



Now, in regard to results in the seventy operations which I have performed: In these seventy operations, in former years I should have performed at least fifty excisions. As it is, in the seventy operations I have performed twenty excisions. In all the other cases the joints have been freely opened and portions of bone and cartilage which were found dead in the joint removed in nearly every one. In fifteen of the cases the head of the bone was found separated from the neck and lying as a sequestrum in the joint. In thirty cases the disease was confined to the acetabulum, with some secondary infection of the neck of the bone. In twelve cases the abscess had burrowed into the iliac fossa, necessitating an operation there. In forty cases the capsule had ruptured anteriorly into the iliac muscle, finding its way into the iliac fossa or into Scarpa's triangle. In two cases the abscess had gone through the thigh from Scarpa's triangle and had appeared in the gluteal fold posteriorly, photographs of which I show you here (Fig. 2). Fifteen patients who had been subjected to excision of the hip left the hospital with their splints on four weeks from the day of the excision; three left the hospital at the end of two months; two required subsequent operations, and one of these left the hospital at the end of four months, and the other, with extensive disease of the pelvis, has been in the hospital five months and will be discharged within a week or two; and three more are reported as having been operated on last week. In all the cases requiring excisions or extensive bone operations the patients were discharged from the hospital in an average of three weeks from the time of the operation, wearing hip braces or using crutches. The wounds were firmly closed in all the cases, except those reported as not closed, and remain so.

When I compare these results with what I observed before I began the use of carbolic acid in the treatment of these joint suppurations, I am highly pleased. In certain hospitals, I am informed, the wards are filled with patients with suppurating hips, many of whom have been there for years. All such patients could be got up and out with hip splints and crutches in a few weeks at the most.



I am led, gentlemen, to speak thus positively because of the brilliant results and a desire to impress upon the orthopædic profession the principles which are accepted and taught in the surgical world. I believe that we, as orthopædic surgeons, have no right to violate established scientific surgical laws. I wish to say also that the carbolic acid is used simply as an agent. It is not a specific in joint disease. Thorough surgical work, with the auxiliary of carbolic acid, to my mind, will accomplish more in the cases under consideration than any other means with which I am familiar.

GENERALIZED TUBERCULOUS LYMPHADENITIS, WITH THE CLINICAL AND ANATOMICAL PICTURE OF PSEUDOLEUKÆMIA; THE STUDY OF A CASE.

FROM THE PATHOLOGICAL LABORATORY OF RUSH MEDICAL COLLEGE.)

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During the last few years there has been a growing tendency among writers and observers to look upon Hodgkin's disease as of infectious origin. The staphylococcus and streptococcus pyogenes, the pneumococcus, and various less well-known organisms have been found in the glands—sometimes before death and sometimes after—and often investigators have not hesitated to attribute to this or that organism the causative rôle.

During the last ten or twelve years cases have been described as pseudoleukæmia, agreeing clinically and showing after death lesions pointing to that disease, which careful investigation has proved to be tuberculous, thus establishing a form of tuberculous lymphadenitis so closely simulating pseudoleukæmia that the two conditions are often indistinguishable even at the post-mortem examination. Such cases have been reported by Weisshaupt (38), Troje (34), Brentano and Tangl (4), Cordua (5), Waetzoldt (37), Dietrich (10), Courmont, Tixier and Bonnet (6), Sternberg (31), and others.

The number of cases is yet small in which research has been carried far enough to remove all doubt as to their nature, though the frequency of such a special class of infectious lymphadenitis is in all probability much greater than has heretofore been supposed or than methods used until comparatively recently could demonstrate.

The actual occurrence of tuberculosis in lymphatic glands is not easily determined by mere anatomical inspection. It is often difficult to say, even with the aid of the microscope, whether a given glandular hyperplasia is tuberculous or non-tuberculous in its origin. The classified cell group is certainly not a necessary product of the tubercle bacillus in tissue; hence the histological appearance alone is not always reliable in diagnosis. When the organisms are scarce, it may be difficult or impossible to demonstrate them. The remaining resource is the inoculation of susceptible animals and beyond the verdict of that experiment we are at present not able to go. In the older cases we can draw but probable conclusions in the absence of such experiments and of bacteriological examination, and investigation is desirable concerning tuberculosis as a primary general glandular affection in and its relation to pseudoleukæmia.

This contribution is based upon a study of the following case, diagnosticated clinically and post-mortem as pseudoleukæmia, and upon a review of the more important literature of the subject.

John A., thirty-four years of age, a lumberman by occupation, was admitted to the service of Professor N. Senn at the Presbyterian Hospital of the city of Chicago, on February 14, 1898. The following brief clinical history is taken from the hospital records: His father is living and healthy; his mother died of an unknown cause at the age of forty-five. There are three healthy brothers and one sister living; two brothers and one sister died of unknown causes. The previous history of the patient is that of continuous good health. He never suffered from any serious illness or injury. He uses alcoholics moderately. The present disease began in August, 1897, with swelling low down in the right side of the neck behind the sternocleidomastoid muscle. Pain appeared in this region about December 25, 1897, with rapid enlargement and extension of the swelling to the right axillary. Up to the time of his admission about twenty pounds in weight have been lost. The bowels have been regular and no marked symptoms have been referable to any region. The only treatment was painting of the skin over the swelling with tincture of iodine.

Examination of the patient reveals a large swelling in the right side of the neck and a mass in the right axilla of the size of a hen's egg. The general nourishment is fair, the face pallid. The patient walks about the ward and all his muscular movements are free. (No mention is made of the chest, abdomen, or other parts of the body, and it is supposed that these regions gave normal physical findings.) Temperature 101.8° F., respiration 24, pulse 104. During his stay in the hospital the left cervical and axillary regions became the seats of tumor masses which underwent enlargement along with the masses present on his admission. The enlargement was not always progressive, sometimes a more or less marked diminution in size being noted. Measurements of the circumference of the neck are recorded, indicating a variation of more than two inches.

About the middle of May, 1898, the patient began to lose appetite and there was noted a decrease in the general nourishment. The morning temperature all through his early stay in the hospital was about normal, with an evening rise somewhat irregularly up to about 101.5° F. The pulse was usually about 100, ranging from 84 up and remaining above 120 after the 1st of March, 1899.

Up to the middle of March no abnormal findings in the urine are noted. About March 20, 1899, a profuse diarrhœa developed and lasted to the time of death, which occurred with high temperature and delirium on April 27, 1899.

A week or so before his death an examination of the blood was made by Dr. J. A. Capps. It showed a specific gravity of 1.052; hæmoglobin (Fleischl) 62 per cent.; red corpuscles, 4,320,000; leucocytes, 19,000. A differential count of 1,000 leucocytes gave the following results: Small uninuclear, 30 per cent.; large uninuclear, 2.5 per cent.; polymorphonuclear neutrophiles, 67 per cent.; eosinophiles, 0.5 per cent. There were no myelocytes, no nucleated reds, no polychromatism and only a very slight poikilocytosis.

The treatment consisted in the administration of Fowler's solution in increasing doses, given by the mouth and injected into the tumor in the right cervical region. From February 16, 1898, to April 9, 1898, fifteen minims of Coley's toxines were injected each morning into the tumor in the neck, the characteristic chill and slight temperature following each injection. An abscess was finally developed at the point of puncture. This was incised and healed slowly. No record of diminution in the size of the glands is recorded during this time. The patient received at various times elixir of iron, quinine, and strychnine, carbonate of iron, and various sedatives.

The post-mortem examination was made on April 28, 1899, twenty hours after death.

ANATOMICAL DIAGNOSIS.—Hyperplasia of the cervical, submaxillary, axillary, mediastinal, parabronchial, and retroperitoneal lymphatic glands; lymphoid nodules in the liver, spleen, and lung; obliterative fibrinoplastic peritonitis; left hydrothorax; right serofibrinous pleuritis; œdema of the lungs; bronchitis; cyst in the pelvic fascia; acute degenerative changes in the kidneys; chronic gastritis; beginning atheroma of the aorta; œdema of the ankles; general emaciation.

External Examination.—The body is that of a well-developed, poorly nourished young man. Rigor mortis is absent. There is post-mortem lividity of dependent parts, with well-marked œdema of the feet and ankles. There is an area of superficial necrosis over the left trochanter.

A large, lobulated swelling occupies either side of the neck, raising the lobe of the ear, extending upward into the parotid region, downward to the clavicle, and forward from the anterior border of the trapezius to meet the other in the median line beneath the symphysis mentis. Similar nodular masses occupy both axillary regions, lifting the outer borders of the pectoralis major muscles and reaching as low as the nipple in the midaxillary line. A puckered scar 1 by 1.5 ctm. in size occupies the most prominent part of the mass in the right side of the neck and in this region the skin is adherent to the deeper structures; in all other parts it is tense over the masses, but not adherent. The epitrochlear lymph nodes are not palpable. The inguinal nodes show no abnormal enlargement upon palpating through the intact skin. There are no palpable glands in the popliteal spaces.

Internal Examination.—The abdominal cavity is obliterated except for a small space in the pelvis, which contains about a pint of clear, rather thick fluid. Friable adhesions of a translucent gelatinous material bind the coils of intestine together, to the other abdominal viscera, and to the parietal peritonæum.

The pleural cavities each contain about 800 c. ctm. of straw colored fluid; that in the right side contains small flocculent masses of fibrin. There are fibrinous adhesions between the right lung and the diaphragm and between the posterior port of the lower lobe and the chest wall. A few firm, strand-like, fibrous bands of adhesion bind the left lung to the diaphragm and pericardium, and the right lung is similarly held to the posterior mediastinum.

The pericardial cavity contains about 60 c. ctm. of clear fluid. The pericardium is smooth and free from adhesions.

The tonsils, tongue, pharynx, larynx, œsophagus, trachea, and thyreoid gland show no changes.

The heart is of normal size and smooth externally. The cavities are empty; the endocardium and valves are smooth and of normal appearance. The myocardium is uniformly brownish red in color, and of moderate firmness. The papillary muscles show no increase of fibrous tissue.

Throughout the whole aorta and the beginning of the coronary arteries are scattered a few smooth, slightly raised opaque yellow areas in the intima.

The left lung is smooth externally except for a few torn adhesions. The interlobar fissure is partially obliterated by fibrous tissue. The lung crepitates throughout and is rather light and spongy. The cut surface is grayish red, and shows a moderate amount of blood and some œdema. There is mucopus in the bronchi. The peribronchial lymph glands are large and firm, and extend into the lung along the bronchi as tumor-like masses as large as walnuts. On section they are grayish yellow, with dark gray spots. Under the pleura of the middle of the lower lobe is a nodule 1 ctm. in diameter; it is firm and of a uniform yellowish color. The right lung answers to the description of the left with the addition of fibrinous flakes and dulling of the pleural luster over the surface of the lower lobe. No subpleural nodules are noted in this lung; and in no part of either lung are there areas of consolidation or evidence of old or recent tuberculosis.

The masses of lymphatic glands in the axillæ extend far back beneath the scapulæ, and are continuous beneath the clavicles with the large masses in the neck. The cervical chains extend downward along the sides of the œsophagus and trachea into the mediastinum, along the bronchi into the lungs and on down connecting with the retroperitoneal chain (Fig. 1). There is no enlargement in the glands of the retroperitoneal region below the promontory of the sacrum. Those above are large and firm. The individual glands are sharply circumscribed by fibrous capsules and rather loosely bound together by fibrous tissue; those underlying the scar in the right side of the neck are closely and firmly held by cicatricial tissue. They vary in size from that of a pea up to 7 ctm. in diameter, the largest being found in the axillary regions. They are firm in consistence. On section they are dry and show a grayish color with rather well defined, irregular, yellowish areas. These areas are not like those of ordinary caseation; they are firm and not easily disintegrated. Scraping the surface yields no fluid.

The liver is moderately enlarged. The capsule is uniformly roughened by torn friable adhesions. Beneath the capsule over the posterior parts of the upper surfaces of both lobes are several pea-sized firm nodules, which on section are seen to be of spheroidal shape and uniformly yellowish in color. A few similar nodules are embedded in the substance of the organ. The lobular markings are fairly distinct, the parenchyma is rather pale and opaque.

The spleen is much enlarged, extending below and to the right of the umbilicus. It is of firm consistency and distinctly nodular over its entire surface, the nodules being of lighter color than the surrounding substance. On section firm yellowish nodules, varying in size from 0.25 to 2 ctm. and of different shapes are seen to be scattered throughout the entire organ (Fig. 2). The lymph nodes at the hilus are much enlarged and resemble those already described.

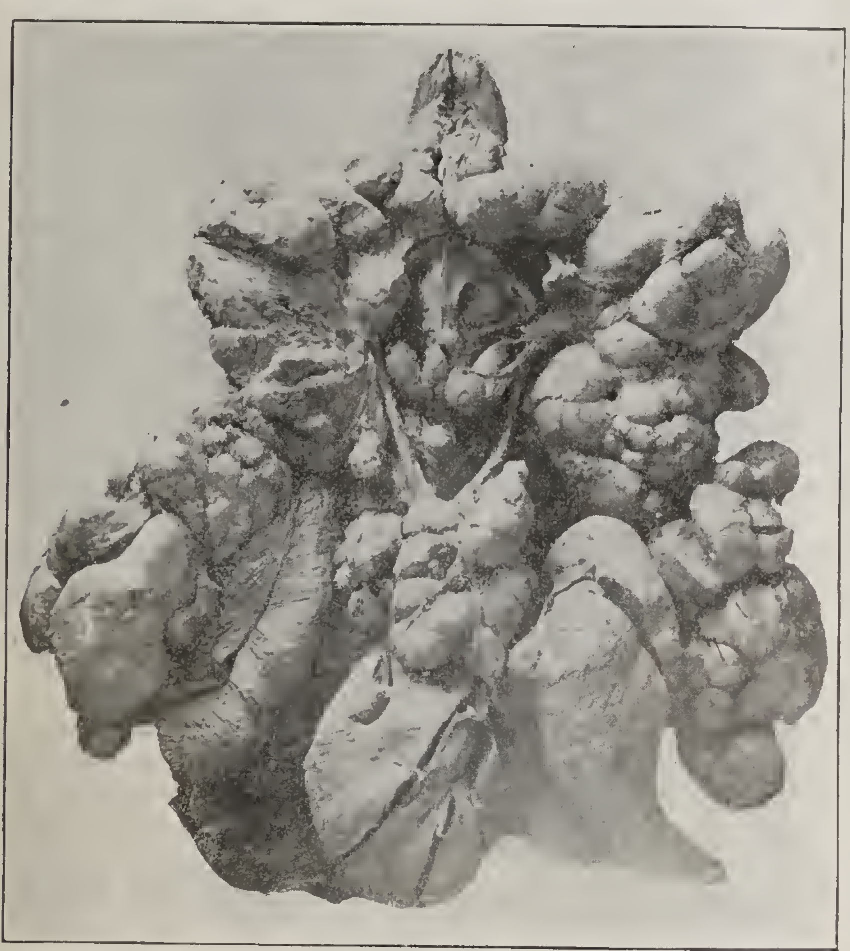

FIG. 1.—Anterior view of the organs of the neck and thorax, with the cervical axillary and mediastinal glands.

The pancreas shows no changes on the cut surface. It is surrounded by many large lymph glands.

The kidneys are rather large and of nearly equal size. They are surrounded by a large amount of fatty tissue in a condition of serous atrophy. The capsule is not adherent and strips from a smooth surface. The stellate veins are injected. The cortex is swollen, pale and its markings distinct. The pyramids are dark red. The mucous membrane of the pelvis is smooth and free from changes.

The suprarenals are of normal size. The surface is dark in color and studded over with pinhead-sized yellow nodules. The cut surface shows no changes.

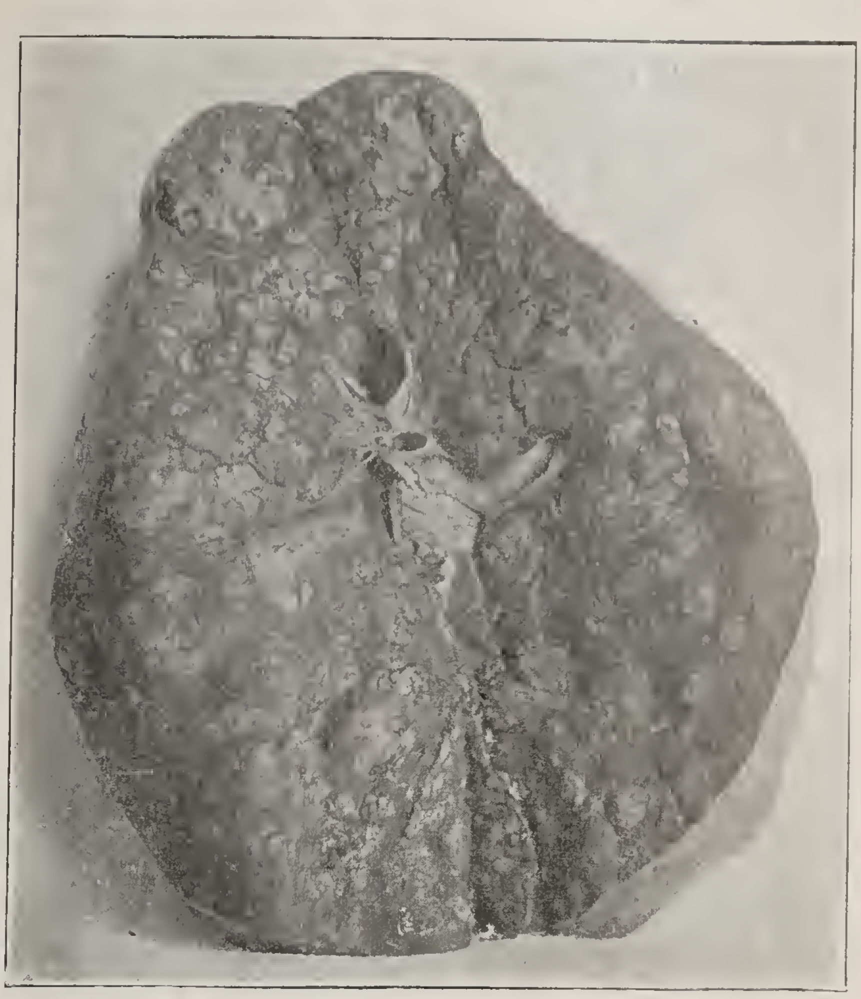

FIG. 2.– The cut surface of the spleen.

The mucous membrane of the stomach is smooth, but is covered by a thick coat of adherent grayish mucous. There are a few areas of submucous ecchymosis.

The mucosa of the large and small intestines is smooth and shows no changes to the naked eye. There is no enlargement of Peyer's patches nor the solitary follicles. A few of Peyer's patches near the cæcal valve present the "shaven beard" appearance. The vermiform appendix lies retrocæcal and is firmly adherent. Its mucosa is normal in appearance. The mesenteric lymphatic glands are moderately enlarged and firm. They resemble the enlarged glands of other regions.

Several ounces of turbid urine is found in the urinary bladder. The mucosa is smooth and the walls show no changes. Lying in the connective tissue to the left of the bladder is a smooth walled cavity containing an ounce of dark brown fluid. The prostate is not enlarged and on section shows no changes. The seminal vesicles and testicles are normal. The scalp, skull, brain and its membranes show no changes.

There is no evidence that death was produced by pressure of the enormous glands of the neck or chest upon the trachea, bronchi or great vessels.

Histological Examination.—Pieces of the spleen, liver, lung, kidney, stomach, ileum, colon, suprarenal, tonsil, and the cervical, axillary, and retroperitoneal lymphatic glands were fixed in alcohol containing four per cent. of formalin and sections cut from celloidin in the ordinary way. Sections were stained with hæmatoxylin and eosin, Van Giessen's method, methylene blue, polychrome methylene blue (alone and with neutral orcein) and with carbol-fuchsin differentiated to show tubercle bacilli.

Lymphatic Glands.—Sections from glands in all the groups examined show practically the same changes.

The capsule is moderately thickened and the cells are somewhat actively proliferating. The vessels are packed with red blood cells.

The usual picture of lymphatic gland is lost. Cortical and medullary portions cannot be distinguished and there are no recognizable remains of the germinal centres. The fibrous stroma is greatly increased and constitutes the larger part of the mass structure.

Under low power are seen irregularly distributed groups of closely packed, distinctly staining nuclei. These masses are poorly defined and merge gradually into the fibrous stroma. They have no definite relation to the remaining structure, and have circular, gyrate or no definite outline. In some places there is about an even mixture of connective tissue and distinct nuclei. Rather large, well-filled blood vessels with thick hyalin walls are visible in these areas.

Under high power the masses are seen to be composed of the cells one expects to find in a subacute inflammatory process. Mononuclear lymphocytes are present, but their number is greatly exceeded by polymorphonuclears, while the great mass is made up of young proliferating connective tissue cells. Scattered uniformly throughout is a noticeable amount of connective tissue fibres not to be considered "adult." In some areas practically all cells are well preserved; in others the nuclei of the connective tissue have not the usual sharp outline, and are for the most part decidedly granular, suggesting disintegration. This is not so evident in the leucocytes. Moreover, scattered between the cells are minute, deeply staining granules and globules which cause a somewhat blurred field. They are taken for fragments of nuclear tissue, and furnish further evidence of the karyorrhexis suggested by the granular condition and indefinite outline of the connective tissue nuclei. In still other areas it seems as if the whole mass of cells has undergone this disintegrating process and nothing is seen but a mass of irregular, deeply staining fragments with an occasional wandering leucocyte.

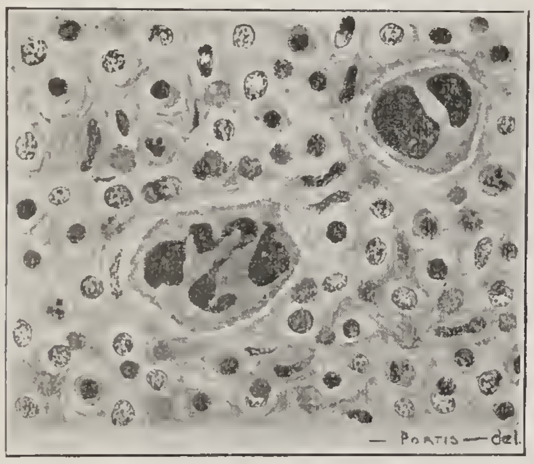

FIG. 3.- Section of a lymphatic gland. (Zeiss oil im. $\frac{1}{12}$, oc. 3).

The connective tissue in places where it predominates is of the adult type, and has for the most part nuclei which stain well. In certain fields, however, the nuclei stain poorly or are entirely absent, the remaining tissue being vacuolated and diffusely granular. Conditions of coagulation necrosis are simulated, and it is often difficult to say how many cells the tissue may have originally contained.

Plasma cells are present but they have no definite grouping, and are sparsely but diffusely scattered.

Giant cells are also present. They are smaller than the typical tuberculous giant cell and the nuclei are fewer and more densely stained. These are sometimes arranged peripherally but not usually so. They occur chiefly in the more dense cell masses. They are not surrounded by epithelioid cells, and no where make up a part of the typical tubercle.

Besides those which are here referred to as giant cells there is another, usually multinuclear cell, which is a conspicuous element of the microscopic picture, both in the densely cellular areas and in those where connective tissue predominates (Figs. 3, 4, 5). They occur most numerously, however, in the latter places. They are not seen in the granular necrotic areas. Typically they have from two to several nuclei (possibly as high as ten) which are characterized by their extremely dense stain with nuclear dyes and their peculiar inter-relations. The stain is so dense that no nuclear structure is visible, except occasionally where there are only two nuclei or a similar cell with a single nucleus. Here a lighter centre is sometimes apparent. A uninuclear cell of this type is mentioned because large cells are seen in the same areas whose single nucleus stains densely and does not resemble the nuclei of other mononuclear cells present. The binuclear cells have staining properties similar to the mononuclear, and the nuclei are usually concavo-convex with the concave surfaces facing, gonococcus-like (Fig. 3). In those containing more than two the nuclei often have a petiolate arrangement—the individual nuclei roughly triangular and arranged around a common centre, one angle of each pointing to the cell centre. Occasionally they resemble a knotted cord with communicating processes (Fig. 3). A concentric arrangement around the periphery is occasionally seen, and no sharp dividing line is possible between these cells and those that must be classed as true giant cells—the differences in form and staining qualities being those of degree rather than of kind. These cells are presumably of endothelial origin.

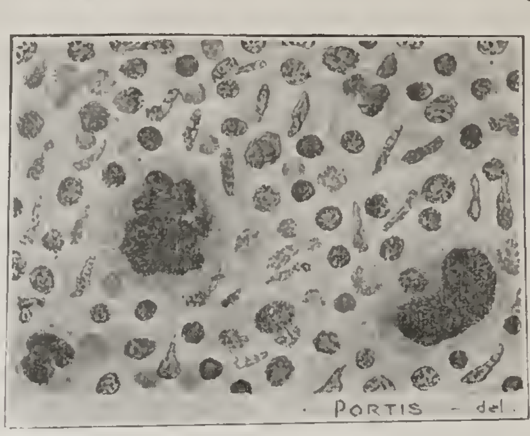

FIG. 4.—Section of lymphatic gland, showing multinuclear large cells. (Zeiss oil im. $\frac{1}{12}$, oc. 3).

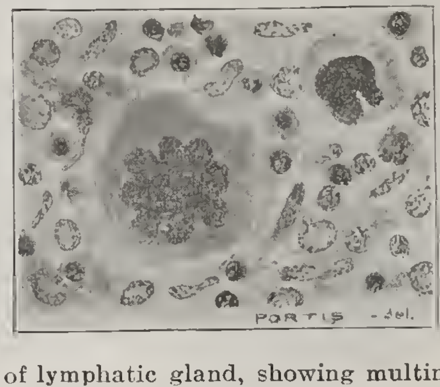

FIG. 5.—Section of lymphatic gland, showing multinuclear large cells. (Zeiss oil im. $\frac{1}{12}$, oc. 3).

Lung.—The alveoli are largely empty; some are filled with a homogeneous substance containing a few pale cells. In places there are dilated or collapsed spaces, and a few are ruptured into adjoining alveoli. The stroma is everywhere rather hypercellular. In certain small areas there are dense collections of deeply staining, small, round cells of the lymphoid type. These cells have mostly single round nuclei, but a few are elongated, irregular or polymorphonuclear. There is considerable perivascular coal pigment and the larger vessels are as a rule filled with red blood cells. The vessel walls are somewhat thickened.

The "lymphoid nodule" is made up of an aggregation of deeply staining cells supported by a connective tissue framework faintly resembling the alveolar arrangement in the lung (Fig. 6). In places the area is sharply marked off from the surrounding lung tissue; in others it blends rather freely. The vessels and stroma of this area appear to be those of the original lung substance, and the nodule not to be an entirely new formation. The cells making up the tissue are of various sizes and shapes. Small, round, and oval nuclei predominate, but there are many large, pale cells of the epithelioid type, small lymphocytes, and polymorphonuclear leucocytes. Scattered throughout are many cells containing two to six or eight deeply staining, centrally placed nuclei and having scanty protoplasm. These cells resemble the multinuclear cells of the lymphatic glands, and are presumably identical with them. In places there are granular cells and areas of advanced nuclear fragmentation. A limited amount of coal pigment is scattered throughout. Occupying the centre of the nodule is a small cyst which apparently represents the remains of a small bronchus. The histology of tubercle is not reproduced, and no giant cells of the tuberculous type are present.

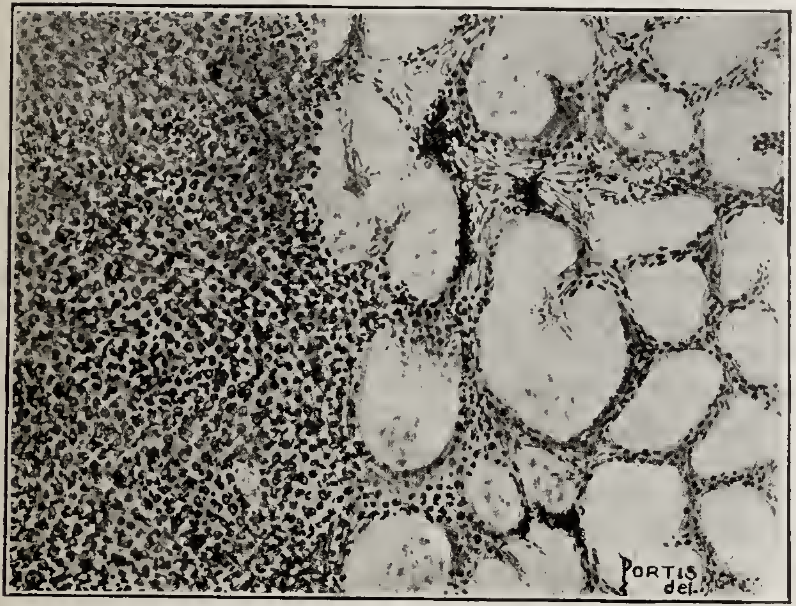

FIG. 6.—The margin of the "lymphoid nodule" in the lung.

Spleen.—The capsule is universally thickened and shows externally a fibro-granular and in some places an organized fibrous layer rich in young connective tissue cells. The connective tissue stroma is much increased. The vessel walls are irregularly thickened and most vessels are filled with blood cells. Certain areas present a heavy, coarse stroma of mature connective tissue enclosing congested blood spaces. The parenchyma is rather richly cellular. Areas staining deeply with nuclear dyes and made up of fragmented cells are seen which much resemble similar areas in the lymphatic glands. Numerous round or oval areas made up of well preserved round cells of the lymphoid type with some leucocytes are also present.

The small giant cells are fairly numerous in the better preserved districts, and the very dark staining multinuclear cells noted in the glands and lung are irregularly distributed. A greater proportion that must be classed as true giant cells are here present than in the glands, but they differ from those typical of tuberculosis in the same particulars. In a few places the histological tubercle is present (Fig. 7); but in general the structure is but little more suggestive of tuberculosis than is that of the lung or lymphatic glands.

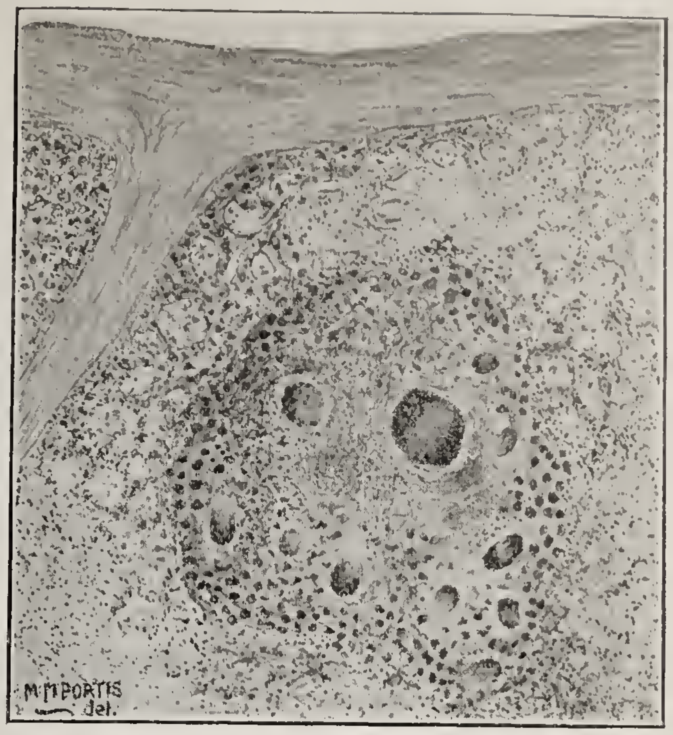

FIG. 7.—A tubercle in the spleen.

The cell areas, either those well preserved or the disintegrated ones, cannot be identified as remains or alterations of the Malpighian bodies.

Liver.—The interlobular connective tissue is moderately increased. It is largely of mature type, showing few nuclei. In places a mild diffuse interstitial proliferation is seen. Nothing abnormal is noted concerning the bile and blood vessels. For the most part the liver cell nuclei stain clearly and sharply with hæmatoxylin. In some places, however, they stain faintly and the cells present the appearance of mild cloudy swelling. This occurs more noticeably in the periphery of the lobules. Throughout a large part of the tissue are scattered oval faint blue granules, the size of cell nuclei, which are taken to be granules of glycogen.

Scattered throughout the parenchyma and its supporting tissue are a limited number of typical tubercles. In the smaller ones typical tuberculous giant cells are centrally placed, and the number of nuclei is sometimes very great. Others contain small caseous areas in the centre. The usual endothelial and connective tissue proliferation with numbers of round cells are also found. There are found also some small collections of round cells in the lobules hardly recognizable as tubercles—

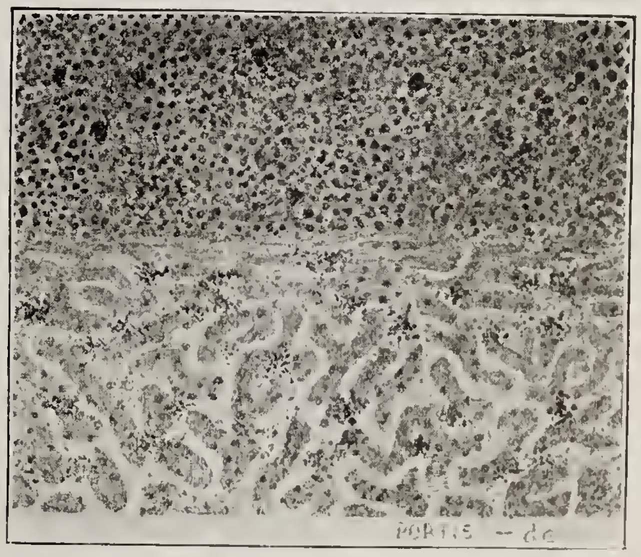

FIG. 8.—The margin of a "lymphoid nodule" in the liver.

corresponding to the so-called lymphoid tubercle. The largest tubercles—the bodies styled "lymphoid nodules" in the gross description—are sharply defined from the liver substance, the cells of which are compressed and distorted around the margins and separated from the tuberculous cell masses by a delicate connective tissue structure (Fig. 8). Throughout these tubercles are seen a large number of young blood vessels.

Besides the usual cells making up tubercle, including here small and large typical giant cells, there are seen certain cells of endothelial type with two to five nuclei. There is a sharply defined nuclear membrane to each, and the interior is clear except for minute points of chromatin. The cell body is relatively small and the protoplasm scanty. They are distinguished from ordinary giant cells by the smaller number, the large size and irregular contour of the nuclei. The stain is often very dark and evenly distributed, and no internal nuclear structure is visible. These cells correspond to those in the lymphatic glands and elsewhere, and the same interrelations of nuclei are noted.

A moderate number of plasma cells are found, particularly in the larger tubercles. They have no definite arrangement or distribution.

Kidney.—The capsule shows no changes. There is a well marked, cloudy swelling of the convoluted tubules with slight desquamation. The vessel walls are somewhat thickened. The interstitial connective tissue is slightly increased. Bowman's capsule is as a rule visible, but slightly thickened and the nuclei of its lining cells are numerous and prominent. The glomeruli are somewhat shrunken so as not entirely to fill the capsule and the intervening space is partly filled with a vacuolated detritus. They are rich in well stained nuclei. In a single place in the cortex there is a small area so densely filled with small, round mononuclear cells as to obscure the kidney structure. There are to be seen, however, remnants of destroyed tubules. No giant cells are visible. In the immediate neighborhood of this area the epithelial cells show the greatest degeneration noted in any part of the sections.

Small Intestine.—The mucosa is extremely atrophic, being represented only by a low stratum of fibrillated and granular substance densely packed with small, round cells and here and there the remains of a tubular gland. No semblance of villi remains. The cellular infiltration stops sharply at the submucosa, save in a few places, where there is likewise a round celled invasion of the submucous tissue. The muscular layer shows little change beyond a hypercellular stroma. The subserous layer is much thickened and the seat of many small collections of round cells, some of which contain central giant cells, and make up the microscopic picture of tubercle. Lying on the serous side of this coat are large, wavy, interlacing strands of a homogenous material representing the gelatinous exudate on the peritonæum. In places this is invaded by collections of round cells and leucocytes.

Large Intestine.—There is round celled infiltration of the mucosa, extending in places into the submucosa as small areas. The epithelial structure shows more or less superficial necrosis. The vessel walls are rather thick, and the connective tissue outside the muscular layer shows a condition of mucoid degeneration. The muscle coat is practically unchanged. Tubercles are not seen.

Stomach.—The mucosa is moderately infiltrated with round cells, and there is some epithelial degeneration. The subserous connective tissue is hypercellular, but there are no tubercles. The vessel walls show some thickening.

Suprarenal.—No pathological changes are noted. Separated from the main mass are several small oval areas of adrenal tissue.

Tonsils.—A moderate diffuse cellular hyperplasia is present, but there is no histological evidence of tuberculosis.

BACTERIOLOGICAL EXAMINATION.—Cultures made from the peritoneal fluid gave organisms corresponding in morphology and growth to the staphylococcus pyogenes aureus and albus. In the lung the staphylococcus pyogenes albus alone was found. No growth developed in tubes inoculated from the heart, liver, spleen and lymphatic gland.

Search for Tubercle Bacilli.—Tubercle bacilli, in every way typical, are found to be numerous in the cervical, retroperitoneal and axillary groups of lymphatic glands. They are seen chiefly in the richly cellular areas, lying in clumps and singly, sometimes apparently within but more often between the cells. None were seen in the multinuclear or giant cells.

In the liver they are found fairly numerous in the solitary tubercles and "lymphoid nodules."

They are found without difficulty in the giant cells and surrounding tissue of the spleen. They are also found in small numbers in the "lymphoid nodule" of the lung.

Many of the subserous tubercles of the small intestine contain large numbers of the organism. A long, rod-shaped bacillus and a large coccus, staining well with methylene blue, are found in the mucosa, but search for the tubercle bacillus here is negative. None are found in the kidney or in the tonsil.

INOCULATION EXPERIMENTS.—Shortly after the autopsy a piece of one of the larger retroperitoneal glands was introduced into the abdominal cavity of a guinea pig weighing 567 grammes. The gland was held in forceps and thoroughly seared in the Bunsen flame. It was then cut open with sterile scissors and a small cube cut from its central portion. This was inserted through an abdominal incision, pushed far away from the opening and the wound closed and sealed. The pig was found dead ten days later, and the body weighed 463 grammes.

Post-mortem examination revealed the wound sloughing and surrounded by infiltrated tissue. The piece of gland inserted was found deep in the abdomen, just beneath the stomach and adherent to the omentum and mesentery. It presented an appearance almost the same as at the time of inoculation, having undergone no disintegration. It is, however, somewhat more friable and of a more uniformly yellow color on section. The lymphatic glands in the region are slightly enlarged but otherwise unchanged. The abdominal cavity contains a small amount of blood-stained fluid, but there is no visible evidence of peritonitis. The organs do not show changes recognizable to the naked eye.

Histological examination finds the inserted gland necrotic and granular. It fails to take nuclear dyes. About the periphery are many small, round cells and leucocytes, which invade the surrounding adherent tissue, including the stomach wall. No histological evidence of tuberculosis is found in the lungs, liver, spleen, kidneys or the mesenteric and retroperitoneal lymphatic glands. Search for tubercle bacilli was not made.

A Gram-staining coccus is found in the peritoneal fluid and an unidentified bacillus in the heart's blood. Cultures from the various organs give no growth.

The animal evidently died from an acute infectious process non-tuberculous in its nature, and without the development of a general tuberculosis.

A second guinea pig, inoculated in the same manner, weighed 427 grammes. It was found dead seventeen days after the operation, and the body weighed at that time 269 grammes.

The wound is healed perfectly, and covered by a dry crust. The general peritoneal cavity shows no changes. Extending upward and to the left from the margin of the wound is an intraperitoneal mass, involving by adhesions the margin of the liver, loops of small intestine and the ventral abdominal wall. In the centre of this is a small cavity containing thick, yellow pus and the friable and degenerate tissue of the inoculated gland. This abscess lies at the costal arch. The piece of gland retains its original size and shape. The liver contains a mustard-seed-sized yellow nodule in its large right lobe; the lungs are congested and œdematous; the other organs are unaltered. The inguinal and axillary glands show a moderate enlargement which is symmetrical. The mesenteric and retroperitoneal glands appear to be normal.

There is no evidence of tuberculosis in the histological appearance of the lungs, liver (the yellow nodule is evidently an old inflammatory focus of questionable nature) spleen, kidneys, or the axillary and inguinal lymphatic glands of the left side.

The piece of gland inserted was sectioned with the stomach, intestine, liver and abdominal wall to which it is adjacent. The gland has become entirely necrotic and appears as a granular mass without nuclei. Its periphery stains deeply from the presence of many polymorphonuclear leucocytes, lymphocytes and nuclear fragments. All surrounding tissue is densely infiltrated with small, round cells, mostly having single nuclei. The adjoining abdominal wall contains a large mass of granulation tissue of varying density, composed mostly of small cells having single nuclei. It contains areas of necrosis and of nuclear fragmentation much resembling the structure of the original lymphatic gland. No giant cells or histological tubercles are found. Search for tubercle bacilli in this tissue gives negative results, but immense numbers of a small coccus, singly and in colonies, are found.

Here again it is evident that the animal died of an acute infectious process without the development of a general tuberculosis.

(*To be Concluded.*)

A CONSIDERATION OF THE
STATISTICS OF THE OPERATIONS
FOR THE RELIEF OF
MALIGNANT DISEASE OF THE LARYNX.*

By D. BRYSON DELAVAN, M. D.,

NEW YORK.

EVER since the historical case of 1888, of tragic memory, earnest efforts have been made in many different quarters to establish reliable and successful methods for the surgical management of malignant disease of the larynx.

Patients have been operated upon in various stages of the development of the growth, and several different methods of procedure have been employed. The work has been done by operators of accredited skill and experience in the field of general surgery, by highly expert and competent specialists, and, thirdly, by any one in general whose ambition prompted the attempt. Since 1873, when Watson published the history of the first laryngectomy, several hundred cases have been recorded in surgical literature. In how many instances the records of cases have not been published it is, of course, impossible to say. It is fair to infer that operations supposed to have resulted with any fair measure of so-called success have found their way into print. The unsuccessful cases, on the other hand, have been passed over in silence. The number of operators who have placed on record all of their cases, good and bad alike, is, unfortunately, very small. Several attempts have been made to collect the known cases and to draw from them such conclusions as their study might permit. Among the best of these have been the articles of Powers, Schmiegelow, Seudziak, and Wassermann. It is no lack of courtesy to say that none of them has been satisfactory, owing to the imperfect material with which each one has had to work. Being aware of the ability of these gentlemen, and knowing their unusual opportunities for the study of the subject, as well as the painstaking character of their work, the writer has approached the preparation of this paper with due respect, not only for its importance, but for the difficulties which have been made apparent by the experience of others as well as by his own long-continued observations. Two facts have constantly forced themselves upon him: first, that the statistical material at his command was identical with that repeatedly and unsatisfactorily used by others, and, secondly, that if any real advance was to be accomplished, it must be made largely in the future through the aid of scientifically complete reports of all cases operated upon. These two propositions have been vigorously advanced by him for so long a time and upon so many different occasions that he felt it most desirable that the present work be done in such a manner as to remove from it every possibility of prejudice or of personal bias. He accordingly secured the services of the best known and most expert professional medical statistician in New York, who made an exhaustive study of the material, including all of the best articles, brochures and works upon the subjects, and a large number of isolated cases from many different fields of surgical literature.

His report is made purely upon the merits of the material, upon mathematical principles, and by one who, not especially interested in the subject, has no personal opinions to formulate nor theories to prove. Its fairness is self-evident; its deductions, unfortunately, the same that have been forced upon every intelligent student of the subject. They may be summed up, briefly, in the following sweeping statement, namely: there are no statistics of operations for the surgical relief of malignant disease of the larynx. Nor can there be any, possessed of definite value or of conclusive weight, until a sufficient number of operators, of accredited standing in the surgical world, have been willing faithfully and fully to report in all of its details every case which they have had. While the failure to report unfavorable cases is the most serious difficulty met with, there are several other evils which stand in the way of the investigator and which have been recognized by all who have studied the subject.

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*Read before the American Laryngological Association at its twenty-second annual congress.

My collaborator says of them: "With regard to all statistics thus far published, they are not only too promiscuous, *i. e.*, representing an aggregation of isolated cases, with a tendency to the suppression of unfavorable results, but they are further untrustworthy by reason of confusion of cases, with resulting repetition, which tends to invalidate percentages. Thus Schmiegelow reports a considerable series of personal cases, but since he usually had a surgeon operate for him (Iverson, Studgaard, Saxtorph), the latter also gets credit for the case in some other statistics. Chiari's cases were operated on by Billroth, von Hacker and others, and in general this source of confusion is common. Again, the principal and assistants are often associated with the same case. Thus one of B. Fränkel's cases was also reported independently by his assistant, Scheinmann, and this source of confusion is common. Another source of error is found in the fact that the same patient often undergoes first an endolaryngeal operation, and later a thyreotomy or total extirpation of larynx. In this way numerous unsuccessful cases of endolaryngeal operation do not get into statistics, which contain the absurdly low number of thirty or thereabouts, although the number of isolated cases actually reported is considerably larger. A fourth source of error is the fact that there is no well-defined line of demarcation between the various forms of operation, such as thyreotomy with excision, etc., and partial resection. Different authors use different criteria. Some standard ought to be agreed upon."

In view of the writer's own experience in this matter, and of the views of his collaborator, expressed above, it appeared to be wiser to disregard former statistics in this article and to follow some plan by which the numerous sources of error might be avoided. The personal cases have therefore been collected of extensive operators of the highest standing, who appear to have reported all of their material, good and bad. Taking all who have reported ten or more cases, we have the summary (shown in Table 1), the figures in which refer to patients, and not to individual operations.

TABLE 1.

AUTHOR.	I. Total Laryngectomy.	II. Partial Laryngectomy.	III. Thyreotomy.	IV. Endolaryngeal operation.	V. Subhyoid pharyngotomy.	VI. Lateral pharyngotomy.	Total.
Bergmann	20	19	9	0	0	0	48
Kocher	7	6	7	0	1	0	21
Miculicz	2	2	8	0	0	1	13
Butlin	0	4	10	0	1	0	15
Fischer	3	7	0	0	0	0	10
Chiari	1	12	5	1	1	1	21
Schmiegelow	1	3	7	1	0	0	12
Semon	0	4	8	0	1	0	13
Fraenkel (and Scheinmann)	0	0	0	10	0	0	10
	34	57	54	12	4	2	163

By taking the cases of these men after a given period, say 1890, 1894, etc., it ought to be readily determined whether or not the chances of particular forms of intervention are improving.

A careful analysis of all the cases of these nine authorities, each fairly representing the best work of the time, is given in statistical tables 2 and 3.

TABLE 2.

CLASS No. I.—TOTAL EXTIRPATION.

OPERATOR.	Total cases.	Male.	Female.	Age.	Died from operation.	Survived operation.	Lived six months.	Lived one year.	Lived two years.	Well at over two years.	Died: pneumonia.	Died: recurrence.	Died: sepsis.	Died: exhaustion.	Died: accident.	Best record as to time.
v. Bergmann	20	17	3	57½	6	14	9	5	3	3	5	5	2	1	2	6½, 3, 2½ years.
Kocher	7	7	0	57 4/7	1	6	5	2	1	0	1	4	0	1	0	
Miculicz	2	2	0	47½	0	2	1	0	0	0	0	2	0	0	0	
Fischer	3	2	1	54	1	2	0	0	0	0	0	1	0	2	0	
Chiari	1	1	0	62	0	1	0	0	0	0	0	0	0	1	0	
Schmiegelow	1	1	0	51	1	0	0	0	0	0	1	0	0	0	0	
Total	34	30	4	329.	9	25	15	7	4	3	7	12	2	5	2	
Percentage		88.2	11.7	54.9	26.7	73.5	41.	20.6	11.75	8.8	20.6	35.	5.88	14.7	5.88	Average 4 yrs.

CLASS No. II.—PARTIAL EXTIRPATION.

OPERATOR.	Total cases.	Male.	Female.	Age.	Died from operation.	Survived operation.	Lived six months.	Lived one year.	Lived two years.	Well at over two years.	Died: pneumonia.	Died: recurrence.	Died: sepsis.	Died: exhaustion.	Died: accident.	Best record as to time.
v. Bergmann	19	19	0	54	5	14	12	6	5	4	5		0	0	1	11½, 8½, 5½ years.
Kocher	6	6	0	48	1	5	3	2	1	1	1		......	......	1	2½ "
Miculicz	2	2	0	53½	0	2	2	0	0	0	0		0	0	0	
Butlin	3	2	1	49½	0	3	2	2	2	1	0		0	0	0	5½ "
Fischer	7	6	1	58	3	4	4	2	2	2	......		......	......	......	6, 4 "
Chiari	12	11	1	48½	4	6	3	2	1	1	1		1	1	1	2 "
Schmiegelow	3	2	1	59½	0	3	2	0	0	0	0		0	0	0	
Semon	4	4	0	52½	2	2	2	1	1	1	1		......	......	1	6¾ "
Total	56	52	4	52.9	15	39	30	15	12	10	8	21	1	1	4	
Percentage		73.	7.4	52.9	26.8	69.8	53.5	26.8	21.4	18.	14.2	37.5	1.78	1.78	7.4	Average, 5¾ yrs.

Having obtained the figures represented in Tables 2 and 3, it will be interesting to compare them with those given in the latest article made with similar intent (Chiari, 1898).

In studying Chiari's table No. I it appears that the figures of Schmiegelow show far the best results. Here again the fallacy of statistics becomes evident. Schmiegelow's fifty cases, operated upon between 1890 and 1897, do not begin to include all of the total extirpations done during that period, even by the surgeons whom he quotes, but *only such as were published.* Failures which were within the personal knowledge of the writer, not to mention the far larger number of which he could not have heard, were constantly occurring and in the aggregate numerous. Without the addition of these the statistics must necessarily be absolutely unreliable.

Schmiegelow is right, however, to have based his figures upon work done since 1890, a period in which great advances in the technique of these operations have been made. For the same reason the writer's statistics are unsatisfactory, in that they include cases dating before the above-mentioned period. Thus, in seven cases operated upon by von Bergmann between 1883 and 1889 the average duration of life was but nineteen weeks, and the longest but eighteen months, while in thirteen cases operated upon after 1890 the average duration of life was sixty-four weeks, and several patients were still living and well at six and a half, three, two and a half and one year, respectively. On the other hand, it must constantly be remembered that these operations are being undertaken by an ever-increasing number of persons, the aggregate of whose failures would undoubtedly reduce the statistics of success to infinity, thus far more than neutralizing the advances of the best operators.

TABLE 3.

CLASS No. III.—THYREOTOMY.

OPERATOR.	Total cases.	Male.	Female.	Age.	Died from operation.	Survived operation.	Lived six months.	Lived one year.	Lived two years.	Well at over two years.	Died: pneumonia.	Died: recurrence.	Died: sepsis.	Died: exhaustion.	Died: accident.	Best record as to time.
v. Bergmann..	9	8	1	54	3	5	4	4	3	2	3	2	0	0	0	7½, 4½ years.
Kocher........	6	6	0	48½	1	5	5	0	0	3	0	1	0	0	0	3 "
Miculicz.......	8	6	2	54½	1	6	5	4	3	3	1	1	0	0	0	8, 5, 2½ "
Butlin.........	10	8	2	53	2	8	6	5	3	2	1	3	1	0	0	5½, 3, 4 "
Chiari.........	5	5	0	49	1	4	4	4	4	0	0	0	0	0	0	8, 3 "
Schmiegelow..	4	4	0	54½	0	4	2	0	0	0	4	2	0	0	0	
Semon.........	8	8	0	55¼	1	7	6	6	2	2	......	......	......	......	......	6, 3 "
Total..........	50	45	5	52½	9	39	32	23	15	16	6	9	1	......	......	
Percentage....		90.	10.	52.5	18.	78.	64.	46.	30.	32.	12.	18.	2.	......	.....	Average, 5 yrs.

CLASS No. IV.—ENDOLARYNGEAL.

OPERATOR.	Total cases.	Male.	Female.	Age.	Died from operation.	Survived operation.	Lived six months.	Lived one year.	Lived two years.	Well at over two years.	Died: pneumonia.	Died: recurrence.	Died: sepsis.	Died: exhaustion.	Died: accident.	Best record as to time.
Chiari..........	1	Diagnosis of tumor not given.														
Schmiegelow...	1	Result not reported.														
Fraenkel.......	9	8	1	58½	0	8	7	5	4	3	......	......	......	......	......	16, 10, 4 years.

CLASS No. V.—SUBHYOID PHARYNGOTOMY.

OPERATOR.	Total cases.	Male.	Female.	Age.	Died from operation.	Survived operation.	Lived six months.	Lived one year.	Lived two years.	Well at over two years.	Died: pneumonia.	Died: recurrence.	Died: sepsis.	Died: exhaustion.	Died: accident.	Best record as to time.
Butlin.........	1	1	0	59	1	Mania; death 9th day.										
Kocher...	1	1	0	46	......	......	......	......	......	1	......	......	......	......	......	4½ years.

CLASS No. VI.—LATERAL PHARYNGOTOMY.

OPERATOR.	Total cases.	Male.	Female.	Age.	Died from operation.	Survived operation.	Lived six months.	Lived one year.	Lived two years.	Well at over two years.	Died: pneumonia.	Died: recurrence.	Died: sepsis.	Died: exhaustion.	Died: accident.	Best record as to time.
Chiari..........	1	1	0	61	1	1	0	......	......	......	......	......	1	......	......	
Miculicz.	1	1	0	63	0	0	1	1	1	......	......	1	......	......	......	

The other figures in table No. I are not discouraging when the nature of the statistics is remembered. Thus, disregarding Schmiegelow's too favorable conditions and results, it is found that in my own statistics deaths from operation have been reduced nearly one half. If the same material had not been used in the statistics of Wassermann and Sendziak their death rates would obviously have been still higher.

CHIARI'S TABLE, No. I.—TOTAL EXTIRPATION.

STATISTICIAN.	Death: in two weeks.	Death: in two months.	Recurrence.	Death: intercurrent dis'e.	Recovery: brief period.	Recovery: over three yrs.
Wassermann.	Combine	d % = 45.				
Before 1881, 41 cases...	22	3	11	2	..	3
After " 77 " ..	19	9	29	9	6	5
Total 118 " ..	41	12	40	11	6	8
Percentage............	34.7	10.2	33.9	9.3	5.	6.8
*Sendziak.** 1873-1894, 188 cases....	Total operative deaths, 84 = 44.7%.		61 32.45%	....	13 6.9%	11 5.85%
Schmiegelow. 1890-1897, 50 cases......	Total operative deaths, 11 = 22%		10 20.%	....	24 48.%	5 10.%
Delavan. Combined cases of six operators, 34..........	Total operative deaths, 9 = 26.5%.		12 35.3%	16 47.%	11 32.3%	2 6.%

*Insufficient observation in 24 cases.

CHIARI'S TABLE, No. II.—PARTIAL EXTIRPATION.

STATISTICIAN.	Death: in two weeks.	Death: in two months.	Recurrence.	Death: intercurrent dis'e.	Recovery: brief period.	Recovery: over three yrs.
Wassermann.	Combine	d % = 44.				
Before 1881, 10 cases ..	3	1	4	..	2	
After " 40 "	11	7	8	1	10	3
Total 50 "	14	8	12	1	12	3
Percentage............	28.	16.	24.	2.	24.	6.
Sendziak.† 1876-1894, 110 cases...	Total operative deaths, 29 = 26.3%.		31 28.2%	....	13 11.8%	10 9.%
Schmiegelow. 1890-1897, 50 cases......	Total operative deaths, 8 = 16.%.		18 36.%	....	16 32.%	8 16.%
Delavan. Combined cases of 8 operators, 56..........	Total operative deaths, 15 = 26.8%.		21 39.%	14 25.%	27 43.5%	7 12.5%

†21 = 19% cases too incomplete for statistics.

CHIARI'S TABLE, No. III.—THYREOTOMY.

	Sendziak. 1876 1894.		*Schmiegelow.* 1890-1897.		*Delavan.* Seven op'rators	
	Cases.	%	Cases.	%	Cases.	%
Number of cases..........	92	....	49	....	50	
Death from operation....	9	9.8	7	14.3	9	18.
Relative recovery (no relapse for one year)......	12	13.	21	42.6	23	46.
Definite recovery (no relapse after three years)	8	8.7	7	14.3	12	24.
Recurrence................	49	53.3	14	28.5	9	18.

The fact that the writer's percentage of recurrence is higher than the others may be accounted for by the fact that his cases have been more carefully followed to the end. The most striking figures are those which show 32.3 per cent. of recoveries from operation, as compared with 5 and 6.9 per cent., respectively. These figures, together with those relating to death from operation, show conclusively that, in the performance of complete extirpation of the larynx, the greater the skill and experience of the operator the better will be his success.

It is strange that an axiom so simple as the above should be so often disregarded.

There is one class of laryngectomies not yet mentioned in this paper that have lately been attempted, namely, removal of the entire larynx together with the connecting tracheal lymph nodes. The writer has yet to hear of a single case, either in this country or elsewhere, where the patient has recovered.

Table No. II shows less to encourage us than would have been expected, although the number of cases in which life has been materially prolonged is considerable. The proportion of recurrence, however, is large.

Table No. III needs no comment. Its figures speak convincingly for themselves.

Tables Nos. IV, V and VI are too meagre and incomplete to be of any value, and are only given as representing all of the work in this field of those furnishing the rest of the statistical material.

If justice is to be done to the merits of the operation and the highest degree of safety secured to the patient, three conditions must be fulfilled:

1. The work performed must be of the highest order of perfection.
2. All cases must be recorded in full.
3. Sufficient time must elapse between the operation and the final report in successful cases to give full credit to the method employed.

Five years ago the author wrote as follows: "I am strongly of the opinion that, for a time at least, both the welfare of patients operated upon as well as the interests of science demand that the indiscriminate performance of capital operations upon the larynx should cease."

Let the most experienced and successful operators surround themselves with properly qualified assistants, let them systematize their efforts and use all diligence in the perfecting of appliances and methods and in the study of their cases, and let them keep careful and accurate record of everything pertaining to the history of the work.

Then resign to them the care of as many cases of laryngeal cancer as possible, so that when a sufficient amount of material has been obtained the whole matter may be placed upon a substantial scientific basis.

Then it will soon be learned whether the radical extirpation of laryngeal epithelioma is a justifiable procedure or whether, as seems probable, the practical necessities of these cases must be met by means less hazardous to the life and comfort of the patient and more certain of complete and lasting success.

Let us hope that the triumphs of iodide of potassium and the toxines of erysipelas may find their parallel in the successful remedy for epithelioma.

Rocky Mountain Inter-state Medical Association.—The second annual meeting of the Rocky Mountain Interstate Medical Association was held at Butte, Montana, on August 28th and 29th. Seventeen new members were admitted. Papers were read as follows: Some Problems Relating to Tuberculosis, by Dr. A. M. Holmes, of Denver; Gastric Fever Affecting Children, by Dr. G. T. McCullough, of Missoula, Mont.; Diagnosis of Renal Calculus, by Dr. H. D. Niles, of Salt Lake; Three Important Surgical Cases, by Dr. James F. Spelman, of Anaconda.

WERE THESE UNUSUAL CASES OF PARTIAL PARALYSIS OF THE VOCAL BANDS CAUSED BY OVER-USE OF THE TELEPHONE?*

By CLARENCE C. RICE, M. D.,

NEW YORK.

I PREFER to put the title of my paper in the form of an interrogation because there exists some uncertainty regarding the ætiology of my cases. The two reasons for the selection of this subject are to call to your attention a somewhat novel cause of vocal disability, and to ascertain if other members of this association have noted injurious effects upon the vocal apparatus from a faulty use of the telephone. The two patients whose cases I shall present for your consideration have given so clear a history of the cause of their vocal trouble that I can have but little doubt that their dysphonia was occasioned both by a foolish manner of using the telephone and by its over-use. It is not hard to believe that the nervous strain which some people seem to undergo when employing the telephone constantly, can easily have a most injurious effect, not only on the general nervous system, but on the hearing as well. It would be interesting to learn from aurists whether injury to the auditory nerves has been frequently noted in this connection. We all hear of and see persons who allow themselves to become nervously excited and exhausted when using the telephone, and such strain would be likely after a time to produce some degree of exhaustion of the auditory nerves and possibly of the recurrent nerves, by reason of central irritation. It does not seem amiss to note the large possibility that an incessant use of the telephone, harassed as the operator in large towns must frequently be by frequent interruptions, by failures to transmit the desired message, or by poor service, is an additional cause in the production of "American neurasthenia." The family physician, I learn, often has occasion to advise nervous patients not to use the telephone at all, and I know several instances in which men have finally, by reason of increasing nervousness, delegated their telephone work to other people. Although we have no special data on the subject, because they are very difficult to obtain, we should believe that the nervous strain, particularly upon the women who are employed at central offices, would be very great. This general nervous exhaustion, as I have said, may account for the impaired power of the vocal muscles through the medium of central causes, although a dysphonia due to over-use of the voice would be more likely to be peripheral in its origin.

Both my patients were men, one about forty-five and the other about fifty-five years of age. Both were actively engaged in business, one in life insurance, and in constant communication with people in town and out of town through the medium of the telephone; the other, the local manager of a realty company, told me that he used the telephone from morning until night. This latter patient was under weight, and so nervous that his physician had ordered him to take a long vacation, which, for business reasons, he had not felt that he was able to do. The older patient, on the contrary, was over-stout, in fair general condition, and had all the enthusiasm which seems to go with the life insurance business. Both these patients came to the office about the same time during the past winter, and the questions at their first visit developed the interesting fact that they both felt that the persistence of their partial loss of voice had principally been occasioned by the over-use of the telephone. Both had been in the habit of using a transmitter which rested upon the desk, and bending the chin well down on the chest, a position which makes the neck rigid and must interfere somewhat with the nerve and blood supply of the upper respiratory tract. Of course this position in using the telephone was not necessary, and harm would have been much less likely if the operator had used the telephone when standing, or had held the head in such a position that the neck had not been compressed. The laryngeal lesions in the two patients were quite different. In the case of the thin, nervous man, the vocal bands, while showing sufficient power to approximate in a general way, had lost their ability to straighten out and come in contact with each other throughout three quarters of their entire length. The thyreo-arytænoid muscles were evidently completely fatigued. In addition to this lack of straightening power, the large lateral muscles evinced great lack of sustaining power, for, unless the patient made special efforts, the arytænoid cartilages fell apart directly after they had met. During the utterance of any sound the vocal bands trembled as any tired muscle would do. This condition clearly demonstrated partial loss of power of the lateral adductors and almost entire inability of the thyreo-arytænoid, or straightening, muscles. The voice was very uneven. For a moment it was almost natural, but he would quickly become hoarse or voiceless. He was sometimes able to speak with fair clearness by pitching his voice considerably lower than in his ordinary conversational tone. His hoarseness had been present for nearly two months. No other cause than the bad manner of using the telephone, or its over-use, could be found to explain this vocal disability. The muscular weakness was bi-lateral. There was very little if any catarrhal change in the laryngeal cavity. This patient had never been a singer or public speaker, and had not used his voice in a trying way, except in the way I have indicated. There was nothing in his history to predispose to this lack of vocal power, except his condition of general neurasthenia.

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*Read before the American Laryngological Association at its twenty-second annual congress.

There is no special object in presenting to this association a picture of this form of impaired vocal power, except to call your attention to its causation, because it is the ordinary one of inability to straighten the vocal cords, associated with the common symptom of vocal fatigue. The wide opening throughout nearly the entire length of the vocal cords during phonation was in the form of a very much compressed ellipse. I do not know that I can add anything else of significance to the history of this case. The patient believed as I did that peripheral nerve tire and muscular fatigue had been caused by the telephone work at his office. His recovery was slow and unsatisfactory. He remained away from the office for a part of each week and did not use the telephone. The use of nerve tonics and electricity aided the straightening power of the vocal cords, but just when we felt that the voice was returning there would again be a long period of hoarseness and unnatural voice. After the use of electricity several weeks, as the straightening power of the cords increased, the lack of tension, which had not been apparent in the first laryngeal picture, showed itself in rapid and ludicrous changes in pitch, the voice suddenly changing from a medium bass to a high soprano. I am unable to report the progress in this case, as the patient decided to leave his business for a long period of rest.

In the case of my second patient, the older, stouter man, whose nervous system seemed to be pretty nearly normal, I was not able to trace the cause of his impairment of voice to the use of the telephone so definitely as in the first instance. In this case the laryngeal lesion was confined to the right side, and, while the voice was always husky, it was never lost altogether. There was only fair adduction on the affected side; the edge of the cord was always straight, but lack of tension was pronounced. There was less width of the right cord as compared with the left, due partly to the lesser motion and partly to the somewhat slight overhanging congestion on the right side of the larynx. The patient stated that he believed that the trouble had been produced on the right side by the fact that he had been in the habit of compressing his neck on this side as he sat at his desk and used the telephone. This was the first time he had ever had trouble with his voice, and I could find no constitutional condition which accounted for the loss of power, nor was there any local catarrhal condition which explained the impairment of voice. He was instructed not to use his voice above a whisper, and this, with the use of electricity, quickly improved his voice and restored it to almost its natural power, but slight hoarseness remained for a long time. It seemed to me that in this instance long-continued and severe compression of the neck on the right side had produced both peripheral nerve and muscular changes which had resulted in partial loss of the power of adduction and tension.

I trust that this association will not feel that these cases are too trivial for presentation here. The character of the partial paralysis seemed to me so peculiar in its ætiology, and so easily traced to the over-use of the telephone, that it would seem to be important that we should recognize the possibility of vocal fatigue from this rather new source. We know of course that a person can use the telephone without injury or fatigue if it is properly used. We always notice that operators at the central offices are careful to speak with as little exertion as possible, in a monotone, and probably never expend the nervous energy which was employed in both the cases cited.

The peculiar features of the partial paralysis in the two cases which I have presented were in the first case the long continuance of that form of vocal disability which usually remains but a few days after severe muscular strain. We have seen it frequently in shouting students, campaign speakers, and outdoor singers, but the fatigue usually quickly repairs itself. In my first patient the muscular strain had been so severe and so long-continued that it is a question whether a perfect recovery will ever be effected. The immediate falling apart of the arytænoid cartilages at the second of contact is not usually noticed except in severe cases of strain, and the trembling of the vocal bands is a rare feature.

In the second case the sluggish movement of the right vocal band was similar to that seen in cases of partial ankylosis of the arytænoid cartilage. But here the arytænoid was normal. Apparently the frequent and severe compression of the neck on the right side had been sufficient to cause a chronic passive congestion, with some degree of thickening of tissue, which explained the lack of power and the vocal disorder on the right side.

If we believe that the faulty use of the telephone or its over-use is competent to produce the laryngeal affections described in this paper, it is easy to prevent them by warning patients not to become nervously exhausted by using the telephone too much, and not to employ it in such a manner as to injure the vocal nerves and muscles.

123 EAST NINETEENTH STREET.

THE LINGUAL TONSIL.*

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THE lingual or fourth tonsil has been the subject of histological and pathological study for many years. Valuable contributions to the literature of this structure were made as early as 1852 by Kölliker, since which time Lennox Browne, in 1880, McBride, in 1882, Swain, in 1884, and Kronenberg, in 1894, have added greatly to our knowledge, while Michael, in Heymann's *Handbuch*, 1897, completed just prior to his death, gives a most comprehensive article with complete bibliography. Besides these, innumerable short articles, reports of cases, and anatomical studies have been interspersed by many authors, all combining to form a very comprehensive literature.

Notwithstanding this, the student of this subject and particularly the special practitioner is struck by the many unsettled views and the paucity of definite knowledge upon questions having a practical bearing upon the diseases of the lingual tonsil. He is also impressed with the frequency with which symptoms easily demonstrated to be due to disease in this region are referred to other structures and to erroneous causes by the specialist as well as by the general practitioner. It is the general consensus of opinion, with possibly a few exceptions, that once the practitioner's attention is called to the pronounced symptoms of diseased tissue at the base of the tongue, he finds frequent occurrences and recalls past experiences the explanation for which, while formerly doubtful, is now entirely clear.

The fourth tonsil, when diseased, is easily recognized, being situated at the base of the tongue, anterior to the epiglottis, and when not seen with the laryngoscope has been simply overlooked. This structure is a collection of follicles in most respects identical histologically with the faucial and pharyngeal tonsils, belonging to the ring of lymphatic tissue described as the "ring of Waldeyer." This ring "runs from the tonsilla pharyngea to the region of the Eustachian orifice, from there to the posterior rim of the velum palati, around the posterior palatal fold to the faucial tonsil, over the base of the tongue to the opposite side, and by the same direction back to the pharyngeal tonsil. (1)

Lennox Browne (2) maintains that certain structures of the lingual tonsil differ from those of the other lymphatic groups, particularly in the existence of more mucous and albuminous glands and the absence of certain "patches of honeycomb homogeneous colloid-looking substance" which are very frequent in the pharyngeal tonsil and probably indicate a degenerative process.

Michael (3) gives a very complete list of the diseases of the lingual tonsil. He finds anæmia, hyperæmia, and œdema associated with these conditions of adjacent structures. Acute inflammation occurs, although rarely. Abscess formation has been noted, and varicose veins, hæmorrhage, atrophy, follicular inflammation, mycosis, tuberculosis, lupus, syphilitic manifestations, and leprosy in this region have been described. A variety of tumors, such as dermoid, chondroma, adenoma, cystoma, and carcinoma, are spoken of.

The most frequent disease undoubtedly is chronic hypertrophy, more or less marked and attended with certain mechanical and neurotic symptoms, the latter being so frequent as to be called neuroses of this region. The symptom known as globus hystericus has been shown by Lennox Browne (4) to be less frequently a manifestation pure and simple of hysteria than is usually supposed, but to be more commonly an indication of some pathological lesion of the lingual tonsil.

Our attention having once been called to this region, certain symptoms will quickly arouse our suspicions, which a laryngoscopic examination will at once confirm. These symptoms are cough, discomfort in the lower pharynx, a desire to clear the throat, a sense of a foreign body, difficulty in using the tongue, a feeling of fullness in the throat, vocal fatigue, huskiness and hoarseness, difficulty in breathing, difficulty in swallowing, a sense of oppression, soreness, and hæmorrhage. All these symptoms may not be present to the same extent in all cases, and in fact many of them may be entirely absent. They are usually most pronounced in individuals of a neurotic type, and the more nearly the patient approaches the hysterical the more severe and prominent will be the throat symptoms. General physical depression, such as is associated with anæmia, particularly in young women, increases the severity of the local symptoms in the same proportion as it increases the neurotic habit.

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*Read before the Rocky Mountain Inter-State Medical Association at Butte, Montana, August 9, 1900.

Depending upon the prominence with which certain individual symptoms exist, one may class these cases into: First, those of simple discomfort. Second, those of severe cough. Third, those of vocal distress. Fourth, those of respiratory distress. Fifth, those of distress in swallowing. Sixth, hæmorrhagic cases.

The first class, namely, those in which the most prominent symptom is a sense of discomfort in the throat, occurs with great frequency, and, except those whose nervous organization causes them to fear the possibility of some serious affection, like tuberculosis or cancer, the patients do not consult the physician. The peculiarity of these cases is the fact that the discomfort is referred to the lower pharynx and is likened to the presence of a foreign body, the patient being unable to dislodge this imaginary body by either the act of swallowing or the act of clearing the throat. The term paræsthesia represents the neurosis of these cases. We frequently find that the origin of this symptom is said by the patient to have followed the swallowing of some foreign body or the lodgment of a large, poorly masticated article of food.

The second class of cases, namely, those in which cough is the predominating symptom, are the most frequent; they are also at times very distressing, the patient being unable to obtain relief from the cough, notwithstanding the administration of all known remedies. The attending physician finally concludes that the cough is reflex, but rarely locates the origin of the reflex irritation correctly. It is most gratifying to see the prompt relief which patients receive after a few applications of the galvanocautery to the enlarged lingual tonsil. In certain instances, particularly in children, the lymphatic tissue at the base of the tongue is found congested and tumefied. In these instances relief is promptly obtained by swabbing with tincture of iodine and glycerin.

The third class of cases, those in which vocal symptoms are pronounced, usually occurs in singers; at any rate, when these conditions exist in vocalists, the physician is more frequently consulted than when they exist in others. The patient finds that vocal fatigue is easily induced; there are throat ache and inability to produce notes of pure quality, particularly in the middle and lower registers.

The fourth class of cases, those in which the respiratory symptoms predominate, are of a very distressing, not to say alarming, character. The patient gives a history of violent attacks of dyspnœa. These may come on at any time during the day or night, but more commonly at night. They may occur without obvious cause and with no warning, but are more likely to be induced by attempting to swallow a large or irritating bolus of food or upon the occurrence of some violent mental emotion. They resemble very closely the cases of so-called globus hystericus, which, as stated above, has been shown by Lennox Browne to be a symptom of enlarged lingual tonsil. The patient dreads to go to bed for fear that he may die from suffocation. I have seen patients in an attack, and know of nothing which it resembles more closely than a violent spasm of the larynx. The mental distress and fear may be so great as to seriously influence the patient's general health.

The fifth class of cases, those in which the patients complain of difficulty in swallowing, vary from moderate dysphagia, the lodging of food in the throat, to complete inability to swallow anything but liquids. The patient fears even an attempt at swallowing, knowing that, unless the food is of the most cohesive and soft character, it will not be passed into the œsophagus. A peculiar perverted action of the constrictors may even force liquids or semifluids into the nasopharynx and through the nose. Coughing and dyspnœic attacks may be associated with the difficulty in deglutition, and the patient avoids eating in the company of others. The fear of eating at all may be so great that barely enough food to sustain life will be taken and the patient show every indication of slow starvation. We have been led to look upon hysterical manifestations, spasmodic stricture of the œsophagus, etc., as being unattended with any marked depression of the general health, so far as the direct effects of insufficient food are concerned. I am, however, convinced that this is erroneous, for my records show more than one case in which decided emaciation was the result of the neurosis described as belonging in this class of cases.

The sixth class of cases, the hæmorrhagic class, are those in which the veins at the base of the tongue, which are normally superficial, become enlarged and varicose, and ruptured. Although this occurs with comparative infrequency, this region should be, nevertheless, thoroughly explored in cases of hæmorrhage in which the cause is hidden. We all know with what difficulty early pulmonary hæmorrhage is recognized, and grasp with joy at the possibility of a given case being non-tuberculous and due to the rupture of a superficial vein in the throat; but my experience, based upon many cases examined in consultation, leads me to say that, although varix at the base of the tongue is common, hæmorrhage from this source is of rare occurrence. Many of the symptoms described as belonging to hypertrophy of the fourth tonsil may, however, be depended upon enlarged veins in this situation.

The explanation of the peculiar phenomena which follow diseases of the fourth tonsil, and particularly the symptom of cough, is not, as a majority of authors seem to think, that they are the results of mechanical irritation due to direct tickling of the epiglottis. The nervous supply of this region is abundant and sensitive, the glossopharyngeal and the superior laryngeal branch of the penumogastric sending numerous branches to this situation. By irritation of these nerves, and particularly of the superior laryngeal, the reflex irritation is carried to the entire vagus distribution, and in this way the most severe cases of difficulty in swallowing and respiratory distress may be explained. True, when the hypertrophy is so large that the epiglottis seems to be enveloped in a mass of lymphatic tissue (6) the mechanical interference with deglutition is considerable, but I have seen innumerable cases in which but slight hypertrophy occurred, in which all the follicles at the broad lingual base were involved, and in which most pronounced manifestations as above described were the result.

A point to which I desire to call particular attention is the frequent complication of affections at the base of the tongue with other conditions, particularly tuberculosis. The distressing cough in some cases of moderate or incipient tuberculous disease is largely, if not entirely, due to enlarged follicles at the lingual base. Much relief may be given in these cases by treatment directed to this region.

I desire also to offer a word of caution and warning to the effect that many individuals present comparatively large lingual tonsils, but that they are not responsible for any symptom, and, moreover, *it is not always safe to conclude that because certain peculiar nervous symptoms are relieved by the application of the galvanocautery to the base of the tongue, these symptoms were the direct results of disease at this situation.* In certain highly neurotic cases we cannot exclude the effect of counterirritation or the profound mental impression made by rather severe and, to some, formidable local treatment.

I have not attempted to deal with any of the diseases at the base of the tongue except the one attended with hypertrophy of the lymphatic tissue and enlargement of the veins in this region. The peculiar reflex symptoms, however, which are found in hypertrophied fourth tonsil may with more or less regularity and severity be found associated with the other affections.

The treatment must be suited to individual cases. Constitutional as well as local remedies should be exhibited; anæmia, the neurotic habit, lithæmia, and other constitutional vices must be appropriately met, while, so far as local treatment is concerned, the galvanocautery has been found to be the remedy *par excellence.*

References.

1. Kaiser, *Handbuch der Laryngologie und Rhinologie,* Band II, p. 489.
2. *Transactions of the American Laryngological, Rhinological, and Otological Society,* 1898, p. 163.
3. Michael, *Handbuch der Laryngologie und Rhinologie,* Band II, p. 619.
4. *The Throat and Nose and Their Diseases,* Fourth Edition, p. 223.
5. Price-Brown, Fig. 88, p. 285.
6. Heymann's *Handbuch,* Band II, Fig. 1, p. 621.

A RÉSUMÉ OF SOME PAPERS PRESENTED TO THE THIRTEENTH INTERNATIONAL CONGRESS OF THE MEDICAL SCIENCES.

(*Continued from page 415.*)

The following papers are abstracted from the *Comptes rendus* furnished by the *Agence centrale de la presse scientifique internationale.*

Section of Genito-urinary Surgery.

The Treatment of Blenorrhagia of the Anterior Urethra.—M. Suarez de Mendoza, of Madrid, proclaimed himself a decided partisan of lavage as practised by Janet in the treatment of blenorrhagia. He had modified the technique in such a way that the patient could practise it himself, and the physician be relieved of the mess and other inconveniences of this classical procedure. He made use of a special double-way cannula and spared the patient much soiling by means of a sheet of caoutchouc perforated to admit the passage of the penis. This cannula was so constructed as to thoroughly wash out the urethra, and it alone. While according to curative treatment its full importance, the author thought that research should be more especially directed toward prophylaxis; and since it had been shown that the gonococci remained for a considerable time on the epithelial surface, he recommended that within twenty-four hours after suspicious coitus the germs should be sought out and destroyed by means of copious irrigations of potassium permanganate. Experiments having this end in view, with a pure culture of gonococci in the urethra, although yet incomplete, had given results sufficiently satisfactory to induce the author to continue his investigations, notwithstanding the difficulties of various kinds by which they were surrounded.

The Treatment of Blenorrhagia in Woman.—M. Jules Janet, of Paris, said that recent blenorrhagia in woman might affect the urethra, Skene's glands, Bartholin's glands, the vagina, and the cervix uteri. All these foci should be disinfected at every *séance,* or at least those foci infected, for all of them were not always attacked simultaneously. A focus not infected at first might easily become so in the course of treatment, and it was therefore necessary to watch it at each consultation. The author washed out the urethra with a return-flow cannula constructed by M. Gentile, which was a modification of the recurrent catheter of M. Burckardt, of Basle. For irrigation, he used potassium permanganate of a strength of from one-half to one per cent. He frequently used, also, Nélaton's short sound, by means of which he washed out and filled the bladder with permanganate. The patient immediately rejected this injection, thus washing out his urethra. He further profited by the act of withdrawing the catheter to continue the urethral injection. Those Skene's glands which were extraurethral, he emptied by pressure, and washed by means of a syringe with a soft, fine catheter, using permanganate solution of a strength of one to three hundred. When intraurethral, he opened the lips of the meatus with a small bivalve speculum. He then sought for the orifices of the glands and treated them in the same way as the others. Or they might be incised from the urethra, but lavage with a fine cannula was ordinarily sufficient. Bartholin's glands he emptied by pressure and injected with permanganate, one to three hundred, through a fine cannula introduced into their excretory ducts. The vagina was irrigated with permanganate of a strength of one-half to one thousand, using a glass catheter. The cervix was swabbed by means of an applicator, with cotton moistened with a one-per-cent. solution of the permanganate. The treatment was continued during menstruation. The permanganate might be replaced by a two-per-cent. solution of protargol for the cervix, one-per-cent. for the glands, and one-half-per-cent. for the urethra.

Chronic Blenorrhagia in a Supernumerary Urethra.—M. Perkowski, of Warsaw, related the case of a man, twenty-five years of age, who had had from childhood a second orifice besides the normal meatus in the glans penis. A year before being seen by the author he had contracted gonorrhœa in this abnormal supernumerary canal. After treatment by injections, the discharge had disappeared at once, returning, however, after each coitus. It was worthy of remark that the normal meatus had never been infected. The meatus urinarius was situated at the summit of the gland, while the abnormal superior opening was on the anterior surface thirteen millimetres farther back. A No. 18 Béniqué sound could easily be passed into the normal meatus, whilst No. 16 entered the abnormal canal, the entire length of which was twelve centimetres, with difficulty. After introducing a grooved sound, M. Perkowski laid open the supernumerary urethra. It was a subcutaneous canal situated above the two unseparated corpora cavernosa, and after a course of about nine centimetres it buried itself at the base of the penis among the muscular layers of the abdominal wall, ending at a blind canal at the symphysis pubis. This deeper part of the abnormal canal was three millimetres in length. Comparing the abnormal canal with the normal urethra, it was found that it only lacked the membranous and prostatic portions. The incision showed that the mucosa had a deep red tinge; its surface was striated in places; and there were longitudinal folds throughout its length. The diameter of the incised surface corresponded to the dimensions of the different parts of the normal urethra; for the narrowing of its meatus was succeeded by an expansion comparable to the fossa navicularis, after which the canal became narrowed again, enlarging once more at its pubic end. As there were strong adhesions between the diseased mucosa and the corpora cavernosa, and its dissection was, in consequence, almost impossible, demanding free incisions of the abdominal muscles, sutures were applied between the edges of the skin and the incised mucosa, in the belief that in a short time the exposed mucous membrane would acquire a dermoid character. Cauterizations of the incised mucosa and injections of iodine into the deeper-seated part, in time produced cicatrization of the abnormal urethra and a cure was effected.

Section of Therapeutics.

The Treatment of Anasarca.—Dr. Menko, of Amsterdam, said that when the diuretic, purgative and diaphoretic treatment of anasarca had failed, there still remained the surgical method which, though naturally indicated, was not widely used by physicians. This fact must be attributed to the reason that very often only palliative relief could be afforded because the initial trouble was of such a nature as not to be susceptible of complete cure. Many physicians had discarded surgical treatment because they feared the complications liable to follow upon wounds. It was a matter of regret that, even to-day, when asepsis and antisepsis were available in all their perfection, we could not always avoid dangerous complications. There were only two methods possible in practice, viz.: incision and drainage. The author employed incision in patients who were delirious or agitated, or in those who could not remain in bed in consequence of orthopnœa, as well as in cases of epidemic sclerosis occasioned by obstinate œdema. In all other cases he preferred drainage for the following reasons: Incisions healed but slowly. The patients were continuously saturated with fluid. Incisions were painful, and we had no control over the flow of fluid. Finally, the antiseptic treatment of wounds was only attainable by the use of an enormous amount of dressings. The instruments employed by the author were his own modification of Curschmann's cannula, and an instrument of his own invention, which acted as a tourniquet, and was used to avoid the flooding of the wounds, which was one of the principal causes of infection. The results of the cases treated by Professor Pel at the clinic at Amsterdam were very encouraging. The author had also had cases in private practice in which his method had given excellent results.

Section of Surgery.

A New Modification of the Operation for Appendicitis Intended to Insure the Integrity of the Abdominal Wall.—Dr. Robert F. Weir described a modification of McBurney's method, which latter offered only a contracted operative field situated between the anterior and superior iliac spine and the border of the rectus muscle. The author of this measure, he said, wisely limited its application to cases which were operated upon in the interval between the attacks. Nevertheless, a certain number of surgeons had endeavored to make use of this method in acute cases, but they either found themselves embarrassed by the restricted nature of the field of operation, or else they were compelled to enlarge the opening in the abdominal wall. The author proposed that when the peritoneal cavity had been opened, as in McBurney's method, and the necessity for more room became evident, the necessary enlargement might be attained by removing the internal portion of the incised aponeurosis of the external oblique nearly up to the middle line, either with the fingers, or by means of the blunt part of the scissors. This procedure uncovered the anterior sheath of the rectus, which covering was divided transversely; then the rectus muscle was drawn strongly inwards, thus uncovering its posterior sheath. This latter, in its turn, was transversely incised, continuing the original opening of the peritonæum, and forming an aperture which extended from the anterior superior iliac spine to the median line. Retractors would sufficiently enlarge the opening and afford an extended field permitting one to operate at ease in the abdomen. The operation over, the divided posterior sheath of the rectus muscle, as well as the peritonæum, was closed by means of an interrupted or continuous catgut suture, closing the wound completely if drainage was not deemed necessary. The rectus muscle which had been drawn aside was left free to resume its former position. Its anterior sheath was carefully closed by means of yet stronger catgut sutures; after which the edges of the incised sheath of the external oblique were in their turn sutured. The suture of the skin completed the operation.

The author had employed this method in sixty-two cases. In twenty-seven there had been unexpected complications in the removal of a quiescent appendix. Of the thirty-five other cases, all, save a single case of ectopic pregnancy, were operated on in a similar manner for acute appendicular inflammation. In the greater part of these cases, recourse was had to drainage for two or three days; this drainage was effected by means of three strips of caoutchouc (not gutta percha) folded upon themselves to permit prompt removal. A provisional catgut suture, placed at the time of operation, was useful on the removal of the drain, and served, when the oozing became small, to close the drainage orifice. So far the author had had no consecutive hernias, but time was required before any certain judgment on this point could be formed. This procedure had been adopted, the author stated, by many other American surgeons, notably by Fowler, of New York, who had published a similar exposition of the method.

The Application of the Intestinal Forceps of Laplace.—Dr. E. Laplace, of Philadelphia, presented a forceps intended to replace Murphy's button in the suture of the intestine. This instrument had been previously shown for the first time at the Denver meeting of the American Medical Association. It consisted of two portions the grips of which were arranged in a semicircle. The two forceps were articulated with lock joint and, when opened, formed by their grips a complete circle. The instrument being opened, each grip was introduced into one of the two ends of the intestine so that the serous coats were in apposition. A thread was then made to pass all round save where the instrument had been introduced. All that remained was to unlock the joint and remove each part separately, and close the small remaining part. This instrument also allowed the performance of lateral anastomosis by introducing the grips into the two openings in the stomach and intestine. This method, the author said, had been employed successfully in fourteen cases of gastroenterostomy, intestinal anastomosis, and cholecystenterostomy. The operation took, on the average, from eight to ten minutes. The advantage of the instrument consisted in having the operative field in view, permitting the easy application of sutures, without any escape of the gastrointestinal contents, and in not leaving any foreign body in the intestine.

Hydatid Disease in the Argentine Republic.—M. Herrera Vegas and Dr. Daniel J. Cranwell stated the conclusions of their investigations as follows: 1. The Argentine Republic was one of the countries in which hydatid disease effected the greatest ravages; 2. Nearly all the patients came from the province of Buenos Ayres; 3. The highest mortality was that of hydatid cysts of the brain, and of multiple cysts of the abdomen; 4. The method of election for operative treatment was the laying open and drainage of the cyst.

Section of Gynæcology.

Primary Tuberculosis of the Genital Organs in Women.—M. Samuel Bernheim, of Paris, had collected eighty cases of primary tuberculosis of the female genitalia, from which he drew the following conclusions: 1. This localization of the bacillus was not rare, and it would be more frequently diagnosticated if a systematic search for Koch's bacillus was made in the genital secretions of every woman suffering from a uterine affection. 2. Primary tuberculosis of the genital organs was frequent, especially in women in full sexual activity, that was to say from fifteen to thirty years of age. It had, however, been observed in young children and in aged women. 3. The causes of the contagion were many; sexual relations, prior infections such as chancre, syphilitic ulcerations, blenorrhagia, and contact with or introduction of improper foreign bodies. Certain individual conditions favored contagion. 4. The bacillus showed a preference for certain parts of the genitalia. This primary tuberculosis was most frequently met with in the region of the tubes and ovaries, and more rarely in the uterus and vulvovaginal canal. The author gave anatomic and bacteriologic reasons for these facts. 5. When a uterine affection presented no clearly inflammatory characters, it was necessary to think of tuberculosis in order to arrive at a diagnosis by an ensemble of special symptoms, or by the tuberculin test or serum reaction.

6. The treatment should be surgical when tuberculosis was associated with other microbes and suppuration was menaced. Hygienic and dietetic therapeutics could be successfully employed in the majority of cases.

Section of Bacteriology.

Immunity.—M. Buchner, of Munich, said that there existed two kinds of immunity, natural, and artificial, or specific. The first would be better called natural resistance. It consisted in the richness of the fluids in alexines, and also in the power of the leucocytes to consume living, and even virulent bacteria. The alexines of serum were an offshoot of the leucocytes, so that immunity, or natural resistance, was a function of the leucocytes. M. Metschnikoff and M. Bordet supposed that the alexines were not set free from dead leucocytes after their dissolution. Buchner and his pupils, Laschtschenko and Makaniski, could not agree with this view. The alexines were especially a product of secretion of living leucocytes. Their function was undoubtedly to attack the microbes, to weaken them, and thus to render easier their absorption by the leucocytes. In certain cases, they sufficed even to destroy the bacteria without the aid of the leucocytes. Artificial, or specific, immunity was of three kinds: Antitoxic, bactericidal, and hæmolytic. The first was produced by a preparatory treatment of the animal with toxines, or with toxoids and toxones; the second, with living or dead bacteria; and the third with specific erythrocytes, living, or heated to 60° C. In these three cases the serum of animals treated would give rise to an antibody of which the antitoxine was one variety. This antibody had the property of combining with the toxic substance which had given rise to it (toxine, microbe, blood globules, etc.). Such was the true principle of artificial or specific immunity. General conclusions were drawn as follows: Natural resistance differed essentially from specific immunity, the former being characterized by alexines, the latter by antibodies. The alexines were destroyed at a temperature of 60° C., and differed according to the species of animal that produced them. The antibodies were more stable and resisted a temperature of 65° C. They did not differ according to the kind of animal which produced them, but according to the reaction made use of in the preparatory treatment. Alexines and antibodies acted simultaneously in the same organism. Natural immunity and specific immunity might thus be associated, and reenforce each other.

Therapeutical Notes.

Hot Air in the Treatment of Articular Effusions.—Dr. Klapp, of the Greifswald surgical clinic (*Münchener medicinische Wochenschrift,* 1900, No. 23; *Wiener klinische Wochenschrift,* August 23), reports his experience in the use of hot air by means of a simple wooden box. He applies the heat, from 248° to 292° F., for an hour or two daily. He commends the remedy for serous and hæmorrhagic effusions, but says that in tuberculous articular affections it not only does no good, but is apt to do harm. Its action is quite rapid, especially during the first few days.

A Powder for Gastric Acidity.—As the result of much experience, Professor Pel, of Amsterdam (*Klinisch-therapeutische Wochenschrift,* 1900, No. 5; *Aerztliche Polytechnik,* August), recommends this formula:

℞ Sodium bicarbonate	2½ drachms;
Calcined magnesia	2 “
Sodium bromide	2½ “
Bismuth carbonate	1¼ drachm;
Sugar of milk	2½ drachms;
Oil of fennel	4 drops.

M.

From half a teaspoonful to a teaspoonful to be taken an hour or two after eating, and a special dose in case of pain.

The Topical Treatment of White Swellings.—*Province médicale* for August 11th, citing *Presse médicale,* ascribes the following to Lucas Championnière:

1. *The Inflammatory Period.*—Washing with antiseptic soap, the actual cautery, and the application of the following plaster:

℞ Mercurial ointment	1500 grains;
Soap plaster	1200 grains;
Camphor	from 15 to 30 grains.

M.

Flannel bandages spread with heated plaster are applied and covered with cotton and a bandage. They are to be renewed every five or six weeks, for as long a time as necessary, combined with the following treatment if called for:

For *Fistulæ.*—Injections with:

℞ Water	1500 grains;
Chloride of zinc	150 grains;
Hydrochloric acid	1 drop.

M.

Or:

Liquid vaseline	1500 grains;
Powdered iodoform	150 grains.

M.

Or:

Camphorated naphthol.

General Treatment.—

℞ Potassium iodide	150 grains;
Water	2250 grains.

M.

A coffeespoonful daily at the beginning of meals.

Or, for children under twelve years of age, the following mixture:

℞ Potassium iodide	75 grains;
Water	2250 grains.

M.

This treatment may be alternated with arsenic, and a stay at the seaside is recommended.

The Mountain Ash as a Laxative.—Kroupetzky (*Semaine médicale,* July 25th; *Wiener klinische Wochenschrift,* August 23d) says that the fluid extract of *Sorbus* (or *Pyrus*) *aucuparia* is laxative, although the berries are astringent. The extract is of a deep red color and agreeable to take. From twenty drops to a teaspoonful may be given two or three times a day. The part of the tree used for making the preparation is not specified.

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THE WATER SUPPLY OF THE CITY OF NEW YORK.

I.

Last week we depicted—and the picture was by no means overdrawn; indeed, it might have been heightened without departing from the truth—the sad plight of the people of certain districts in the borough of the Bronx that is the result of an inadequate supply of water. Their condition, hard as it is to bear, is not much worse than that of all the people of the old city of New York, save the few who drew their supply from the high-service tower, was for several years preceding the completion of the new Croton aqueduct. There is great danger that the same state of things will shortly be upon us again unless radical measures are taken at once to guard against it. This danger is clearly demonstrated in *An Inquiry into the Conditions relating to the Water Supply of the City of New York,* a report lately made by a committee of the Merchants' Association of New York, to which we alluded in our last issue. We now purpose considering that report, in all save its financial aspects, somewhat in detail; in this article, however, we must confine our attention to that portion of it which deals with the present needs and resources of the city in the matter of water.

The boroughs of Manhattan and the Bronx are now supplied from the Croton, Bronx, and Byram watersheds. The borough of Brooklyn is supplied from ponds and driven wells on Long Island, exclusive of the county of Suffolk, whose waters the borough is by law forbidden to use. The borough of Queens is supplied by wells, about thirty per cent. of which are owned by the city. The borough of Richmond, too, is supplied by wells, and practically they are all private property. Forty-five per cent. of the city's supply is pumped, and fifty-five per cent. flows spontaneously from reservoirs situated high enough for the purpose. In the year 1899 the average daily consumption was 371,778,000 gallons (230,000,000 in the borough of Manhattan, 21,000,000 in the borough of the Bronx, 102,663,000 in the borough of Brooklyn, 12,925,000 in the borough of Queens, and 5,190,000 in the borough of Richmond). The city's chief dependence is now upon the Croton watershed. It is estimated that, on the completion of the Cornell dam, that source will furnish permanently from 275,000,000 to 280,000,000 gallons daily, and the additional yield from the watersheds of the Bronx and Byram rivers cannot safely be estimated at more than from 15,000,000 to 17,000,000 gallons, so that the entire supply that can be counted on for the boroughs of Manhattan and the Bronx will be only about 290,000,000 gallons, or but 39,000,000 gallons in excess of their present consumption. The Long Island boroughs (Brooklyn and Queens) are already consuming about their entire supply, according to the report, and we may add that for a number of months past there have been numerous complaints of scarcity of water in Brooklyn. The present supply of these boroughs is probably soon to be so increased by the laying of a conduit from Millburn to Spring Creek as to tide them over to a time when a new municipal supply can be made available. In the borough of Richmond (Staten Island) the supply from local sources can be increased somewhat, but not to an extent commensurate with any large increase of the population.

On the whole, the committee estimate that, as things are now going on, the consumption will equal the supply by the year 1903, but that condition may be postponed to 1910, they think, if ten per cent. of the present waste can be prevented, and this they regard as feasible. Most of the waste, they say, takes place from pipes leaking in the ground, and such leakage may be largely done away with by placing the pipes in subways, where they can readily be inspected and repaired. At the latest, therefore, by the year 1910 we shall be in need of an additional supply for all the boroughs, and it will take from six to eight years to finish the work after it is begun.

PUERPERAL ECLAMPSIA WITHOUT ALBUMINURIA.

The frequency with which puerperal eclampsia occurs without the presence of albumin in the urine before, during, or after the convulsions seems to be the subject of some difference of opinion. At the recent International Medical Congress (*Presse médicale,* August 22d) M. Bouffe de Saint-Blaise, of Paris, stated that, although he had seen three cases, the absence of albuminuria was extremely rare. M. Bar, however, thought that before and during the convulsions it was not very uncommon, for he had met with seven examples of it in seventy cases of eclampsia, but in his cases there had always been albumin in the urine after the attack. Both these gentlemen agreed that the absence of albuminuria was no safeguard against convulsions; indeed, they and two other speakers, M. Budin and M. Pinard, famous obstetricians, expressed the conviction that puerperal eclampsia was not of renal origin, but only found expression in such urinary phenomena as albuminuria, indicanuria, etc.

M. Pinard went so far as to declare that the word eclampsia ought to be given up, for the paroxysm was but a symptom, the disease itself being due to hepatic insufficiency, and the kidneys only secondarily affected. The hepatotoxæmia, he said, could not be detected clinically, but fortunately albuminuria was almost always present and was the signal for putting the patient on the use of a milk diet. M. Bar said that the forms of albumin found in the urine in eclampsia were peptones of variable composition, and he thought they were the products of toxines circulating in the blood and were eliminated by the kidneys. After the paroxysm there supervened a veritable urinary unloading of albumin, indican, etc., which showed that the blood was hypertoxic at the time.

In two of M. de Saint-Blaise's three cases of eclampsia without albuminuria the patients were of "hepatic antecedents" and showed some general signs of poisoning, but no albumin in the urine at any time, although the urine contained biliary waste products in abundance. The milk diet and the treatment proper for the hepatotoxæmia of pregnancy should be instituted at the very first warning, especially in women who had previously shown signs of biliary trouble, for biliary derangement readily ran into hepatic insufficiency during pregnancy.

THE GRAND ARMY IN CHICAGO.

THE people of Chicago are at their best, so far as we of the East can judge, when they are taking care of a host of visitors. The recent great reunion of the Grand Army of the Republic seems to have given rise to a notable exemplification of that fact. A Chicago physician, Dr. Francis Duncan, has been good enough to send us an account of some of the provisions that were made for ministering to the physical needs of the veterans. Including the hundred thousand old soldiers that registered, he says, it is estimated that over a million persons were present as visitors. The hotels and boarding-houses were filled, and two hundred large and well-ventilated school buildings were made use of as lodgings. To look after this vast concourse of people, Dr. Robeson selected a large staff of physicians, with headquarters in a spacious building in the central part of the city, where persons could be brought in an emergency and cared for until they were able to be removed, and five nurses were kept busy. Ambulance wagons and surgeons were stationed along the line of march, and there were many instances of exhausted persons being hastened to the hospitals.

The day on which the parade occurred was warm, and the solid mass of spectators that lined the streets of the entire route added no vitalizing element to the air. Dr. Duncan, who took part in the medical service organized for the occasion, and whose own words we are largely using in this article, writes that it was inspiring to see the feeble old men "brace up" to the strains of martial music and march as of yore. But often, he adds, their steps grew weak and unsteady, and some of them dropped out or fell out and were cared for by the staff. In nearly all cases, he says, the circulation was first affected; the face grew pale or abnormally flushed, then the respiration became labored, and asphyxia seemed impending. Some bad cases of heart failure occurred, one man dropped on the march, and several were attacked with angina pectoris. One who was treated at headquarters was unconscious, but was finally revived with amyl nitrite. Many cases of prostration were treated at the county hospital. Dr. Duncan thinks that the plan of sending the "old boys" to the school buildings was a good one. There were 137 in the building that he had charge of, and there was very little sickness among them.

It seems questionable if it is wise for the veterans to attempt many more long marches. Persons who have been present at many of their reunions say that the number of those who had to drop out after trying to march in the Chicago parade was larger than ever before. This is not to be wondered at, for the men are growing older all the time, and many of them were by no means youthful when they served in the field nearly forty years ago. Next year's reunion is to be held in Denver, and there at least great care should be taken not to tax their strength, for the altitude would probably prove very trying to their feeble hearts. Dr. Duncan ascribes great value to coffee as a sustaining agent on such occasions. It is better for the purpose, he thinks, than any form of alcohol, but the excitement of the occasion and the inspiration of the music served to keep on his feet many a man who must otherwise have dropped out. As regards the music, an old soldier said to him: "I can march much better behind the fife and drum than behind band music. The fife seems to help me lift my feet. The short, quick tread tires me less than the heavy step."

SUCCESSFUL LIGATION OF THE INNOMINATE ARTERY FOR A WOUND OF THE COMMON CAROTID.

At the recent Paris International Medical Congress a Mexican surgeon, Dr. Alberto Ramon Hernandez (*Wiener medizinische Blätter,* August 30th), reported a case in which he had successfully tied the innominate artery for a wound of the common carotid. The account states that the case is the first instance of that operation, undertaken for such an injury, proving successful.

HYSTEROTOMY *VERSUS* HYSTERECTOMY FOR FIBROIDS.

The greater technical difficulties in the procedure of removing uterine fibroids by laparotomy with than without removal of the uterus have probably led to the present frequency of hysterectomy. Tuffier (*Semaine médicale,* 1900, No. 31; *Wiener klinische Wochenschrift,* August 30th) reports that, in fifteen cases of enucleation performed by him, only one proved fatal. These results show encouragingly for surgeons who favor conservative work.

THE TITLE "FRAU DOCTOR."

The *Wiener medizinische Blätter* for August 30th publishes an extract from the *Pharmaceutische Zeitung* giving an account of the prosecution of a widow of a physician who, having opened an orthopædic institute, used the title "Frau Doctor" in her advertisements. It seems that she had been permitted to use the title "verwitwete Frau Doctor," but that did not satisfy her.

THE DANGER OF LUMBAR PUNCTURE.

We are too apt to overlook the fact that considerable danger is often connected with procedures that are simple and apparently harmless. Gumprecht (*Deutsche medicinische Wochenschrift,* 1899, No. 24; *Centralblatt für Chirurgie,* August 18, 1900) adds two cases of his own to the fifteen of sudden death after lumbar puncture that he finds on record. Most of these deaths occurred in cases of cerebral tumor.

THE SPANISH-AMERICAN WAR NURSES' ASSOCIATION.

Organizations of persons who have taken any part in a given war are always commendable, and we are glad to learn that the nurses who served in the late war with Spain have formed an association. The body was organized recently at the New York Hospital.

THE NEW YORK BOARD OF HEALTH'S PROPOSED PLAGUE LABORATORY.

The Health Department of the city, it is announced, is about to build a special laboratory for bacteriological work in the one direction of the study of bubonic plague and, presumably, the preparation of a prophylactic and curative serum. This has been resolved upon in consequence of the increased danger that the disease may be brought to New York. Extraordinary pains are to be taken to guard against the possibility of infection being spread from the laboratory. It will be practically an airtight structure, with no chimney or windows, having a concrete floor, and all refuse matter will be specially disinfected before being allowed to escape into the sewer.

THE DISASTER IN TEXAS.

The recent terrible calamity that has befallen the people of Texas, and particularly the city of Galveston, recalls the Johnstown flood and other great disasters. All such occurrences are fraught with urgent calls for medical assistance, and it is understood that in this instance such assistance is provided for as well as could be done in the absence of such an organization as the National Volunteer Emergency-Service Medical Corps, of which we spoke in our issue for June 23d.

ITEMS.

Infectious Diseases in New York.—We are indebted to the Sanitary Bureau of the Health Department for the following statement of cases and deaths reported for the two weeks ending September 8, 1900:

Diseases.	Week end'g Sept. 1		Week end'g Sept. 8	
	Cases.	Deaths.	Cases.	Deaths.
Typhoid Fever	53	20	88	27
Scarlet Fever	42	4	37	22
Cerebro-spinal meningitis	0	6	0	4
Measles	39	5	38	3
Diphtheria	96	17	104	14
Laryngeal diphtheria (croup)	3	1	2	1
Tuberculosis	142	134	215	152
Chicken-pox	1	0	1	0
Small-pox	0	0	0	0

Marine-Hospital Service.—*Official List of the Changes of Stations and Duties of Commissioned and Non-Commissioned Officers for the United States Marine-Hospital Service for the Seven Days ending September 6, 1900:*

Carmichael, D. A., Surgeon. Detailed as chief quarantine officer, Territory of Hawaii, August 31st, 1900.

White, J. H., Surgeon. To proceed to New York, N. Y., for special temporary duty, September 1st, 1900.

Thomas, A. R., Passed Assistant Surgeon. Relieved from duty at London, England, and assigned to duty in the office of the U. S. Consul at Glasgow, Scotland, August 31st, 1900.

Lavinder, C. H., Assistant Surgeon. Detailed as chief quarantine officer of Porto Rico, August 31st, 1900.

Anderson, J. F., Assistant Surgeon. Relieved from duty at Vienna, Austria, and assigned to duty in the office of the U. S. Consul General at London, England, September 1st, 1900.

Kerr, J. W., Assistant Surgeon. Relieved from duty at Honolulu, and directed to proceed to Hong Kong, China, for duty in the office of the U. S. Consul, September 1st, 1900.

Corput, G. M., Assistant Surgeon. Granted five days' extension of leave of absence, September 1st, 1900.

Maguire, E. S., Hospital Steward. Upon being relieved by Hospital Steward Charles Miller, to proceed to Fort Stanton, N. M., and report to medical officer in command for duty and assignment to quarters, September 6th, 1900.

Miller, Charles, Hospital Steward. Relieved from duty at Detroit, Michigan, and directed to proceed to New York (Stapleton) and report to medical officer in command for duty and assignment to quarters, September 6th, 1900.

Woods, C. H., Hospital Steward. Relieved from duty at Cairo, Illinois, and directed to proceed to Chicago, Illinois, and report to medical officer in command for duty and assignment to quarters, September 6th, 1900.

LaGrange, H. V., Hospital Steward. On expiration of leave of absence, relieved from duty at Fort Stanton, N. M., and directed to proceed to Cairo, Illinois, and report to medical officer in command for duty and assignment to quarters, September 6th, 1900.

Rogers, Edward, Hospital Steward. Upon being relieved by Hospital Steward C. H. Woods, to proceed to Detroit, Michigan, and report to medical officer in command for duty and assignment to quarters, September 6th, 1900.

Watters, Mark H., Hospital Steward. Directed to report to medical officer in command at Chicago, Illinois, for temporary duty and assignment to quarters, September 1st, 1900.

Naval Intelligence.—*Official List of Changes in the Medical Corps of the United States Navy for the Week ending September 8, 1900:*

Armstrong, E. V., Assistant Surgeon. Granted sick leave for one month.

DeValin, C. M., Passed Assistant Surgeon. Ordered to additional duty at the navy yard, Portsmouth, N. H. Orders issued by commander-in-chief of Asiatic Station:

Grunwell, A. G., Assistant Surgeon. Detached from the *Monocacy* and ordered to the *Brooklyn*.

Lippitt, T. M., Assistant Surgeon. Detached from the *Newark* and ordered to the *Monocacy*.

Russell, A. C. H., Surgeon. Detached from the naval hospital, Yokohama, Japan, and ordered to proceed home to await orders.

Vacancies in the Medical Corps of the Navy.—A Naval Medical Board of Examiners for examination of candidates for admission to the Medical Corps of the Navy is now in session at the Naval Laboratory, Brooklyn, N. Y., and will remain in session for several months. There are now seventeen vacancies in the list of assistant surgeons. Congress at its last session passed a law taking assistant surgeons out of the steerage and making them ward room officers as soon as they entered the service, giving them the rank of junior lieutenants and the pay of assistant surgeons in the Army. Candidates must be between the ages of 21 and 30. A circular of information can be obtained on application to the Surgeon General of the Navy, Navy Department, Washington, D. C.

Schools Closed at Erie on Account of Small-pox.—The authorities of Erie, Pa., have decided to delay the opening of the schools in that city for two weeks past the regular date on account of the presence of small-pox in the city.

Marine-Hospital Health Reports.—The following cases of small-pox, yellow fever, cholera and plague have been reported to the Surgeon General, U. S. Marine-Hospital Service, during the week ended September 8, 1900:

Small-pox—United States.

Nome, Alaska	Aug. 11	6 cases.	
New Orleans, La	Aug. 26—Sept. 1	4 "	1 death.
Minneapolis, Minn	Aug. 18-25	2 "	
Winona, Minn	Aug. 21-28	2 "	
Cleveland, Ohio	Aug. 26—Sept. 1	9 "	
Portsmouth, Ohio	Aug. 26—Sept. 1	3 "	
Salt Lake City, Utah	Aug. 19—Sept. 1	4 "	

Small-pox—Foreign.

Prague, Austria	Aug. 11-18	1 case.	
Pernambuco, Brazil	July 1-15		1 death.
Liverpool, England	Aug. 11-18	2 cases.	
Paris, France	Aug. 5-18		5 deaths.
Gibraltar	Aug. 12-19	1 case.	
Calcutta, India	July 28—Aug. 4		10 "
Madras, India	July 28—Aug. 3		2 "
Formosa, Japan	June 1-30	39 cases.	3 "
City of Mexico, Mexico	Aug. 19-26	8 "	1 death.
Vera Cruz, Mexico	Aug. 19—Sept. 1		2 deaths.
Moscow, Russia	Aug. 5-11	4 "	
Odessa, Russia	Aug. 11-18	8 "	5 "
Warsaw, Russia	Aug. 4-11		6 "
Dundee, Scotland	Aug. 19-25	1 case.	
Glasgow, Scotland	Aug. 17-24	28 cases.	
Corunna, Spain	Aug. 11-18		1 death.
Madrid, Spain	July 28—Aug. 11.		63 deaths.

Yellow Fever.

Bocas del Toro, Colombia	Sept. 1	1 case.	
Cartagena, Colombia	Aug. 3-17	3 cases.	3 "
Panama, Colombia	Aug. 20-27	3 "	1 death.
Batabano, Cuba	Aug. 18-25		1 death.
Havana, Cuba	Aug. 15-20		9 deaths.
City of Mexico, Mexico	Aug. 19-26		1 death.
Vera Cruz, Mexico	Aug. 19—Sept. 1		23 deaths.
Dakar, West Africa	Aug. 15	14 "	
St. Louis, West Africa	Aug. 15	24 "	2 "

Cholera.

Calcutta, India	July 28—Aug. 4		18 "
Madras, India	July 27—Aug. 3		13 "
Yokohama, Japan	July 28—Aug. 4	1 case.	

Plague.

Amoy, China	July 7-28		1150 "
Hong Kong, China	July 14-28		78 "
Calcutta, India	July 28—Aug. 4		41 "
Formosa, Japan	June 1-30	157 cases.	127 "
Formosa, Japan	July 12-26	10 "	8 "
Manila, Philippines	July 10-17		1 death.
Singapore, Straits Settlements	July 14-21		1 death.

The State Medical Association of Pennsylvania.—The annual meeting will be held in Wilkesbarre September 18th, 19th and 20th. The programme includes the reading of the following papers: Address in Medicine, by Dr. Thomas Turnbull, of Allegheny; The Inter-relationship between Cardiac and Renal Disease, with Particular Reference to the Treatment, by Dr. Aloysius O. J. Kelly, of Philadelphia; Some Notes on Treatment of Rheumatism, by Dr. Alfred Stengel, of Philadelphia; Diagnosis and Treatment of Early Stages of Tuberculosis, by Dr. Charles Rea, of York; Treatment of Pneumonia with Anti-Pneumonic Serum, by Dr. Edwin Rosenthal, of Philadelphia; A Case of Meningitis Complicating Pneumonia, by Dr. Thomas C. Ely, of Philadelphia; An Epidemic of Cerebro-spinal Meningitis, by Dr. R. McCormick, of Lancaster; Old-Time Treatment and Result of Typhoid Fever, by Dr. W. A. Hartzell, of Allentown; Lecturing not Teaching, by Dr. T. D. Davis, of Pittsburg; Heat Stroke and Heat Exhaustion, by Dr. C. C. Hersman, of Pittsburg; Human Temperaments and their Application in Medicine, by Dr. J. C. Bateson, of Scranton; Analogies between Nervous and Electric Mechanisms, by Dr. J. Emmet O'Brien, of Scranton; Address in Surgery, by Dr. Walter Lathrop, of Hazleton; Symposium on Typhoid Fever: History and Statistics, by Dr. J. M. Anders, of Philadelphia; Diagnosis, by Dr. J. I. Johnston, of Pittsburg; Complications and Sequelæ, by Dr. H. A. Hare, of Philadelphia; Treatment, by Dr. Alfred Stengel, of Philadelphia; Diet, by Dr. James Tyson, of Philadelphia; The Question of the Enforcement of the Medical Laws of the State of Pennsylvania, by Dr. William H. Dudley, of Easton; Some Medico-Legal Cases, by Dr. T. M. T. McKennan, of Pittsburg; Four Phthisical Remedies which have Proved Most Valuable in my Experience, by Dr. Thomas J. Mays, of Philadelphia; Address in Obstetrics, by Dr. Charles P. Noble, of Philadelphia; Applied Anatomy: Its Value and Place in the Medical Curriculum, by Dr. Gwilym G. Davis, of Philadelphia; Appendicitis and its Treatment, by Dr. M. Price, of Philadelphia; Bloodless Resection of the Rectum by a New Method, by Dr. Ernest Laplace, of Philadelphia; The Surgery of the Gall-Bladder, by Dr. O. C. Gaub, of Pittsburg; A Removable Buried Suture for Abdominal Incisions, by Dr. Evan O'Neil, of Kane; Paralysis of Stomach and Bowel following Laparotomy, by Dr. Frank Alleman, of Lancaster; Tuberculosis of the Bladder, by Dr. F. P. Ball, of Lock Haven; Clinical Notes on Chloretone—Silver Nitrate in Dermatology, by Dr. J. C. Dunn, of Pittsburg; Primary Tubercular Adenitis: Its Surgical Treatment, by Dr. L. J. Hammond, of Philadelphia; Constipation or Obstipation and its Practical Treatment, by Dr. William M. Beach, of Pittsburg; Surgical Diagnosis by the Röntgen Method, by Dr. Charles L. Leonard, of Philadelphia; The Treatment of Œsophageal Strictures, with Particular Reference to the Koenigh Method, by Dr. Charles H. Frazier, of Philadelphia; Address in Hygiene, by Dr. Joseph T. Rothrock, of West Chester; Recent Advances in the Bacterial Purification of Sewage, by Dr. D. H. Bergey, of Philadelphia; The Rôle of Insects in the Transmission of Disease, by Dr. Emma O. Cleaver, of Reading; Humanology or Higher Physiology, by Dr. E. N. Ritter, of Williamsport; Sanitary Milk for Children, by Dr. B. H. Detwiler, of Williamsport; Use and Abuse of Forceps, by Dr. W. Knowles Evans, of Chester; A Further Report on the Cataphoric Treatment of Cancer, by Dr. G. Betton Massey, of Philadelphia; Present Status of Ovarian Organotherapy, by Dr. Wilmer Krusen, of Philadelphia; Nausea and Vomiting of Pregnancy, by Dr. John M. Batten, of Downingtown; Paroyxsmal Delirium—A Short Study in Auto-intoxication, by Dr. W. C. Hollopeter, of Philadelphia; Nephritis as a Complication in Gynæcological Disease, by Dr. George Erety Shoemaker, of Philadelphia; Address in Ophthalmology, by Dr. Charles McIntyre, of Easton; Electro-magnet in Eye Surgery, with Demonstrations, and Report of a Number of Cases, by Dr. Edward B. Heck, of Pittsburg; A Plea for the Earlier Recognition of Squint in Children by the Family Physician, and the Earlier Application of the Methods of Treatment, by Dr. C. A. Veasey, of Philadelphia; The Relation of the Oculist and Optician to the Profession and the Public, by Dr. P. J. Kress, of Allentown; The Climatology of Neurasthenia, by Dr. F. Savary Pearce, of Philadelphia; Traumatic Hysteria, with a Report of Cases, by Dr. Edward E. Mayer, of Pittsburg; Paralysis Agitans without Tremor, by Dr. Augustus A. Eshner, of Philadelphia; The Simplest and Best Method of Removing the Third Tonsil or Post-nasal Adenoids, by Dr. Louis J. Lautenbach, of Philadelphia; The Passing of the Galvano-cautery, by Dr. Charles P. Grayson, of Philadelphia; Leukæmia and Pseudo-leukæmia, with Presentation of Patients, by Dr. Charles H. Miner, of Wilkesbarre; The Operative Treatment of Ugly Ears, by Dr. John B. Roberts, of Philadelphia; Typhoid, by Dr. James Fulton, of New London; Surgical Intervention in Purulent Discharges of the Ear, by Dr. Joseph E. Willetts, of Pittsburg.

Veterinary Surgeons as Food Inspectors.—At the meeting of the American Veterinary Medical Association, recently held in Detroit, a resolution was passed censuring the farcical food inspection of many of the cities of the country and calling for more stringent laws on the subject of pure food. The members of the association declare that the inspection of meat in most of the great cities is under the control of politicians and that meat inspectors are more frequently politicians than experts. The resolution urges that veterinary surgeons be more generally appointed to such positions, as veterinarians only are fitted by scientific training for the responsibilities.

Veterinary Corps for the Army.—At the recent meeting in Detroit of the American Veterinary Medical Association a fund of $250 was appropriated to push pending legislation establishing a veterinary corps in the regular army.

Detroit Medical Society.—Dr. L. M. Murphy, of Louisville, read a paper at the meeting of the Detroit Medical Society, which was held on September 5th. The meeting was followed by a banquet.

Relief for Galveston.—The city of Galveston, Texas, suffered a most appalling disaster on September 8th. A tidal wave eleven feet in height, driven by a tropical hurricane, swept over the city, completely submerging it and drowning probably two thousand people. All the industries of the city have been severely injured and the property loss inflicted is enormous. The receding waters left the city in a most unsanitary condition, and the city authorities have issued an appeal for help, which is being most generously answered all over the United States. There is great need for competent medical aid, and a corps of ten physicians and twenty nurses from Bellevue Hospital volunteered to go to the scene of the disaster and six of the physicians started from this city on Tuesday, September 11th. The physicians in the party were: Dr. Frank L. Christian, Dr. R. H. Cossitt, Dr. William P. Sullivan, Dr. J. K. Train, Dr. Stanhope Cash and Dr. William P. O'Reilly. Dr. Christian is the house surgeon at Bellevue Hospital. The American National Red Cross Society has taken up the work of relief and announces that it will accept and forward donations from all parts of the United States to the sufferers. The mayors of the leading cities have issued calls for subscriptions and large sums have been subscribed by leading bankers and commercial houses.

The New York Quarantine Quarters.—At the last session of the New York Legislature the sum of $80,000 was appropriated for the erection of detention quarters for the accommodation of passengers detained for observation under the quarantine regulations which require that no person coming to this port from tropical countries during the summer months may land until five days shall have elapsed from the time of departure from the point of embarkation. This practically restricts the application of the law to passengers from Cuba, which is the only tropical country well within the five-day limit of distance from New York City. The plans for the new structure, which have been completed and approved, provide for a structure one and a half stories in height and fitted up with the most scrupulous care as to every detail so far as regards the matter of sanitation. The hotel, for it will be such in reality, will be run on the best scale and in the cuisine and appointments will compare favorably with any first-class hotel, with the added advantage that everything will be positively antiseptic in character. The expenses of guests will be covered by a quarantine fee of $6, which will be collected from each passenger and turned over to the quarantine authorities by the steamship companies.

The March of Typhoid.—A mild epidemic of typhoid is registered at Milwaukee,, Wis. All the cases are said to be in the nineteenth ward on the west side. The milk is suspected as the source of infection. The disease is said to have subsequently manifested itself in Merrill Park, Milwaukee, and according to press reports it was found that the cases arose among families supplied with milk by the same dealer who supplied the nineteenth ward.

Louisville Medical Society.—At a meeting of the Louisville (Ky.) Society of Medicine, which was held at the Galt House recently, the following officers were elected: President, Dr. Edward Speidel; vice-president, Dr. J. R. Morrison; secretary, Dr. W. O. Green; treasurer, Dr. William Jenkins.

Hospital Endowments and Buildings.—Under the will of the late Leander W. Kaufman, of Rochester, N. Y., the Rochester City Hospital is to receive a bequest of $5,000. This will was admitted to probate on February 11, 1899, without objection, but notice has just been served that suit will be brought to set this will aside.—Plans have been submitted to the Department of Buildings by Rev. David H. Greer, rector of St. Bartholomew's Church, Madison avenue and Forty-fourth street, New York, for a six-story and basement medical dispensary, to be erected at an estimated cost of $200,000, on the 50x92 plot, 215 and 217 East Forty-second street, which adjoins the mission house built by the church. The first story of the building will be of Indiana limestone and the superstructure of brick. M. L. & H. G. Emery are the architects. Actual work will be begun immediately.—Articles of reincorporation of the Woman's Hospital and Foundlings' Home have been filed with the county clerk at Detroit. The name of the institution has been changed to the Woman's Hospital and Infants' Home.—Work will be begun this month on a hospital at Albuquerque, New Mexico, by the Sisters of Charity. The citizens have contributed $5,000 toward the building fund, while the building site was presented by Father Gentile.—Articles of incorporation have been filed by the Harper Hospital at Detroit.—The plans for an isolation hospital in New Orleans which were drawn up by Dr. Theard, secretary and treasurer of the city board of health, have been approved by the local medical organizations and the board of health and it is expected that they will be adopted by the city council.—The Children's Hospital and Dispensary of Germantown, Pa., was formally opened by Mayor Ashbridge, of Philadelphia, on September 3d. The building, two stories in height, is well adapted for the purposes for which it is intended. The two principal wards, 38 by 40 feet and 18 by 30 feet, have eighteen-foot ceilings. In addition, there are various other smaller rooms, to be utilized for the use of doctors, nurses, visitors, surgical, ear, eye and throat departments, dispensary, office, matron's room, kitchen, etc.—The projected new hospital at New Britain, Conn., has been abandoned on account of lack of funds.—Bids have been received for the erection of new buildings to replace those of the Newton Hospital at Newton Lower Falls, Mass. The new buildings have been designed by Kendall, Taylor & Stevens, conforming to the general scheme of the four new buildings planned by them for the same hospital two years ago. Like them, it is to be of brick, with stone trimmings. It is to go up on practically the same spot—on an isolated hilltop—as the old contagious ward, one end of which was recently burned, and the other end of which will be torn down. As frequently happens in such cases, the building fills a long-felt want, for the burned ward was always overcrowded, and its contagious patients had to be put in other departments. The new building is planned for fifty-two patients, almost double the capacity of the old building, and at a time of stress could easily accommodate more.—The board of managers of the State Hospital at Binghamton, N. Y., will ask for an appropriation of $50,000 this winter to pay for a new hospital building with all the modern improvements.—A new heating plant will be installed in a building to be erected for the purpose at the Williamsport, Pa., hospital.—It is proposed to establish an emergency hospital at Oakland, Cal., to replace the railroad men's hospital, which was recently removed from that place to San Francisco.

The Post-graduate Medical School of Chicago has increased its stock from $20,000 to $40,000.

Society Meetings for the Coming Week:

MONDAY, *September 17:* New York Academy of Medicine (Section in Ophthalmology and Otology); Hartford, Connecticut, Medical Society; Chicago Medical Society.

TUESDAY, *September 18:* New York Academy of Medicine (Section in General Medicine); Buffalo Academy of Medicine (Section in Pathology); Ogdensburgh, N. Y., Medical Association; Syracuse, N. Y., Academy of Medicine; Medical Society of the County of Kings, N. Y.; Baltimore Academy of Medicine.

WEDNESDAY, *September 19:* Medico-legal Society, New York; Northwestern Medical and Surgical Society of New York (private); New Jersey Academy of Medicine (Newark).

THURSDAY, *September 20:* New York Academy of Medicine; Brooklyn Surgical Society; New Bedford, Massachusetts, Society for Medical Improvement (private); Medical Society of City Hospital Alumni, St. Louis; Atlanta Society of Medicine.

FRIDAY, *September 21:* New York Academy of Medicine (Section in Orthopædic Surgery); Clincal Society of the New York Post-graduate Medical School and Hospital; Baltimore Clinical Society; Chicago Gynæcological Society.

Births, Marriages, and Deaths.

Married.

EISENHARDT—KLAUS.—In Elizabeth, N. J., Tuesday, September 4th, Dr. William G. Eisenhardt to Miss Mary A. Klaus.

MANSUR—WORTHEN.—September 6th, Dr. Leon W. Mansur and Miss Irene Chamberlin Worthen.

McKeen—Forster.—At Milton, September 5th, Sylvester F. McKeen, M. D., of Allston, Mass., and Teresa, daughter of the late Edward J. Forster, M. D., of Boston.

Palmer—Greene.—In Griegsville, N. Y., Wednesday, September 12th, Dr. William E. Palmer to Miss Zillah M. Greene.

Patterson—Stafford.—In Nebraska City, Neb., on Wednesday, September 5th, Dr. Franklin Patterson to Miss Mertie May Stafford.

Died.

Amick.—In Cincinnati, O., Wednesday, August 29th, Dr. W. R. Amick, in the fifty-first year of his age.

Burchard.—At Nagasaki, Japan, on Sunday, September 2d, Dr. Easton Burchard, in the thirty-fifth year of his age.

Crockett.—In Boston, Mass., September 4th, Dr. Frederick Crockett, in the sixty-fourth year of his age.

Da Costa.—At Villanova, Pa., Tuesday, September 11th, Dr. Jacob M. Da Costa, in the sixty-seventh year of his age.

Kelliher.—At Hingham, Mass., August 30th, William Breen Kelliher, only child of Dr. M. W. and Annie B. Kelliher, of Pawtucket.

Sams.—In Beaufort, S. C., on Saturday, September 1st, Dr. McLonie M. Sams, in the eighty-fifth year of his age.

Seymour.—In Pittston, Mass., on Thursday, September 6th, Dr. Jasper J. Seymour, in the sixty-seventh year of his age.

Sullivan.—In Malden, Mass., Thursday, September 6th, Dr. John L. Sullivan, in the seventy-third year of his age.

Ward.—In Newark, N. J., Saturday, September 1st, Dr. William S. Ward, in the seventy-ninth year of his age.

Obituaries.

JACOB M. DA COSTA, M. D., LL. D.,

OF PHILADELPHIA.

Dr. Da Costa, who died on September 11th, was a native of the Island of St. Thomas, Danish West Indies, where he was born in 1833. His literary education was received in Germany and his medical studies were carried on at the Jefferson Medical College in Philadelphia, from which institution he graduated in 1852. After taking his degree he returned to Europe and spent two years in attendance at the hospitals and medical schools of Vienna and Paris. In 1854 he returned to Philadelphia and entered general practice.

From that time until a very recent date he has been a prolific and valued contributor to medical literature. Among the earliest of his contributions to attract attention were monographs on *Epithelial Tumors and Cancer of the Skin,* published in 1852, and on *An Inquiry into the Pathological Anatomy of Acute Pneumonia,* which appeared in 1855. The list of his writings as it appears in the *Index Catalogue of the Library of the Surgeon-general's Office,* embraces some fifty-four titles. His most important work was a treatise on *Medical Diagnosis,* the eighteenth edition of which was published in 1895, and which has also been translated into German.

Dr. Da Costa's mind was stored with a rich fund of varied information, and his occasional addresses have been accorded much praise as productions of great literary merit. Among these addresses, that on Tendencies in Medicine, delivered as President of the Association of American Physicians at Washington in 1897, and on The Scholar in Medicine, delivered at Harvard in 1897, attracted especial attention.

He was at different times attending physician at the Episcopal Hospital, at the Pennsylvania Hospital, and at the Philadelphia Hospital. He became lecturer on clinical medicine at Jefferson Medical College in 1864 and professor of the theory and practice of medicine in 1864, and at the time of his death he was emeritus professor of the practice of medicine and clinical medicine in that institution.

Pith of Current Literature.

Glasgow Medical Journal, August, 1900.

Evolution and Natural Selection: Their Aspects and Prospects. By William Wallace, M. A., M. B., C. M.—A summary of the author's general thesis may, perhaps, best be given by quoting the following words of the author: "The principal words in general to indicate the process of coming into being of organic entities, are genesis, evolution, descent, development, and genealogy. The genetic affinity or descent of an organic being is determined by tracing its antecedents in time past, and every organic being has of necessity a genealogy. While we know of no organic being without a genealogy, it is also impossible to conceive of such without a genealogy. And this leads us to restate the axiom that the rest of the universe is the complement of any part of itself. Genetically, therefore, every organism is the genetic complement of the rest of the universe, so that, expressed in terms of duration of time, every organism continues to exist in virtue of the rest of the universe continuing to exist, not in virtue of a quality of a part, but in virtue of the organic and reproductive nature or preexistence of the whole.

"It is scarcely possible to exaggerate the importance of recognizing the truth of this axiom of philosophic biology—that the universe is not only an organic, but also a genetic, whole. It is carefully to be guarded against the notion that any absolute betterment is taking place in Nature, and whilst a betterment, progress or civilization may be attributed to human affairs and purposes, that such is applicable to Nature at large is a misconception, and has no evidence as a scientific conception. Even in human affairs it is impossible to climb without a footing, but the goal exists prior to the ascent. But in science the proper effort and the attainment are one and the same."

Notes of Eight Labors Complicated by Tumors. By Robert Jardine, M. D.

Case of Superficial Emphysema Occurring during Labor. By J. Barr Stevens, M. D.

Two Cases Bearing on Menstruation. By E. Arthur Gibson, M. D.—In the second case, that of a married woman, both ovaries and tubes, being found diseased, were removed *per vaginam* in 1897. The patient had menstruated regularly ever since, and her sexual appetite was in no way impaired.

Melanotic Sarcoma of the Choroid. By John Rowan, M. B., C. M.

Boston Medical and Surgical Journal, September 6, 1900.

Notes on Dermatitis Venenata. By Dr. George F. Harding.—The number of substances which can produce this condition is very large, and the author wisely refrains from giving a complete list. The symptoms are familiar. Among the unusual causes have been found tincture of arnica, the so-called balm of Gilead, kerosene, arsenic, the jelly-fish, tar, and chrysarobin.

Notes on the Treatment of Ataxic Patients by Coordination Exercises, with the Demonstration of Two Patients. By Dr. James J. Putnam.

Philadelphia Medical Journal, September 8, 1900.

The Ætiology and Pathology of Empyema. By Dr. Joseph McFarland.—The occurrence of empyema after injuries of the chest wall is explained by the presence of an external or pulmonary channel through which the infectious agent enters. In connection with chest punctures as a cause of empyema, it may be mentioned that of 151 cases of aspiration studied by Griffiths (*British Medical Journal,* 1887, i, p. 831), in only two cases did the fluid become purulent. These were complicated with tuberculosis and erysipelas respectively. Local disease of the tissues contiguous to the pleura is a frequent cause of empyema. Among the rarer causes are carious ribs and vertebræ, perforation of the diaphragm, the bursting of an hepatic abscess into the pleural cavity, and carcinoma of the œsophagus.

No one specific micro-organism covers all the various cases of empyema, and in each particular condition the micro-organisms present are easily accounted for by the primary condition. The bacteria most frequently discovered in the pus of empyema are the streptococcus, pneumococcus, tubercle bacillus, influenza bacillus, Friedländer's bacillus, and the *Bacillus coli communis.*

Prostatic Calculus. By Dr. John C. Spencer.—A clear distinction should be drawn between essential and adventitious, or so-called exotic, calculus of the prostate. The essential, of course, has its origin in the gland substance, while the adventitious has its origin in the urinary bladder, for instance. The article under consideration consists mainly of a résumé of the literature, together with the history of a case. One striking fact illustrated in the case is the ease with which a fairly large calculus may be completely overlooked.

Heroine in the Treatment of Phthisical Cough and Whooping-cough. By Dr. M. Loewenthal.

Note on the Frequency of Renal Casts without Albuminuria. By Dr. C. F. Martin.

A New Forceps for Holding Slides in Staining. By Dr. Thomas S. Kirkland, Jr.

Legal and Judicial Disagreement and the Shortcomings of Medical Witnesses. By Dr. Irving C. Rosse.

Rheumatic Fever. By Dr. J. Newton Hunsberger.

Medical News, September 8, 1900.

Trophic Changes in Consumption: A Contribution to the Symptomatology of the Disease. By Dr. Henry Herbert.—As the author demonstrates, the area involved by the symptomatology of consumption is very extensive, and nearly every organ may be affected, either directly by germs or indirectly in the form of so-called trophic changes, which may be caused by a virus, soluble protein substances circulating in the blood. The pathological importance of some of these trophic changes is increased by the fact that they appear on the same side of the body with the diseased lung. Four illustrative cases accompany the article.

The Effect of Flashes of Electric Light on the Eye. By Dr. Dunbar Roy.—Several examples are given of which the case of Mr. H., twenty-four years old, a hotel night clerk, is typical. There was no history of syphilis or rheumatism or past sickness of any sort. But, working in the constant glare of incandescent light, he came to the author complaining of a slight irritation in his left eye. Upon examination the eye showed a contracted pupil and a very faint zone of circumcorneal congestion. Vision was normal, but photophobia was present. Upon using atropine, incipient iritis was diagnosticated. Dilatation *ad maximum* was impossible, though there seemed to be no points of adhesion. The iridal muscles appeared perfectly normal. Atropine solutions, hot fomentations, and blisters to the temples relieved the patient. Leeches finally produced a most rapid amelioration of the symptoms.

Graves's Thyreoid Disease. By Dr. O. T. Osborne.

The Status of General Anæsthesia in 1900. By Dr. M. L. Maduro.—Nitrous oxide and ether would seem to be the anæsthetics most free from risk and danger. The author believes that too much stress cannot be laid on professional anæsthetization, and the evils from unskilled work will be lessened when "specialists in anæsthesia" are a distinct representative body.

The Physiology of Sleep. By Dr. N. H. Stoner.

Journal of the American Medical Association, September 8, 1900.

Serumtherapy in Croupous Pneumonia. By Dr. J. C. Wilson.—A review in brief of this interesting subject, tending to show that with the progress of science we are becoming better acquainted with the pneumococcus of Fraenkel and Weichselbaum. The studies of Washburn, Pane, McFarland, and others are referred to, and eighteen cases treated by pneumococcus serum are commented upon and analyzed.

Pseudo (?) or Modified (?) Small-pox. By Dr. T. J. Happel.—The initial fever, backache, and headache are the same as in variola vera, but all eruptive diseases have the same train of symptoms to a greater or lesser degree. Nausea and vomiting and an inflamed mucous membrane commonly characterize the initial stage of variola, but in this epidemic (that of 1899) these have been absent. The hemispherical eruption in the pustular stage of variola and the conoidal eruption in this are points of distinction. In fact, a complete diagnosis is plotted out by the author. Yet, in answer to the question, "What do you call the disease?" he frankly states that he does not know.

Pseudo, Modified, or True Small-pox—Which is It? By Dr. H. M. Bracken.

Typhlitis, Perityphlitis, and Appendicitis in Infancy and Childhood. Causation and Relative Frequency. By Dr. Joseph Henry Byrne.—A text-book article of moderate interest, with report of a case in which expression of hardened fæcal masses by digital manipulation was practised, and particular attention is called to this fact.

Traumatic Insanity, with Report of a Case. By Dr. E. G. Carpenter.—The case is given in detail and goes to prove that conditions already present may predispose to the determination of insanity consequent on an injury. The insanity should speedily follow the injury, though the extent of the concussion may be a determining factor. The locality of the injury of the cranium may be an important consideration. An injury to the base of the skull is most prone to cause subsequent mental disturbance.

and the middle fossa is more frequently involved than the other parts.

Measurements of Chicago School Children. By Dr. W. S. Christopher.

Exophthalmic Goître. By Dr. F. W. Higgins.—The author's feeling in regard to this disease is that we should attack its secondary manifestations. He gives in illustration the case of a young wife who felt that she would die if a burglar entered the house. She did die when she mistook her husband for one. In such a predisposed person, sudden emotion produces changes in the heart, digestion, action of the kidneys, circulation in the thyreoid, size of the pupil, character of the breast milk, etc. Now, the author maintains with much cogency that should any one of these physical manifestations assume a permanent character through inherent predisposition, a vicious circle would be established in which the other symptoms would tend to be constantly reproduced. He admits that this is a return to the nervous pathology, and is at variance with the prevailing explanation of disease of the thyreoid gland, but he believes he is right in stating that, though the thyreoid trouble is the main factor in exophthalmic goître, it is only one of a chain of factors.

Medical Record, September 8, 1900.

Dilatation of the Cervix by Means of a Modified Champetier de Ribes Balloon. By Dr. James D. Voorhees.—The balloon as modified is conical in shape, impervious, and inexpansible. It should be strong enough to resist uterine and abdominal contraction and also to stand traction on the tube. The material is thin canvas firmly sewed, covered by rather thick rubber. It comes in four sizes: No. 1 dilates to two fingers plus; No. 4 to almost five fingers. The two others are intermediate in size. They are best kept in talc or lycopodium. The method of introduction suggests itself; the ordinary antiseptic precautions should be observed, and no balloon should be left in longer than twenty-four hours, as the danger of infection is great. When a balloon comes out, an examination should be made, to see that the cord has not come down. The results in seventy-two cases have been gratifying, and seem to justify the author's conclusion that dilation by this method is readily and rapidly accomplished. The operation is easy and not dangerous, while the uterine contractions always start after the introduction of the balloon into the uterus. In placenta prævia the balloons control hæmorrhage and diminish fœtal mortality.

Observations on the Gastric Functions before and after Gastro-enterostomy. By Dr. Charles S. Fisher.—The observations in four cases are given, and, as the author says, it would be impossible to draw very general conclusions from so limited a number.

The result of the cessation of the spasm of the sphincter pylori—the immediate effect of a gastro-enterostomy in cases of benign pyloric stenosis—is a feeling of relief. This is apt to produce an exaggerated idea of the ultimate effect of the operation upon the various gastric functions. Hence a proper valuation of this operation can be obtained only by prolonged post-operative observation; in addition to observation for months before, of the gradual functional changes which have necessitated the operation.

Such patients often overestimate the capabilities of the stomach after the operation, and indulge in dietetic excesses; and, as a consequence, the temporary return of the dyspeptic symptoms causes the most intense depression. This mental depression is very antagonistic to the ultimate repair of the gastric functions in certain cases; consequently the absolute control of the patient is most desirable.

A New Physical Sign in Dislocation of the Heart; Gastrectatic Dyspnœa and Pseudo-angina. By Dr. Albert Abrams.—"When the heart is dislocated upward by a dilated stomach, a patch of dullness and even flatness may be detected in the interscapular region on the left side, about midway between the vertebral column and the internal border of the scapula." "It disappears" "when the patient leans forward," reappears when the erect posture is again attained, and "is greatly increased by directing the patient to bend backward." This is the new sign.

Two Cases of Intestinal Obstruction following Vaginal Hysterectomy, and One after Pelvic Abscess, with a Secondary Operation in each Case. By Dr. A. Goldspohn.

Lancet, August 25, 1900.

The Cellular Pathology of To-day. By Sir J. Burdon Sanderson.—The writer calls attention to the progress made in pathology in the last fifty years. At the time that Virchow originated the doctrine of "cellular pathology" the histological characters of morbid processes were the subjects of special study. Now it is the microbe and the chemical functions of the cells that are being specially investigated. So many of the functions of the cell have been found to be due to the agency of enzymes that it is a question whether all its functions are not so performed. Each chemical function of the cell as seen *in vivo* can be reproduced *in vitro*. In this way we have been able to study the relations of these processes to external conditions which have nothing to do with their vital origin.

More progress has been made in the investigation of isolated cells, such as the blood corpuscles and adenoid cells, than in the constituent cells of organs. The question of hæmolysis is taken up, and attention is called to the fact that bacteriolysis and hæmolysis are identical, both being due to the action of a lytic substance in the serum, and, further, that this substance (Ehrlich's "complement") acts only in the presence of a second substance (Ehrlich's "immune body"). The ferments are the instruments by which the constituent cells of different organs influence each other for good or evil without coming into contact. In all dystrophic conditions we have to do with disorders of the chemical functions of cells. The principles of Virchow's cellular pathology remain unchanged; we have only to add the newer methods which the progress of knowledge has placed within our reach.

On the Pathology and Therapeutics of Scurvy. By Dr. A. E. Wright.—The writer reports the results of a series of blood examinations, going to support the correctness of his views as to the nature and therapeutics of scurvy. He holds that scurvy is that condition which supervenes upon the ingestion of a considerable excess of mineral acids over bases, *i. e.*, a condition of acid intoxication, so that the proper prophylaxis and treatment of the condition would consist in the administration of salts of oxidizable organic acids as leading to the restoration of the normal alkalinity of the blood. In a series of seven cases of scurvy the alkalinity of the blood was determined by means of the writer's method of hæmalkalimetry before, during and after treatment, with sodium lactate and similar substances. In each case the alkalinity of the blood was found to be strikingly reduced; upon the administration of sodium lactate (45 to 75 grains daily), the condition of the patient improved at once, with a corresponding rise to normal of the alkalinity of the blood.

Post-mortem examinations in the two fatal cases, in which the patients were practically moribund when first seen, showed nothing characteristic beyond absence of rigor mortis.

Eye Disease in Egypt. By K. Scott, F. R. C. S.—The writer's article is based upon a table of 5,358 cases of eye disease seen by him in Egypt from 1891 to 1898. Of these, the largest number were diseases of the cornea, due mostly to the use of various dry powders (*sheeshm*), and causing keratitis, symblepharon and pterygium. In twenty-eight per cent. of the cases the eyelids were affected, and the conjunctiva in thirteen per cent. The number of operations performed in these cases was 7,081. From his experience the writer holds that the occurrence of sympathetic iritis is a very greatly overrated danger. He also states that, contrary to the general belief, the transmission of infection by flies is very rare in cases of eye disease. Flies cannot enter the normal conjunctival sac, which is further protected by its inherent germicidal properties.

The Pathology of Gout. By Sir Dyce Duckworth.—Gout depends on an inherent vice of nutrition, which is manifested by imperfect metabolism in various organs, presumably the kidneys and probably the liver, leading to the excessive formation of uric acid and its retention in the blood. This vice or defect may be primarily acquired or transmitted as a fault to descendants; it is not due to structural alteration of the tissues, but to chemical changes possibly under neurotrophic influence. Crises of gout are due to alteration in the solubility of the uratic salt in the blood, whereby irritating crystals of biurate of sodium are precipitated in various parts of the body. Such a crisis is determined by nervous influences, probably dominated from a bulbar centre. This central neurosis is an essential and transmissible feature in the pathogeny of gout, and pertains to the arthritic diathesis generally. Uricæmia alone is inadequate to induce a gouty crisis. Uratic deposits may occur to an enormous extent without the occurrence of pain or paroxysms. Since hæmic changes and a neurotrophic disturbance act as the pathogenic factors, gout is to be regarded as a neuro-humoral malady.

Diphtheria in the Horse. By Dr. L. Cobbett.—The writer reports a case of diphtheria occurring in a pony, with infection of the child of its owner. Bacteriological examination showed the presence of typical virulent diphtheria bacilli. This observation is of practical importance, as it points out a hitherto unsuspected channel of infection. Further, it may explain the presence of diphtheria antitoxine in horses which have never been injected with diphtheria toxine, a fact which is well known. Such horses may have previously suffered from diphtheria with resulting immunity, and the formation of antitoxic substances in the blood.

The Increase and Distribution of Cancer in Eastern Essex. By A. M. Scott, M. B.

The Microscopic Appearances of the Motor Ganglion Cells in Five Cases of Peripheral Neuritis. By Dr. W. K. Hunter.—The writer has examined the motor ganglion cells in five cases of peripheral neuritis, with a view to determining whether peripheral degeneration of the nerve fibre is invariably followed by degeneration of the nerve cell. In three of the five cases the motor ganglion cells showed marked chromolytic changes and the presence of yellow pigment granules. In the fourth case the changes in the cells, while distinct, were slight. In the fifth case, one of old lead poisoning in which the neuritis had been almost entirely recovered from, no changes were to be observed in the motor ganglion cells.

Some Notes on 100 Cases of Enteric Fever Treated at No. 6 Military General Hospital, Nauuwpoort, South Africa. By D. Parker, M. B.—The routine treatment in these cases was the administration of five minims of carbolic acid in water three times a day. Brandy seemed to be the most useful stimulant. Of the cases, twelve ended in death. Hæmorrhage took place in twelve cases. As regards the value of antityphoid inoculation, the writer is of the opinion that as at present practised it is not a striking success. The death rate among the inoculated patients was only 2.3 per cent. lower than that of the uninoculated. The average temperature for the first ten days was a little lower, but it was 5.4 days longer before finally becoming normal.

British Medical Journal, September 1, 1900.

Discussion on the Treatment of Malaria by Quinine. By Dr. A. Duncan and others.—The prophylactic action of quinine formed the chief subject of this discussion. The majority of those taking part agreed as to its value as a prophylactic against malarial disease in amounts of from four to six grains a day. No bad effects were experienced from its use over long periods of time. Dr. W. J. Buchanan administered quinine to 1,600 men for four months of the year for five years, with no bad results whatever. The evidence as to the value of arsenic and other drugs as prophylactics is conflicting; as curative agents none of them ranks with quinine.

On the Metamorphosis of the Filaria Sanguinis Hominis in Mosquitos. By S. P. James, M. B.—After briefly reviewing the work of Manson and Bancroft upon the development of filariæ in the *Culex* genus of mosquito, the writer reports his own observations as to their metamorphosis in various species of the *Anopheles* mosquito, notably *Anopheles Rossii.* To attain their final actively-moving stage in *Anopheles Rossii,* the filaria requires from twelve to fourteen days. The young filariæ are found in the tissues of the thorax, in those of the head and neck, and in fewer numbers in those of the abdomen. On careful dissection, two or three filariæ can almost always be found in the immediate neighborhood of the proboscis, and sometimes a large and actively-moving filaria will be found within the proboscis itself, so that one can scarcely fail to agree with Dr. Bancroft that "young filariæ may gain entrance to the human host whilst mosquitos bearing them are in the act of biting. The young filariæ in their final stage are from 1-14th to 1-16th of an inch long and 1-800th of an inch thick. They can move about in the tissues of the mosquito by boring their way from one place to another. In water their powers of locomotion are very limited, so that it is probable that the filariæ pass directly from the mosquito to man without first having to exist in water.

Note on the Ætiology of Filariasis. By Dr. J. Maitland.—The writer calls attention to the fact that, while there is some presumptive evidence of direct inoculation of filariasis from the mosquito to man, yet many well-attested facts afford evidence of an opposite character. As is well known, the white races are comparatively immune to the disease. In an experience of twenty-four years the writer has never heard of a case of filariasis in a well-to-do European in India. Yet the European is freely exposed to the bites of mosquitos between sunset and bedtime; indeed, they are more eagerly attacked than natives. Water has hitherto been considered to be the probable medium by means of which the parasite reaches the interior of the human host, and the writer is in favor of this view. He has noted several instances in which certain communities having the same supply of drinking water have suffered severely, whereas other communities, obtaining their drinking water from a different source, have suffered much less severely.

The Hot Weather Diarrhœa of India. By Dr. W. J. Buchanan.—The writer calls attention to a very severe form of diarrhœa with watery stools, somewhat resembling cholera, which occurs in India during the summer. The onset is sudden, and the patient soon becomes collapsed, with a shrunken cyanotic appearance. In old or feeble persons the result may be rapidly fatal; usually the violence of the attack grows less in the course of the day and a mild reaction sets in during which the temperature rises to 101° or 102° F. Food is interdicted for the first thirty-six hours, and when the diarrhœa moderates chlorodyne or camphoridyne is given, with small doses of brandy. The bacterial cause may be the *Bacillus enteritidis* of Newsholme. Among the exciting causes are badly cooked or hastily eaten food, unripe or over-ripe fruit, raw grain, over-indulgence in alcohol, etc. These cases in India must often need to be diagnosticated from cholera; in doing so we must consider the presence or absence of cholera in the neighborhood, the low death-rate for diarrhœa, and the absence of cramps and complete collapse in diarrhœa.

The Diseases of Goorkhas. By Dr. A. Duncan.—The writer has been struck by the intractable character of malarial fevers as occurring among Goorkhas. Quinine often is of no avail when given by the mouth, whereas per rectum it frequently cuts short the disease. Pulmonary tuberculosis is of apparently sudden onset, and always makes rapid progress. Goorkhas are also very prone to mumps and to ophthalmia, whereas typhoid fever rarely occurs among them.

A Discussion on Ankylostomiasis. (1) G. M. Giles, F. R. C. S.—After reviewing our knowledge of this subject up to 1889, the writer states that he found sexually mature worms in an ordure pit in Assam and was led to attempt to cultivate them. This he did in river sand and water, and also succeeded in cultivating them from the eggs contained in the dejecta from patients with ankylostomiasis. When full-grown, the worm is 1-24th inch in length and 1-300th inch in diameter. He has never found the worms in drinking-water, but only in foul soil, and believes that soil carried to food by unwashed hands is the common source of infection. Wherever this disease is common a large proportion of the healthy population harbor the worm. We are ignorant of the way in which the parasite causes the characteristic anæmia. The mere loss of blood is usually insufficient.

(2) C. F. Fearnside, I. M. S., found the ova of ankylostoma in the stools of 462 out of 678 convicts from the Northern Circars and the East Coast of India. Of those affected with ankylostoma, about seventy per cent. were in good health. The better hygiene and cleaner food of the prison lowered the percentage from sixty-eight to fifty-eight per cent. He did not find the use of thymol to be of much value; in thirteen cases in which it was administered, the ova in the stools were as numerous at the end of treatment as at the beginning.

(3) Dr. L. Rogers states that the confusion with regard to this disease has arisen owing to the loose way in which the term ankylostomiasis has been used. The term ankylostomiasis should be limited to a disease characterized by anæmia produced by long-continued small losses of blood through the gastro-intestinal mucosa, caused by the presence of several hundreds of ankylostomata acting for many months or by a still larger number acting for a shorter time. In ordinary chronic malarial disease the number of red corpuscles rarely falls below 2,000,000 to the c. mm., while in ankylostomiasis it is usually below 1,500,000. The hæmoglobin index is also much lower in ankylostomiasis. Where the two diseases are present in the same individual the blood-count does not fall so low. As regards treatment, iron should be given in cases of ankylostomiasis, while arsenic is indicated in chronic malarial poisoning.

Tropical Liver Abscess. By Dr. K. MacLeod.—The writer considers the management of lung lesions consequent on liver abscess, and states that where the abscess discharges directly into the pleural cavity the one rule of treatment is to make a free opening into the pleural cavity, removing a portion of the rib if necessary, and to establish efficient drainage. When the lung tissue is involved and abscess formation has taken place, the case should be treated as one of lung cavity and the exploration and incision made into the chest, and not by way of the liver. This is for the reason that the liver abscess has usually begun to become encysted and contracted by the time the disease of the lung is under full headway. Too much reliance must not be placed in diagnosis upon the mere physical characters of the sputum. In cases with so-called "hepatic" sputum, the liver has sometimes been found to be uninvolved.

Subhepatic Abscess. By J. Cantlie, F. R. C. S.—By a subhepatic abscess is meant a collection of pus on the lower surface of the liver, between the liver and its capsule, beginning probably as a lymphangeitis. The pus is sterile and amœbæ coli do not appear in it until some days after the abscess is opened. Positive evidence of this affection can be established only during an operation. During life it is usually taken for gall-bladder inflammation. The prognosis is generally good. The treatment consists in tapping with a large trocar and drainage with a large tube. The writer has seen only two or three cases.

The Diagnosis and Surgical Treatment of Tropical Liver Abscess. By W. J. Smith, F. R. C. S.—The writer reviews the progress made in the surgical treatment of abscess of the liver, and describes the various clinical signs of this affection. The diagnosis can be made certain only by exploratory puncture or exploratory laparotomy. Of the two, he prefers the former, and has never seen any bad results from its use. He prefers the operation of transpleural section to abdominal section, and has little faith in suturing of the pleura or diaphragm. He sees no reason why surgeons should not operate in cases in which the patient is still suffering from dysentery.

Abscess of the Left Lobe of the Liver, with Particular Reference to its Amœbic Causation. By P. W. Basset-Smith, Surgeon, R. N.—The writer reports a fatal case of this affection in which the points of special interest were the occurrence of dysentery in England, years after the patient's leaving a foreign station, the position of the abscess in the left lobe of the liver and of an abscess in the right lung, which did not directly communicate with that of the liver. The infection of the lung through the serous membrane without perforation is important. Amœbæ coli did not appear in the pus from the abscess until two days after the operation.

Some Suggestions for the Improvement of Sanitary and Medical Practice in the Tropics. By R. Ross, M. R. C. S.—Among the suggestions made by the writer are improved instruction in parasitology and tropical medicine, improved access to medical literature, better microscopes and other apparatus, carefully compiled medical and municipal sanitary regulations, and the organization of scientific research.

Notes on a Case of Black Water Fever, with a Description of the Microscopical Appearances. By Dr. George Thin.—The writer reports the results of his examination of the tissues in a case of black water fever. Sections of the spleen, liver, and kidneys showed many cells containing greenish-yellow pigment. Its appearance and distribution were identical with that found in four fatal cases of acute pernicious malarial fever and another case of black water fever. He thinks the case one of acute malarial fever, and states that the changes in the epithelial cells of the kidney illustrate the powerful effect of a toxine generated by the parasite. This toxine is supposed to destroy the red corpuscles and to set free hæmoglobin in the blood, while there is concomitant hæmoglobin uria.

The Cyprus Sphalangi and its Connection with Anthrax. (Called Locally "Sphalangi Bite"). By G. A. Williamson, M. B.—The sphalangi of Cyprus is an insect resembling an ant of medium size. A full account of it by Professor Trail, of Aberdeen, is given. Its sting is supposed to be very dangerous by the people of Cyprus. This is due to the fact that anthrax is a very common disease among the animals on the island, and very frequently anthrax bacilli are carried by the insect from the carcasses of such animals to human beings. A case of severe sphalangi disease is simply one of anthrax. Almost all the cases end in recovery.

A Discussion on Yaws. By Jonathan Hutchinson, F. R. C. S., and others.—Mr. Hutchinson held that yaws and syphilis were identical, in which view he was opposed by all the others who took part in the discussion.

A Discussion on the Nature and Varieties of Pneumonia in Children. Opened by Dr. N. Tirard.—All evidence, clinical as well as bacteriological, goes to show that pneumonia is the result of a general infection, comparable to one of the infectious fevers. It is very doubtful whether pneumonia is ever contagious in the ordinary sense of the word. The very high temperatures sometimes observed may be due to retention of a toxine rather than its elimination in the exudate.

Hypertrophy and Dilatation of the Colon in Infancy. By Dr. W. S. Fenwick.—The writer reports a case of enormous hypertrophy and dilatation of the colon occurring in a child aged one year and five months. The child had been constipated since it was a few weeks old. The abdomen began to swell at the age of nine months, since which time it had steadily enlarged. The child died a month after entering the hospital, and a post-mortem examination disclosed the colonic dilatation and hypertrophy. The writer has been able to collect only sixteen cases of this affection occurring in infants. The common cause, in the writer's opinion, is spasm of the sphincter ani, with resultant hypertrophy, analogous to that of the œsophagus following spasm of the cardiac orifice of the stomach. If neglected, the disease appears to be invariably fatal. The constipation should be overcome, any spasm of the sphincter due to fissure, etc., dealt with, and, if signs of hypertrophy of the bowel are already present, the only hope of a cure lies in surgical interference.

A Discussion on Enlargements of the Spleen in Children. By Dr. S. West, R. M. Leslie, M. B., and others.—The various forms of splenic enlargement in children are discussed, special attention being paid to the splenic anæmia of infants and the relation it bears to rickets and syphilis. Syphilis is frequently, and rickets occasionally, associated with splenic anæmia. In neither case is the association constant, and they can neither of them be the sole cause. It is unknown whether the anæmia and splenomegaly stand in the relation of cause and effect, or vice versa, or if they are both secondary to some primary cause.

Congenital Hypertrophic Stenosis of the Pylorus. By J. H. Nicoll, M. B.—The writer reports a case of the above-mentioned affection occurring in an infant aged five weeks. All food taken into the stomach would be ejected within twenty minutes. The child became emaciated, and the outline of the dilated stomach was plainly visible. An operation was advised, and when the abdomen was opened the pylorus was found represented by a bulky ring of fibromyomatous tissue. This was dilated by means of Loreta's operation, and the infant made a perfect recovery, the previous obstruction being completely relieved. A year after the operation the child remains in perfect health.

The writer reviews the symptoms, morbid anatomy, and treatment of the affection. Some thirty cases are on record. There are various theories as to its causation, none of which is perfectly satisfactory.

An Explanation of the Cause of Infantile Scurvy, with Suggestions as to its Prevention. By Dr. C. E. Corlette.

A Discussion on Lateral Curvature of the Spine, Flat-foot, and Knock-knee. By J. J. Clarke, M. B., C. Williams, F. R. C. S., and others.

Ambidexterity: A Plea for its General Adoption. By E. N. Smith, F. R. C. S.—After calling attention to the various advantages of ambidexterity, the writer states that the preponderating use of the right side of the body is actually harmful. The right side of the brain, controlling the left side of the body, is under-developed, while the left brain is overworked. Further, one-sided use of the body has much to do with the production of various deformities, notably lateral curvature of the spine.

An Analysis of a Series of Cases of Infantile Paralysis, with Some Notes on Treatment. By M. Little, F. R. C. S.—This article deals with all the cases of infantile paralysis (115) seen by the writer during the past three years. The majority occurred between the ages of one and two years, though almost as many occurred during the first year. Fifty-five cases were in males, and sixty in females. The histories were mostly negative; in forty-one cases there was no definite attack of paralysis. Tables are given of the various deformities observed and of the principal muscles and groups of muscles affected. The majority of the cases were treated by subcutaneous tenotomy, correcting splints, and massage.

Lyon médical, August 19, 1900.

A Case of Progressive Pernicious Anæmia.—M. F. Barjon and M. A. Cade report a case of this disease. The last examination showed but 3,000 white cells to a cubic millimetre of blood. Uninuclear leucocytes were, however, more abundant. The sigmoid flexure, too, showed a cicatricial stenosis of a non-specific character. The liver presented a lobular stasis, a fatty degeneration, and an increased pigmentation of the cells. There were also inflammation lesions, and the interlobular spaces were filled with white cells, as were the dilated capillaries. These inflammatory changes seemed to be of a part with the intestinal lesions. This evidence of infection seems to explain some of the symptoms of the disease, and points to preceding gastro-intestinal disorders as causative factors—chronic diarrhœas, typhoid fever, severe dyspepsias, or intestinal invasion by parasites. The diarrhœas, the temperature early in the disease, and the enlarged spleen are thus explained on the theory of gastro-intestinal toxic infection as a cause of the disease.

The Pharmacodynamics of Salicylate of Methyl and its Sodium Salt (*concluded*).—M. P. Catin and M. L. Ginnard conclude, as a result of their study, that these salts present all the physiological properties of the salicylate of sodium. They affect the cardio-vascular apparatus of animals only in toxic doses. Congestion of the lung followed only poisonous doses, as did disturbance of the nervous system. Animals with endocarditis were seriously affected by the drugs. Therefore, in treating patients with a recent or old endocarditis, with pulmonary congestion, or with nervous disease, the administration of these salts must be carefully watched.

Revue de médicine, August, 1900.

Sadism in the Bull Ring.—M. Ch. Féré narrates the case of a hysterical woman, with many stigmata, whose sexual feelings were excited only in dreams. While watching a bull-fight, without being attracted toward any of the toreadors, she experienced an orgasm, which was repeated subsequently in a dream about once a month.

Diseases of the Spinal Marrow in the New-born.—M. de Péters, in an exhaustive essay on this subject, says that affections of the spinal marrow in new-born infants or infants at the breast should always arouse the suspicion of hereditary syphilis. The presence of paralysis not only justifies this diagnosis when the history fails, but presents practical data of importance. Under certain circumstances, isolated paralysis of scapular muscles, isolated paresis of a limb, and isolated contracture of groups of muscles, co-existing with other paralyses, have the same diagnostic significance as palmar psoriasis, a cutaneous syphilide, condylomata, or mucous patches. When other signs of syphilis fail, such paralyses are of great importance in bringing about an elucidation of the case.

Persistence of the Ductus Arteriosus. By M. G. Gerard.

Acute Dysenteric Hepatitis.—M. Paul Remlinger concludes, from a study of four cases, that acute dysentery may evoke an acute hepatitis or an abscess of the liver. The diagnosis can be made by puncture; if an abscess is found, it must be opened. If an acute hepatitis is discovered, puncture is beneficial. It is without danger, relieves the congestion, and improves the patient's general condition and well-being.

Physiological Bases of Diabetic Sugar. By M. R. Lépine (*continued article*).

Province médicale, August 25, 1900.

Local Abscesses.—M. A. Fochier, studying the formation of subcutaneous abscesses caused by the injection of liquids, concludes that this phenomenon is not unusual in the infectious diseases. Oil of turpentine is usually efficacious in producing such a localized abscess experimentally when it is injected under the skin. When subcutaneous abscesses appear in the course of infectious diseases, they must be carefully opened and carefully dressed, in order that no secondary infection may be contracted, for it may rapidly become the source of a general sepsis.

Radiographic Pictures of the Pelvis. By M. J. Fabre.

Case of Struma, with Ablation of the Goître. By M. C. Viannay.

Serum Agglutination in the Diagnosis of Tuberculosis.—M. S. Arloing and M. Paul Courmont say that by the employment of homogeneous glycerin-bouillon cultures of the tubercle bacillus an agglutinating action of the serum of tuberculous subjects can be obtained. In cases not far advanced, the agglutinating power is always present, although in varying degrees, but in severe cases it is often absent or is very feeble. In latent cases or in cases in which no clinical signs are present this reaction often permits an early diagnosis to be made, which is not infrequently confirmed by autopsy. The presence of the reaction is therefore a valuable diagnostic sign in early phthisis; its disappearance, after its presence, is a valuable prognostic sign. Its absence in a healthy-looking person suspected of having tuberculosis, but who presents no clinical evidence, is valuable as a factor in eliminating the suspicion of the disease.

The Treatment of Fractures without Immobilization.—M. Lucas Championnière thus enumerates the fractures which can be treated with massage and without apparatus for providing immobilization: All fractures of the upper and lower thirds of the humerus, in the upper part to the point of insertion of the deltoid, in the lower part up to four fingers' breadth from the joint; all fractures of the olecranon; all fractures of the radius, as far as the wrist which do not permit the hand to be carried too far backward; all fractures of the lower part of the fibula which do not threaten a deviation in the normal axis of the foot; all fractures of both malleoli which do not show a tendency to lateral or posterior displacement; fractures of the femur without displacement; all fractures of the scapula. In children, fixation without massage may be practised; in the aged, fractures of the neck of the femur must be fixed, but all other fractures are massaged. The advantages of this method of treatment lie in the rapid disappearance of pain; when it persists it is proof that the massage or the method of fixation is at fault; contractures disappear, and with them the deformities they have caused; the vitality of the skin and the suppleness of the parts are preserved, obviating the necessity of secondary treatment after a cure has resulted, as is necessary after a plaster application; moreover, absorption of the effused blood is fostered.

Progrès médical, August 13, 1900.

Tuberculous Erythemas.—M. Paul Raymond agrees with Morris that lupus erythematosus is an erythema and that it cannot become a cutaneous tuberculosis. It is an erythema of tuberculous character. There are many transition forms, however, which must be carefully distinguished.

Monatsschrift für Geburtshilfe und Gynäkologie, August, 1900.

The Origin of Frontal Presentations.—Dr. R. Glitsch, in reporting a case of frontal presentation, suggests that it may arise from a peculiar retraction of the head from the forces acting above the pelvic brim, and thinks that this retraction, which was very marked in his case, demands further study and investigation, as its nature is not well understood.

The Relations between the Uterus and Gastric Ailments.—Dr. Odön Tuszkai says that affections of the uterus and stomach may easily be mistaken for each other clinically; consequently a sharp distinction between the diseases of each organ must be made. The reason why these affections may be confounded is that both organs are supplied by the solar ganglion of the sympathetic system, which gives off branches to each. Thus, a dislocated stomach may evoke a secondary deviation of the uterus, while a primary uterine displacement may call forth a secondary gastric neurosis. The vascular system plays an inferior rôle in the pathological relation of these organs to each other.

Lack of Uniformity and Clearness in the Names Given to Fœtal Positions. By Dr. Arthur Mueller (*continued article*).

Extra-uterine Pregnancy, Tubal Tuberculosis, Embryonic Deformity.—Dr. Gustav Alexander and Dr. Ludwig Moszkowicz report a case of extra-uterine pregnancy existing in the infundibulo-ovarian ligament, in which there existed at the same time tuberculosis of the Fallopian tube and of the peritonæum. The left side of the face of the fœtus had become attached to the amnion, forming rough, irregular patches. The aural muscles showed marked deformity and irregular development.

Indications for Operating on the Ruptured Gravid Tube.—Dr. S. Flatau emphatically advises an operation as soon as possible. He urges leaving the transuded blood, to avoid irritation of the peritonæum, to save time, and because such of the blood as is fluid will be rapidly absorbed. He gives such patients twenty-four hours in the elevated hip position, because the blood in the pelvis is not so rapidly absorbed as by the peritoneal surfaces higher up, and because the heart and respiratory centres are better nourished in this way. He also gives infusions, subcutaneous and rectal, to replenish the lost blood.

Large Vesicovaginal Fistula Cured by Skin Transplantation. By Dr. F. Weber.

Wiener klinische Wochenschrift, August 23, 1900.

A Case of Malignant Endocarditis, with Many Metastases.—Dr. S. Gavala reports such a case in which metastases were found at the autopsy as follows: Bilateral purulent amygdalitis and acute pharyngitis, also lesions in the brain, in the lungs with pleurisy on the left side, in the spleen, in the liver, in the kidneys, in the small intestine with a diffuse enteritis, and in the skin on the dorsum of the foot. The endocarditis followed an acute articular rheumatism.

On the Treatment of Epilepsy.—Dr. Max Biro gives a review of the methods of treatment in vogue. No routine will answer. Each case must be subjected to that kind of treatment to which it will best respond. The opium, the bromide, the atropine, and the combined antipyrine and bromide methods are all suitable. The author says no indications exist for any particular method, and all the elements of the case must be considered—the patient's general condition, the duration of the disease, its course, the nature of the attacks and the age of the patient.

Wiener medizinische Blätter, August 23, 1900.

The Parasitic Origin of Eczema.—Dr. Jadassohn concludes that in some ordinary forms of eczema efflorescences appear which contain no micro-organisms, or some the pathogenic nature of which is not demonstrable. In such cases the ætiology depends probably upon mechanical or chemical irritation. In other cases ordinary streptococci or staphylococci are seen which can be observed at any time in any portion of the healthy skin. These bacteria, invading the skin where there is an eczema, may arouse additional inflammation, the severity of which depends upon the patient's idiosyncrasy and the virulence of the germs.

Deutsche Medizinal-Zeitung, August 23, 1900.

The Early Diagnosis of Pulmonary Phthisis.—Dr. Lehmann says the four methods of examination which are helpful are: 1. The thorough clinical examination, with a view of all the symptoms in their positive as well as in their differential relation. 2. The bacteriological examination. 3. The injection of tuberculin. 4. Animal experimentation. He mentions the agglutination test, which is not so decisive in severe cases as in light cases and is absent in five per cent. of all cases. The reaction is, however, not seen in the blood of healthy persons.

Centralblatt für innere Medicin, August 25, 1900.

Percussion of Acute Pericardial Effusions.—Dr. Schüle, after experiments on the cadaver, says that the inflamed pericardium is more distensible than normally. The fact that the fluid is usually first detected at the base of the heart does not rest upon the fact that the heavy weight of the heart pushes the fluid upward with the patient in the recumbent posture.

Centralblatt für Gynäkologie, August 25, 1900.

The Treatment of Uterine Hæmorrhages with Formalin.—Dr. Gerstenberg reports favorable results in ten cases of uterine hæmorrhage—menorrhagia, metrorrhagia after abortion, due to inflammation of the appendages, etc., from the use of strong formalin applied on cotton by means of an applicator. He has observed no damage from the use of this strong solution, and all his cases show functional improvement.

Centralblatt für Chirurgie, August 25, 1900.

The Thermophors in the Wagner-Longard Ether Mask. By Dr. Longard.

Stretchers of Basketwork.—Dr. H. Saifert describes a stretcher made of reed basketwork which has the advantages of lightness and easy adaptability to the body of the person to be carried.

Wiener klinische Rundschau, August 19, 1900.

Phosphorus Necrosis.—Dr. Josef Lévai reports eleven cases of necrosis due to the use of phosphorus in match manufacturing, and reserves his comments for a subsequent issue.

Serum Therapy and Theory.—Dr. Weisbecker discusses theoretically the value of serum therapy and its influences, and immunity to disease evoked by animal sera.

The Therapeutic Value of Lumbar Puncture in Meningitis. (*Conclusion.*)—Dr. Maximilian Hirsch, in his epicritical remarks, quotes from literature to show that even in tuberculous meningitis lumbar puncture offers some prognostic improvement. Bloody cerebrospinal fluid is evidence of a hæmorrhage, coagulation of the fluid withdrawn indicates inflammation. There is comparatively little danger in the operation, especially if the cases are well selected and the procedure is carefully carried out.

Riforma medica, August 6, 7, 8, and 9, 1900.

The Functions of the Cerebellum. By Dr. R. Gatta.—The writer draws the following conclusions from his clinical and experimental study of the functions of the cerebellum: 1. The clinical syndrome of cerebellar disease is rendered multiform by the phenomena of compression and irritation of the contiguous and distant parts of the brain (the pons, medulla, cranial nerves, and cerebrum). 2. The clinical or experimental phenomena of cerebellar disease are marked in proportion to the extent of the lesion. 3. Complete destruction of the cerebellum in animals, as well as similar lesions in clinical cases, produces ataxia, asthenia, and atony. These effects remain for a long time in the experimental cases, although the functions return to a certain extent in some instances. 4. The pathological processes resulting from experimental rapid intoxication may give rise to disease lasting months and years. 5. The writer's clinical observations correspond to the results obtained experimentally so far as the functions of the cerebellum are concerned.

Pulmonary Emphysema Due to Nasal Occlusion. Its Pathogenesis. By Dr. Luigi Bullara.—Various theories have been advanced concerning the relation of pulmonary diseases to nasal obstruction. Thus Voltolini believes that the dependence of asthma upon nasal troubles is due to chemical changes in the respiration, or that it is reflex. Fraenkel and Abrams maintain that the pulmonary symptoms are reflex phenomena, and Sandman and Cervello believe that they are the results of purely mechanical causes. The author determined to test the different theories experimentally. He knew that occlusion of the nares in dogs produced emphysema, and studied the modifications in the respiration of these animals when they were compelled to breathe through the mouth, in the hope of finding the pathogenesis of emphysema due to nasal occlusion. He found as the result of this series of experiments that complete occlusion of the nares always produced emphysema of the lungs in a few days, even in perfectly healthy dogs, and that complete occlusion of the nares produced in dogs marked changes in the respiratory rhythm. The frequency is diminished and the depth of the respirations is increased. The respiratory period is prolonged. In order to eliminate the possibility of reflex influence of the foreign body in the nose, the nares were closed by sutures in one dog. In another dog the writer anæsthetized the mucosa of the nose with cocaine until the introduction of a feather in the nostrils could no longer be felt, and then plugged the nares with iodoform gauze. After ten minutes the changes described above began to appear in the respiratory rhythm. He also found by experiments that a smaller quantity of air entered the lungs when the animals breathed through the mouth than when the nose was used in respiration. The dogs in which the nares were occluded artificially, therefore, in order to compensate for the diminished quantity of air inspired, took deeper breaths. The pulmonary emphysema therefore depends upon the increased volume of respired air. The writer concludes that pulmonary emphysema due to occlusion of the nasal passages is simply the effect of mechanical causes.

Vratch, August 5, 1900 (August 17, N. S.).

The Relief of Eyestrain by Means of Light. By Dr. R. A. Katz.—The writer found that after his eyes had become tired from reading he could look upon a bright flame without discomfort, and that the pain in the eyes disappeared after exposure to the strong light for a few seconds. He concluded that strong light, which is unbearable by the eye under normal conditions, acts as a sedative to the tired eye. He explains this by assuming that the bright light, stimulating the circulation of the retina, reflexly increases the blood supply of the locomotor apparatus of the eye which had become tired and strained by excessive work, and thus relieves the discomfort and strain of the tired muscles. He found, however, that while the pain was relieved, the retina was blinded for a time by the exposure to the bright flame. When he looked upon a brightly illuminated wall or upon the bright flame through a piece of smoked glass, he found not only that the strain of the muscles was relieved, but that he could read without discomfort immediately afterward. If he looked upon the brightly lighted wall through a piece of smoked glass there was no relief of the tired muscles. He concludes that, depending upon the intensity of the light, the excitation of the retina of a tired eye may have no effect upon the muscles, or may result in a relief of pain, or a relief of pain with temporary dimness of vision from the excess of light, or, if the exposure is very prolonged and the light very bright, there may be simply a temporary blindness without any relief of the eyestrain. As the degree of fatigue of the eye-muscles varies, and as the effect of a given degree of brightness of a flame upon these muscles varies with the degree of exhaustion, it will be seen how different may be the effects of transition from ordinary light to exposure to a bright flame. Intermittent light, stimulating the retina more effectively than constant light, will produce the same effects, except that a lower degree of intensity is sufficient to produce the same effect with intermittent light. Another method of relieving the eye from the strain incident to prolonged work is to glance from time to time at a series of strips of variously colored paper, or even at a piece of white paper upon which are pasted black strips at short intervals. These papers must, however, be well illuminated. In conclusion, the author says that it is better to prevent the occurrence of fatigue of the eyes than to goad them on to work by such artificial means as have been indicated. The use of these methods may be likened to that of the artificial stimulants—alcohol and tobacco.

The Therapeutic Use of Gastric Juice. By Dr. A. A. Finkelstein.—Pavloff suggested the use of the gastric juice of dogs in the treatment of digestive disturbances. The reasons for recommending the natural product in preference to the commercial pepsins are that the methods of preparing pepsin are imperfect, that the commercial product is often impure, that the natural juice is more efficient than the artificially prepared solutions of pepsin, and that the amount of hydrochloric acid in the juice may be regulated by feeding the dog upon certain forms of food. The author has tested the action of the gastric juice of dogs in five patients. The diet was strictly regulated, and regular examinations of the gastric contents were made in all these individuals. His conclusions were as follows: 1. When the test meal consisted of bread, the gastric juice was found to be rich in ferments; when the meal consisted of meat, there was an abundance of acid in the stomach, and when a milk diet was ordered there was a small quantity of ferment with a medium quantity of acid. Hence the gastric juice of animals fed on bread must be given in cases of deficient digestive power of the stomach; in cases of diminished acidity, however, the juice of animals that have been fed on meat or milk must be administered. 2. With a meat diet more gastric juice is secreted than with a bread diet. Hence more gastric juice must be given in patients who are on a meat diet and whose acidity is deficient. 3. The amount of gastric juice given is to be in proportion to the amount of food taken. 4. At the beginning of digestion the secretion of gastric juice is more abundant, and the quantity becomes less toward the end of the digestive process. 5. The secretion of gastric juice is also influenced by the appetite. The writer obtained the gastric juice of dogs in which gastrotomy had been performed. This juice was examined bacteriologically with negative results. It was administered to twenty-two patients, of whom eight had catarrh of the stomach, two cancer of the stomach, nine typhoid fever, one diabetes mellitus, and two gall-stones and gastritis. He found the gastric juice especially useful in cancer of the stomach. The appetite and the digestive power increased, the vomiting disappeared, and the patient gained in weight, while the pain became distinctly less severe or even disappeared. In gastric catarrh gastric juice is a specific remedy. The chemism of digestion was regulated and improved, and the abnormal manifestations disappeared. The writer has also found gastric juice of great advantage in anæmia. In typhoid fever the tympanites became less severe, the movements of the bowels grew more regular and the disease was as a rule somewhat shortened by the administration of gastric juice, instead of the routine remedy, hydrochloric acid. The writer does not record his results in diabetes, but reserves the study of the effects of gastric juice in this disease for a future communication.

The Operative Treatment of Ascites in Cirrhosis of the Liver. Method of Suturing the Omentum to the Anterior Abdominal Wall (Omentofixation) and the Formation of Artificial Adhesions in the Abdominal Cavity. By Dr. M. M. Kouznetsoff. (*To be continued.*)

Medical Report of the Municipal Lying-in Institutions of St. Petersburg for the Year 1899. By Mme. E. L. Pouschkine. (*Continued.*)

Miscellaneous.

Ko-sam, a New Specific for Dysentery.—The *Medical Bulletin* for August publishes a translation on this subject from a paper which appeared in the *Tribune Médicale* for June. From this we learn that ko-sam, though not a new substance, and long known in Europe, has not until recently been employed in medicine. The Chinese and Annamite physicians, however, have long used it in hæmorrhages. Dr. Mougeot, a French physician practising at Saigon, administered it for the first time to an Annamite woman in the central prison there who was attacked by metrorrhagia complicated by severe dysentery. His employment of ko-sam was directed against the metrorrhagia only, but at the end of six hours, not only had the metrorrhagia almost ceased, but the dysentery also was much better, and after four doses the patient was completely cured. From that time on, Dr. Mougeot had employed ko-sam frequently in dysentery with scarcely any failures and often with startling results. Out of 879 cases so treated which could be followed up, 799 were completely cured in from three to six days. In 57 cases fifteen days' treatment was required. In 53 cases for various reasons no benefit was experienced.

Native physicians give from 5 to 45 grains, decorticated or not, parched and powdered, or mixed with rice, but not always without rather serious congestive accidents.

Dr. Mougeot, having ascertained that 20 or 25 grains sometimes occasioned cerebral congestion, came to the conclusion that a dose of 10 grains the first day and 12 grains on the following days was sufficient for adults. The quantity was diminished by half for children. He crushed the grains, and had them made into pellets with bread-crumbs. He witnessed occasional, but not severe, vomiting. As a rule, a fresh dose could be given immediately after the vomiting, provided that warm applications were at the same time made to the epigastrium. For some time he gave the remedy early in the morning, about 4 or 5 o'clock, together with a swallow of milk, and required the patient to rest in bed for an hour. Blood generally disappeared from the stools on the first day, and the pain was allayed; the number of evacuations then diminished, and cure resulted on the third or fourth day. The treatment does not necessitate any regulation of the diet, but, on account of its energetic hæmostatic action, the remedy should be suspended during the catamenial period.

The drug has been studied by Professor Heckel and Professor Schlagdenhauffen. Botanically, it is allied to the genus Brucea, natural order Simarubeæ. Its activity is supposed to be partly due to the quassine it contains.

"Stump Pregnancy."—Dr. John C. Morfit (*Journal of the Alumni Association of the College of Physicians and Surgeons, Baltimore,* July) records a very interesting case. In August, 1897, the patient, a young working girl in a department store, had produced on herself an instrumental abortion, and was suffering from serious symptoms which called for laparotomy. This was done, and the right ovary and tube were removed. Recovery was uneventful.

December 17, 1899, two years and four months later, Dr. Morfit was called to see this same patient. She had a weak, thready pulse that he could not count; she seemed worried; the lips were pale, the hands and feet cold, the respiration quick and shallow with nostrils dilating at each respiratory excursion; she stated in slowly spoken words, that she had been two weeks overdue in her period and believed she was pregnant. She complained of the most intense pain in the right side from the shoulder to the hip, with especial reference to the right iliac region. She was so weak, nervous, and excited, that Dr. Morfit did not attempt to make a thorough examination. There was no mistaking hæmorrhage, however, with such symptoms. He gave three-eighths of a grain of morphine and one-thirtieth of a grain of strychnine hypodermically, and in half an hour injected a quart of salt solution into the rectum. This was retained and the pulse soon became steady at 120; the temperature was below normal. As she was quiet and calm, Dr. Morfit left her and returned early in the morning. At this time he was able with less difficulty, but not without causing the patient considerable pain, to examine the abdomen, which was much distended and tympanitic except low down posteriorly at the sides, where there was bulging and dullness. The pulse was now 110 and much stronger than on the previous evening, but the patient was too weak to stand anything and was kept at absolute rest. He repeated the salt solution per rectum and encouraged the patient to drink all the liquid possible. The symptoms continuing, however, and profound collapse setting in, Dr. Morfit succeeded in getting her into hospital thirty-six hours after his first visit, and decided to risk an operation, although he had but little hope of bringing the patient off the table alive. He made the incision in approximately the same line as the first operation of two years previously, and encountered several embedded silkwormgut sutures. There was a band of adhesion running backward to the fundus of the cæcum, just to where the vermiform appendix is given off. This two-inch adhesion resembled a thread of catgut. The belly was full of black, but sweet-smelling clots, and there was quite a quantity of fluid red blood. Knowing that he had removed the right appendages, he sought the left adnexa, felt his way through the clots, and applied a forceps to the proximate portion of the left broad ligament. With this pressure he felt at ease to proceed to the toilet of the belly, and must have removed more than a gallon of clots and fluid blood. What was his surprise on getting a clear field to see that the oozing was from the stump of the old operation. There it was, about three-fourths of an inch long, and ruptured, presenting a fuzzy placenta to view. Another forceps was applied to the right side, both tubes ligated close to the womb, and the distal portions removed. The abdomen was then filled with normal saline solution and sewed up with several layers of buried catgut sutures. The patient was returned to bed, and everything done to sustain strength and lessen the shock. Artificial respiration was kept up for over two hours, salt solution was injected per rectum, under the breasts, and into the cellular tissue of the thighs. Twenty hypodermic syringeloads of brandy, besides strychnine and nitroglycerin, were administered. For many hours the patient seemed to be only artificially alive, but persistent efforts were finally rewarded by a gradual return of consciousness, and more emphatic evidences of real life. In four weeks the patient walked to her carriage and was driven home. To-day, he says, she is a picture of perfect health and suffers nothing. In the ovary removed there was a large ruptured Graafian follicle.

This, Dr. Morfit believes, is a variety of extrauterine pregnancy which has never before been met with, and for that reason he has named it *stump pregnancy,* it having occurred in the remains of a tube, the proximal end of which had not been entirely removed. The absence of the ovary and most of the tube on the right side, the occlusion by ligature of the stump, the presence of a normal ovary and tube on the left side, and a large corpus luteum being present in the only ovary, lead to but one possible conclusion. The fertilized ovum came from the left side, passed through the left tube and the uterine cavity up into the remains of the tube on the right side, where it began to develop and finally ruptured the tube into the abdomen.

This, says Dr. Morfit, upsets the heretofore generally accepted view, that ectopic pregnancy is due to some mechanical or inflammatory hindrance to the normal downward passage of the fertilized ovum. He believes that this case proves quite clearly that the ovum may travel either up or down; and that wherever an ovum may be fertilized, in the ovary, tube, or uterus, it seems certain that it can come from either side and go everywhere and anywhere before anchoring itself preparatory to development.

Local Paralysis Due to an Overdose of Camphor.—Dr. T. B. Greenley (*American Practitioner and News,* July 15th) records the case of a lady seventy-eight years of age who took an unknown quantity of spirits of camphor. About an hour after taking it she became comatose, and finally appeared to be dead. Consciousness returned, however, after a considerable interval, and it was found on examination that her right hand and the right side of her face were paralyzed. The patient retained the use of all the other muscles. She remained in bed for two weeks, sitting up subsequently for a few hours at a time. The appetite remained good. In four weeks she was able to walk about the room with assistance. At the time of reporting, some five months later, she could pick up a pin from the floor with the afflicted hand, and there was no perceptible trace of the facial paralysis. The treatment consisted of normal liquid of nux vomica and gentle massage to the affected parts. The author discusses the nature of the paralysis, and considers that the nervous system for the time being succumbed to the powerful stimulating effects of the camphor producing coma, and that during this state the function of the nerves of the face and hand of the right side was destroyed. Had the paralysis been central, other muscles would have been affected. Had there been thrombus or embolism of the cerebral vessels the attack of coma would have been more protracted and the paralysis more extensive.

New Method of Treatment by the Intravenous Injection of Metallic Iodine.—Dr. L. M. Spolvereni (*Il Policlinico,* May 1st; *Treatment,* August), being impressed with the necessity, which exists in many cases, of administering some preparation of iodine in a more rapid manner than by the mouth, has commenced some experimental researches on animals, of which the present article forms a summary. The obvious objection to the injection of metallic iodine into the veins would, of course, be the danger of thrombosis and sudden death. In all cases the iodine was combined with iodide of potassium dissolved in sterilized water. The chief results were as follows: The injection of these matters into the veins was perfectly painless, no appreciable disturbance ensuing. No coagulation of the blood in the vessels ensued. Unless some unforeseen accident happened there was no tendency to thrombosis, either instantaneous or consecutive. When protiodide of mercury was added to the solution injected, a certain tendency to thrombus formation was noticed at the point of injection, but it led to no further development. All animals submitted to these experiments gained weight. Blood withdrawn after the operation showed no morbid tendency to coagulate. These results are very important, says the *Polyclinic,* and it may be that some of the dangers attending intravenous injection of fluids really depend upon defects of technique.

The Use of Intra-uterine Injections in Puerperal Fever.—Dr. George Rowland (*Obstetrics,* August) asks: "Finally, what shall we do when confronted with puerperal fever?" We find the patient, he says, in a grave condition, intensely intoxicated with the poison-producing agent, and delirious. There is no specific for this fever. The septic infection is now beyond the reach of the physician. We must prevent any more poison entering the system. Neutralize the poison at the point of production, and assist the patient to eliminate the poison from her system through all emunctories.

The external genitals should be cleansed with soft warm water and green soap, followed by thorough application of bichloride solution, 1 to 1,000. The vaginal tract should be cleansed with hot water, followed by bichloride solution, 1 to 3,000, and continued until it escapes clear. The uterus should be completely evacuated of any foreign substance. Hot water should be thoroughly used, followed by hot bichloride solutions, 1 to 5,000, injected into the uterus continuously until the solution escapes clear. When this is done the body of the patient should be placed in such a position as to secure rapid drainage. This should be continued every six hours for the first day and night, after which the iodoform gauze, 10 per cent., should be packed into the uterine cavity, when thorough disinfection ensues. It promotes contraction of the uterus, removes fluids, and is a source of great comfort to the patient. This procedure should be repeated daily, while a large pad of bichloride gauze should be constantly and repeatedly applied to the external genitals.

Probably objections will be offered to the intra-uterine injection of any fluid. These objections are based upon the probability of fluids being forced through the Falloppian tubes into the peritoneal cavity.

When we remember that the Falloppian tube of an adult woman is four inches long, and that the orifice at the uterine extremity is extremely minute, scarcely admitting a fine bristle, the bare possibility, when the patient is placed in a semi-erect position at the time of injection, is exceedingly remote of any fluid passing into the peritoneal cavity. In all the author's experience of years past he has had no evil results.

Intestinal Antisepsis.—Dr. J. M. Anders (*Therapeutic Gazette; Canada Lancet,* August), in a paper on Intestinal Antisepsis in Typhoid Fever, says the intestinal antiseptics have a limited sphere of usefulness, exerting as they do a favorable effect upon some of the intestinal features, particularly tympanites; they also exercise a mitigating influence upon the diarrhœa when present. The latter symptom, however, does not furnish an indication for their use unless the number of stools exceeds three or four daily. The bowel antiseptic that he has employed for many years is salol. While this drug has a marked symptomatic influence, it is questionable whether complete antisepsis of the intestinal canal is accomplished by its use, and the same may be said of the remainder of the aromatic group—naphthol, benzo-naphthol, and naphthalin. The dose of salol in cases of average severity is three grains every three hours. When the indications are urgent, as much as two grains every hour may be employed for a short period, or until the urine is perceptibly tinged. It is best to use the drug in powdered form, as he has seen compressed tablets pass through the gut unchanged. In cases in which marked distention of the bowel is present as a symptom of the typhoid state, turpentine is to be preferred; it is an efficient antiseptic and also exercises a stimulating effect upon the circulation and the secretions. White turpentine is the preferable preparation, and may be administered in doses of from three to five grains every three or four hours.

"Conjunctival Asthma."—Professor Rosenbach, of Berlin (*Wochenschrift für Therapie und Hygiene des Auges,* N. 36, 1900; *Annals of Ophthalmology,* July), describes what he calls "conjunctival asthma." He has seen five cases. The affection is characterized by intense hyperæmia of the conjunctiva, especially of the upper lids. In all of the cases the subjects were plethoric and between forty and fifty years of age. The hyperæmia comes on periodically, or it may become more intense periodically, and is often associated with hyperæmic conditions of the nasal mucous membrane. The chief symptoms are a pronounced feeling of weariness and a heaviness about the head, want of rest with inability to sleep, periods of depression associated with anxious thoughts, and there is often a sense of constriction about the neck and chest with frequent sighing. In short there are found all the symptoms of a highly nervous state. The affection defies the usual local treatment. The instillation of a weak solution of cocaine does more good than anything else, but the relief is only temporary. Independently of the history, that is to say of the periodicity of the attacks and of the accompanying nervous phenomena, the diagnosis can only be made from the ineffectiveness of the usual local remedies for conjunctivitis and from the rather remarkable effect of cocaine. The author is unable to say whether the condition is in any way indicative of cerebral hyperæmia, but he is decidedly of the opinion that disturbances in the intestinal tract, hæmorrhoids, etc., may be factors.

Hemeralopia Cured by Injection of Physiological Horse Serum.—Santos Fernandez (*Archivos Medicos,* of Cadiz, April; *Annals of Ophthalmology,* July) adds three new cases of hysterical hemeralopia coming on suddenly in the night with total loss of vision, all of which were completely cured by the injection of horse serum. This makes five cases in which Fernandez has tried the method, and he thinks it of great value.

A Gnat in the Nasal Duct.—Dr. Wolffberg, of Breslau (*Wochenschrift für Therapie und Hygiene des Auges.,* No. 39, 1900; *Annals of Ophthalmology,* July), records the case of a woman forty years old, who had suffered with fistula of the tear sac for many years and presented the typical picture of that disease. She had been under treatment for a long time, but everything which had been tried proved of no avail. The tear sac was then extirpated and for several days subsequently there was quite a profuse discharge of pus from the canal. On one occasion strong pressure brought out a good deal of pus and along with it a blackish looking object which proved to be an insect, about 8 millimetres long, with white and black stripes around its body, and with short wings. With the removal of this insect the suppuration stopped at once and six days later the patient was practically well. It is not supposed for a moment that the gnat caused the original trouble, but it was undoubtedly responsible for the post-operative suppuration, that is to say, for the profuse discharge of pus following the extirpation of the sac. The author inclines to the belief that the gnat got into the nares a few days before the operation and found its way from thence into the nasal duct.

Proceedings of Societies.

AMERICAN LARYNGOLOGICAL, RHINOLOGICAL, AND OTOLOGICAL SOCIETY.

Sixth Annual Meeting, Held in Philadelphia on May 31 and June 1 and 2, 1900.

The President, Dr. D. Braden Kyle, of Philadelphia, in the Chair.

(Continued from page 391.)

The Ætiology of Retropharyngeal Abscess.—Dr. M. R. Ward, of Pittsburgh, reported two cases. The first was that of a child two years and a half old, in whom the trouble had begun on March 1st, after exposure to cold. The head was held rigidly inclined to the right, and the voice was muffled. Pain was referred to the right ear. Inspection of the throat showed acute pharyngitis, but no posterior swelling was noted. Examination of the ear showed acute otitis media. The temperature was 103° F. Five days later there was noted a retropharyngeal abscess, and the author opened it immediately. During the following night there was a profuse discharge of pus from the right ear. The child made a good recovery.

The second case was that of a child of six months, having a good family history. The illness began on March 6th with symptoms of influenza, from which disease one of the children in the family was suffering at the time. Inspection showed marked congestion of the pharynx. The head was held rigidly and slightly turned to the right. Although the author was on the lookout for retropharyngeal abscess because the other case was at the time under observation, he was unable to make the diagnosis for five or six days. Great difficulty in swallowing was noticed, and the child refused to take the breast. The tongue seemed to be kept in almost constant motion in such a manner that the fluid gravitated forward. On the sixth day a swelling was noticed on the right side externally, under the sternomastoid muscle, and digital exploration showed a retropharyngeal abscess.

Owing to the peculiar movement of the tongue, it was found impossible to open the abscess with the bistoury, so he accomplished it by placing the child's head over his knee, and opening the abscess with the finger nail.

One foreign observer, in the course of a residence of twenty-six years in a children's hospital, had seen 203 cases, which he classified as follows: Idiopathic, 179; from scarlet fever, 9; from measles, 1; from caries of the vertebræ, 7; from abscess of the neck, 7; and from traumatism, 1. It was peculiarly a disease of infancy, and the deep posterior cervical glands were usually at fault. It was not right, however, to consider such a large proportion as primary or idiopathic. He regretted that no bacteriological study had been made of the cases reported in his paper.

Dr. RICHARDS said that, although he had practised medicine fourteen years, he had met with his first case of retropharyngeal abscess only two months before. The child had been brought to his office by a physician with the statement that the case was urgent. Examination showed a considerable swelling at the base of the tongue and to the right of the median line. On digital examination, he felt a slight but tense swelling. He inverted the child and opened the abscess with his finger nail, and a considerable quantity of pus was evacuated. For a few minutes it was difficult to get the child to breathe, but it had made a rapid recovery.

Dr. C. W. RICHARDSON, of Washington, said that he had seen three cases of retropharyngeal abscess in children, two of which had been relieved by operative intervention. About six or eight years ago he had seen, in consultation, a child who had had a swelling in the neck for a week or ten days. It was supposed to be an inflamed tonsil or an enlarged lymphatic gland. The breathing was very stridulous and the condition of the patient extremely bad. Examination convinced him of the presence of pus, and, on passing the finger into the pharynx, he detected an enormous swelling extending toward the middle line as far down as the epiglottis. The child stopped breathing at the moment of the examination, and the father in alarm snatched the little one and ran into another room. The child was heard to cry and gasp, and, although the father was ordered to bring the child back, he did not do so for a minute or two, and then it was found that the child was dead. This emphasized the advisability in these long-standing cases of explaining to the family the possibility of sudden death supervening at the examination or during the operative intervention. There had been no special difficulty about either the diagnosis or the treatment of the two other cases. It was difficult to inspect the pharynx of an infant under a year old, and hence these cases were often not diagnosticated at first. In most cases the origin of the trouble was in suppuration of the deep cervical lymphatic glands.

Dr. N. L. WILSON, of Elizabeth, said that he had seen two cases recently. One of them had presented an enormous swelling, the child having been suffering for three weeks before coming to him. The abscess was quickly opened with a bistoury, and recovery ensued. In the other case the abscess had originated in tuberculous caries of the spine.

Dr. N. H. PIERCE said that he had seen two cases. One of them was that of a child less than a year old, seen at the Post-graduate Hospital. The child was extremely emaciated from inability to nurse, and was on the point of suffocation. For a moment he had been puzzled over the case, for there was no circumscribed swelling or redness, yet inspection had given him the impression of a shortening of the buccal cavity. The whole posterior pharyngeal wall was pushed forward. On digital examination, he detected slight fluctuation, and he then made the diagnosis. The ignorant parents would not then consent to an operation, but some days later they allowed him to operate. The opening was made externally. At that time the internal swelling was very large, and he thought it was conservative to estimate the quantity of pus evacuated at over four ounces. The tube was displaced in the dressing, causing another accumulation of pus, whereupon all the distressing symptoms again appeared. The child recovered rapidly after re-establishing drainage. In this case there was no vertebral caries.

Dr. F. C. COBB said that he had had two cases of retropharyngeal abscess. In one of these nothing could be seen in the pharynx, because of the large quantity of mucus accumulated there. On palpation, one could feel a solid mass on the pharyngeal wall, but neither he nor other physicians present could detect any fluctuation for four or five days. The symptoms had grown slowly worse during this time, and, of course, immediate relief was afforded by incision. It was well to examine with the finger quite low down.

Dr. E. E. HOLT, of Portland, Me., said that when there was any swelling in the neck, whether the ear had been manifestly involved or not, he made it a point to examine the external ear carefully. If he found the posterior superior part of the canal red and sensitive to the touch, he found almost invariably that the mastoid was involved. He cited a case in which the tonsils and pharynx were extensively inflamed, and the swelling in the neck was thought to be due to the inflamation in the throat, but, upon examining the ear and finding that the canal was inflamed and sensitive in the posterior and superior part, he gave it as his opinion that the mastoid was involved, although there was no external manifestation of inflammation of the mastoid. The patient was in a critical condition, and he was asked to operate, and did so, finding the mastoid broken down and a perforation into the digastric fossa and into the lateral sinus. The patient made an uninterrupted recovery.

Dr. THOMAS H. FARRELL, of Utica, cited a case in which a large swelling had been found on the left side behind the posterior pillar of the fauces. The two pillars were crowded together, so that at first sight the swelling looked like an enlarged tonsil. An incision was made, but it was necessary subsequently to enlarge the opening to secure proper drainage.

Dr. T. R. CHAMBERS, of Jersey City, said he had seen only the day before a little child with what he suspected to be a post-pharyngeal abscess. The only symptom was a peculiar crowing breathing associated with cyanosis on awaking. The patient was an infant of about nine months. Palpation was unsatisfactory, and caused marked cyanosis and difficult breathing. No swelling could be appreciated.

Dr. WARD said he had endeavored to show that the disease was more frequent than was generally supposed, and one met with oftener by the general practitioner than by the specialist. It seemed to him rather strange that an infection of the deep lymphatic glands of this kind should so seldom lead to retropharyngeal abscess. He saw no good reason for resorting to the more formidable external operation.

Some of the More Common Forms of Defective Speech.—Dr. G. HUDSON MAKUEN, of Philadelphia, read a paper in which he defined voice to be "a column of breath set in vibration by its own impact with the vocal bands and reenforced by its diffusion through the various resonant chambers into the surrounding atmosphere." It was his belief that persons who stammered did so for the most part because they had not an adequate column of breath properly controlled at the time they desired to speak, and the trouble in the majority of these cases lay in the respiratory mechanism. The diaphragm was well known to be an important respiratory muscle, and the text-books put it down as an inspiratory muscle. He personally believed that for the purposes of speaking and singing the diaphragm was a purely expiratory muscle. He had endeavored to show that the diaphragm should always be contracted or in a state of tension when the column of air was being used for the formation of voice. He therefore taught his pupils to contract the diaphragm during the emission of vocalized breath.

The author then presented a young man who had been coming to his clinic for about two years. When first seen, he had been unable to articulate so as to be understood by any one. When seventeen months old, he had suffered from marasmus and had been unable to walk for five years. When he came to the clinic he was nineteen years old, and he could not speak a single intelligible word. The muscles of his mouth and face were at that time in a state of almost constant tremor. He had been taught to use the organs of articulation in the formation of the various sounds, and to control the breath by the proper use of the respiratory muscles, with special emphasis placed upon the use of the diaphragm, as already described, and he was now able to speak quite distinctly, though slowly and monotonously, and with some effort. He had been taught to use the syllabic method of articulation in order to train his muscles properly. In time he would be able to talk smoothly and easily.

The author had treated children as young as six years old. He exhibited three girls who were being trained. He stated that stammering was a disorder of both the muscles and the nerves, but by muscle-training the nervous system would also be trained.

Dentigerous Cysts of the Superior Maxilla.—Dr. Frederick Cobb, of Boston, read this paper. The location of the hard bony swelling, he said, was usually at the side of the nose, and examination of the nostril sometimes showed a bulging of the outer wall of the vestibule outward and upward. Sometimes the sinus could be seen running upward into the swelling. The usual symptoms were slow swelling of the face, without suffering, except perhaps a slight pain about the roots of the teeth. On the sound side the transmission of light below the organ was better than on the other side. On inserting a cannula into the tumor, a brownish fluid escaped, and, if by means of a syringe fluid was injected, it escaped around the trocar. After evacuation of the cyst and its consequent collapse, a sharp bony prominence, representing the roof of the cyst, would become apparent. In his own cases the swelling had contained no teeth. It was important to determine the condition of the teeth entering the cyst. The bony opening in the cyst should be packed until granulation had become well established. He thought these cysts started in an inflammatory process originating around the diseased teeth, characterized by excessive secretion. Some of the cases had come to him with a diagnosis of antrum disease. The salient points in the treatment were exacuation of the cyst and careful dental treatment.

Cornu Cutaneum Auris.—Dr. John C. Lester, of Brooklyn, read this paper. The case was reported because of the extreme rarity of horny excrescences of the skin. In this case the growth had been attached to the middle and outer portions of the pinna. He had failed to find in dermatological literature any reference to tumors of this nature attached to any portion of the external ear. Such growths were rarely found except on the face and on the penis. The growth in this case was single. They were more common in advanced age, and in men rather than in women. The points of interest in the author's case were the anatomical situation, the history of severe freezing of the auricle, the age and sex of the patient, the severe hæmorrhage following removal, the ossification of the auricle, and the permanency of the recovery.

(*To be continued.*)

Letters to the Editor.

THE LIBERALITY OF THE CODE OF ETHICS.

55 West Thirty-sixth Street,
New York, *August 21, 1900.*

To the Editor of the New York Medical Journal:

Sir: In the course of the abstract of the address delivered by Dr. A. Jacobi before the Thirteenth International Medical Congress, published in the number of your *Journal* for the 18th inst., on page 307, the doctor is quoted as saying that he does not consider it wise, under ordinary circumstances, for regular physicians to consult with homœopaths. "Still," he adds, "there are cases in which it would be inhuman to refuse a consultation. Not only were such consultations held from olden times, but even in large cities exceptions to the rule have always been frequent, indeed too frequent, in my opinion. . . . Only lately one of the medical men most widely known for his wisdom in the American Medical Association and to the profession at large, Dr. S. C. Busey, of Washington, proclaimed that the rule forbidding such consultations should be so modified or explained as to permit them in cases of emergency."

If these gentlemen are correctly quoted, it seems that they are unacquainted with the fact that the American Medical Association at its thirty-sixth annual meeting, held in Tulane Hall, New Orleans, from April 28 to May 1, 1885, adopted a series of resolutions explanatory of that portion of the *Code of Ethics* which related to consultations and distinctly gave permission to its members to do the very thing which these gentlemen now think it should do, and those resolutions have since that time been made a part of the *Code of Ethics* of the American Medical Association. In Section I of these resolutions the statement is made "that Clause 1 of Article IV in the *National Code of Medical Ethics* is not to be interpreted as excluding from professional fellowship on the ground of differences of *doctrinal belief* those who in other respects are entitled to be members of the regular medical profession. Neither is there any other article or clause of the said *Code of Ethics* that interferes with the exercise of the most perfect liberty of individual opinion and practice."

Again, in Section 3, which I quote in full, it is distinctly stated that under certain conditions it is not only permissible, but the duty of physicians, to consult with homœopathists.

"*Resolved,* That there is no provision in the *National Code of Medical Ethics* in any wise inconsistent with the broadest dictates of humanity, and that the article of the code which relates to consultations cannot be correctly interpreted as interdicting, under any circumstances, the rendering of professional services whenever there is a pressing or immediate need of them. On the contrary, to meet the emergencies occasioned by disease or accident, and to give a helping hand to the distressed without unnecessary delay, is a duty enjoined on every member of the profession, both by the letter and the spirit of the entire code."

It is hard to see what other resolutions the American Medical Association could pass which would confer greater liberty in regard to the matter. And for a long time it has seemed to me that, were the position of our great national association more generally known, the differences which are supposed to exist between the members of the regular profession would be done away with. At the late meeting of the legislature, when these resolutions to which I refer were read to the senate committee to which the matter of chartering the New York State Medical Association had been referred, Dr. St. John Roosa, who was present in opposition, made the statement that if these resolutions defined the position of the American Medical Association on the question of consultations between members of the regular profession and homœopaths, there was in reality no difference in the positions taken by the New York State Medical Association and the Medical Society of the State of New York regarding this matter. This agrees with the views which the writer expressed in his inaugural address as president of the New York County Medical Association, delivered February 20, 1899, and published in the *Philadelphia Medical Journal* of February 25th of the same year.

Dr. A. M. Jacobus, in his able inaugural address before that society on November 22, 1897, says: "Regarding certain sectarian practitioners, if they will but drop the sectarian title for that of physician pure and simple, and let the old and new school questions die out, I am sure we will welcome them with open arms. This statement shows that the position occupied by the county society and therefore, it may be presumed, by the State medical society, with which it is in affiliation, is identical with our own; and it would seem to indicate that the time is drawing near when these societies will readopt the National Code."

Frederick Holme Wiggin, M. D.,
President of the New York County Medical Association and Councilor of the New York State Medical Association.

A TRIPLE MEATUS URINARIUS.

72 Lexington Avenue,
New York, *August 20, 1900.*

To the Editor of the New York Medical Journal:

Sir: Noting in the *Journal* of a recent date the mention of a contemporary describing a "three-barreled" anomaly of the penis I present the following:

C., a farmer aged forty-three, from northern Ohio, stopping in New York en route to Paris, called at my office for an examination. Four days before, while seeing the sights, he had had a "social glass," followed by intercourse with a woman in a resort. He had not had coitus for six months previous, was engaged to marry an old sweetheart in the coming autumn, and, while not greatly disturbed, wished to be enlightened as to the symptoms which he presented. I diagnosticated gonorrhœa in the active stage.

Examining the glans, I was struck by the conformation of the meatus. What seemed to be three tunneled, disconnected openings were apparent, but with a grooved director I converted the openings into a fluted or rifled single tube. The compartments extended in about half an inch, disappearing in the mucous lining of the urethra. The patient was unaware of the presence of the anomaly. Urination had cleared the upper canal; the two lower, of equal but somewhat smaller size, were filled with pus. I irrigated him with hot permanganate solution and fitted him with a suspensory bandage, and he left on his trip the next day with a promise to abstain from women and liquor.

Frederic Griffith, M. D.,
Surgeon, Bellevue Dispensary.

THE SUPRARENAL GLAND IN URETHRAL SURGERY.

104 West Fifty-eighth Street,
New York, *August 30, 1900.*

To the Editor of the New York Medical Journal:

Sir: At the present time, when suprarenal therapy is attracting such universal attention, the following brief notes may be of interest. During my term of service as house surgeon at Bellevue Hospital I experimented with the suprarenal in a variety of surgical conditions, and was impressed with its value in certain cases of stricture of the urethra. We always used a fresh solution of the desiccated glands, ten grains to the drachm. In two cases of dilatable stricture the suprarenal was used for experimental purposes. Half a drachm, injected into the urethra, enabled us to pass with ease a sound that had previously caused considerable discomfort. In two cases of retention of urine attempts at catheterism previous to the patients' admission to the hospital had resulted in extensive traumatism to the urethral mucous membrane, with subsequent swelling and hæmorrhage. The injection of suprarenal enabled us to pass filiform bougies and over them tunneled catheters, although previous attempts had been unsuccessful. These were both cases in which we should ordinarily have resorted to suprapubic aspiration. In a case calling for external urethrotomy, after the patient was under the anæsthetic, difficulty was experienced in introducing a filiform bougie. The injection of suprarenal enabled us to do this without difficulty. In a case of external urethrotomy performed without a guide, the field of operation was obscured by hæmorrhage. Suprarenal was injected with a small aspirating syringe into the tissues about the seat of operation, and checked the bleeding almost immediately. This case was complicated six hours later by a brisk secondary hæmorrhage.

E. L. Kellogg, M. D.

Book Notices.

BOOKS, ETC., RECEIVED.

Medical Diseases of Infancy and Childhood. By Dawson Williams, M. D., Lond., Fellow of the Royal College of Physicians of London, and of University College, etc. Second Edition Revised, with Additions by Frank Spooner Churchill, M. D., Instructor in Diseases of Children, Rush Medical College, in Affiliation with the University of Chicago, etc. Illustrated with 72 Engravings and 2 Colored Plates. Philadelphia and New York: Lea Brothers & Company, 1900. Pp. 4-542.

Manual of the Diseases of the Eye. For Students and General Practitioners. With 243 Original Illustrations, including 12 Colored Plates. By Charles H. May, M. D., Chief of Clinic and Instructor in Ophthalmology, Eye Department, College of Physicians and Surgeons, Medical Department, Columbia University, New York. New York: William Wood and Company, 1900. Pp. xiii-406.

Traité pratique des déviations de la colonne vertébrale. Par P. Redard, Ancien chef de clinique chirurgicale de la Faculté de médecine de Paris, etc. Avec 331 figures dans le texte. Paris: Masson et Cie, 1900. Pp. vii-466.

The Scientific Transactions of the Royal Dublin Society. Volume VII.—Series II. No. II. Radiating Phenomena in a Strong Magnetic Field. Part II.—Magnetic Perturbations of the Spectral Lines. By Thomas Preston, M. A., D. Sc., F. R. S. No. III. An Estimate of the Geological Age of the Earth. By J. Joly, M. A., D. Sc., F. R. S. No. IV. On the Electrical Conductivity and Magnetic Permeability of Various Alloys of Iron. By W. F. Barrett, F. R. S.; W. Brown, B. Sc.; R. A. Hadfield, M. Inst. C. E. (Plates II to IX.) No. V. On some Novel Thermo-electric Phenomena. By W. F. Barrett, F. R. S. (Plate IXa). No. VI. Jamaican Actiniaria. Part II.—Stichodactylinæ and Zoantheæ. By J. E. Duerden, Assoc. R. C. Sc. (Lond.) (Plates X to XV). No. VII. Survey of Fishing Grounds, West Coast of Ireland, 1890-1891. X.—Report on the Crustacea Schizopoda of Ireland. By Ernest W. L. Holt, and W. I. Beaumont, B. A., Cantab. (Plates XVI). Dublin: Published by the Royal Dublin Society, 1900.

The Scientific Proceedings of the Royal Dublin Society. Volume IX. (N. S.) October, 1899. Part I. March, 1900. Part II.

The Economic Proceedings of the Royal Dublin Society. Volume I. November, 1899. Part I.

The Twenty-sixth Annual Report of the Secretary of the State Board of Health of the State of Michigan. For the Fiscal Year ending June 30, 1898.

Charles Frederick Wiesenthal, Medicinæ Practicus, the Father of the Medical Profession of Baltimore. By Eugene F. Cordell, M. D. (Reprinted from the *Johns Hopkins Hospital Bulletin.*)

Miscellany.

The Quarantine Inspection of Immigrants.—According to the annual reports of the quarantine and health officer of the port of New York for the year 1899, over 309,000 steerage passengers arriving by the various steamship lines were inspected during the year at the quarantine station. Some 4,658 passengers from "foreign" vessels were also inspected.

Women Physicians in Russia appear to have established a very enviable position for themselves. Many of them hold offices in government employment, and they are now eligible for pensions. The municipal ambulance system, county medical service and poor law service all contain women physicians on their staff.

The Zeta Phi Organization of Medical Women.—During the past year, the women of Syracuse University College of Medicine have organized Zeta Phi, the first and only women's medical fraternity in this country. They esteem it an honor that Dr. Elizabeth Blackwell has consented to become a charter member, since she graduated from this college and was the first woman to receive the degree of M. D. in America. The purpose of the fraternity is to bring the women of the medical profession into closer touch with one another.

The Spanish-American War Nurses' Association.—At a meeting of nurses who served during the Spanish-American War, held at the New York Hospital on Thursday, September 6th, some sixty nurses being present, a constitution was adopted and those nurses only were declared eligible who had served not less than one month. This limitation makes about five hundred nurses eligible for membership. The list of officers is as follows:

President, Dr. Anita Newcomb McGee, acting assistant surgeon, United States army, detailed to the army nurse corps, now with the surgeon general's office, Washington; vice-presidents, Dr. L. A. Hughes, Boston; Miss Hibbard, Manchester, N. H.; Dr. Isabel Cowan, detailed to duty at the Presidio Reservation, California; Miss Hobson, New York; Miss McCloud, now serving in the Philippines; Miss Walton, New York; Miss Miselback, now serving in Santiago, Cuba; Miss Robbins, Miss Dreyer, now in the Philippines; Miss Read, Baltimore; recording secretary, Miss Lela Wilson, Boston; corresponding secretary and treasurer, Mrs. George Lounsbury, Charleston, S. C.

The association will meet in Washington next year.

De Mortuis Nil Nisi Bone 'em is said, on good authority, to have been the motto of the ancient "body-snatchers."

Fighting over an Infectious Diseases Hospital.—On August 27th a battle with shotguns and revolvers is reported to have taken place in Kansas City, Mo., between the guards and employees of the hospital and a number of local residents.

According to the *Kansas City Times* for August 29th, the trouble grew out of the removal of the "pest house" from its old quarters on the river front just east of the Milwaukee bridge to vacant property of the city about six blocks south and east. This property had been squatted on by several families of fisher folks, living in stranded house boats or other rude cabins. St. George's Hospital was a collection of about thirty small one-room frame houses that were at one time used for election booths about the city. When it was learned that the board of health had determined to make the change of location there was a vigorous protest on the part of the squatters. A number of them came before the board and threatened to bring injunction suits and to burn the houses if their protests were not heeded. In view of these threats the board had some of the houses moved during the past week in the night time and stationed a number of employees there to see that the property was not destroyed. By Monday night twelve of the houses had been moved.

An attempt was made to burn the huts, upon which the men on guard opened fire with revolvers and a battle ensued. It does not appear that any one was hurt.

An Air-filtering Plant.—The *Philadelphia Record* for September 1st, referring to the ventilation of large buildings, says that the ventilating plants of most of these buildings consist of a blower, which sucks (by means of a fan) the air through a duct, leading perhaps to the roof, which is then distributed throughout the building. The strong current of air produced in this manner, however, causes all the particles of dust floating in the air to be drawn into the current of air passing down the duct. In this way the air becomes excessively dust-laden, and this is injurious alike to health and to books, papers, drawings, etc. One large building recently erected provides for an air-filtering plant, which has worked very satisfactorily. The air is drawn into the ventilating duct in the ordinary manner, at the rate of about 26,000 cubic feet per minute, but is caused to flow against a cloth filter arranged at an acute angle. The result is that the momentum of the air and dust particles causes the latter to glance off, but allows the air to pass through. In this way the dust is thrown off to one side, where it collects, instead of stopping up the interstices of the fabric. As much as a peck of dust has been collected in a single month in this manner. The efficacy of the filtering was tested by means of a painted board. Before the filter was placed in operation a freshly-painted board was placed in the bottom of the duct and allowed to dry. Of course, when examined it was found to have a granular surface caused by the particles of dust catching in the paint and drying there. After the filtering device was placed in operation another freshly-painted board was placed in the same duct and when examined afterward it was found to have dried perfectly smooth, showing the absence of dust. When the apparatus was first installed its efficacy was not apparent, as a large quantity of dust had accumulated in the ducts and flues, and this was gradually distributed in the rooms as before. This was removed, however, by reversing the current of air and increasing the speed of the fans so as to produce a small gale, which cleared the dust from its lurking places once for all. Since then the absence of dust in the rooms has been quite noticeable.

A Scandinavian Medical Conference was recently held in Copenhagen. It is said to have been largely attended by physicians from Sweden, Norway, Denmark, and Finland, and to have been a very successful gathering.

The Southern Surgical and Gynæcological Association will hold its next meeting in Atlanta on the 13th, 14th, and 15th of November, under the presidency of Dr. A. M. Cartledge, of Louisville. The secretary, Dr. W. E. B. Davis, of Birmingham, Ala., informs us that the prospect is that the meeting will be very successful.

The Medical Society of City Hospital Alumni, St. Louis.—The programme for the meeting of Thursday evening, September 6th, was as follows: Presentation of patients illustrating chorea and others with tabes dorsalis, by Dr. Given Campbell; and presentation of pathological specimens of aneurysm and arteriosclerosis, by Dr. Clarence Loeb.

Scarlet Fever in Harlan, Ky.—According to the *Louisville Evening Post* there has recently been a rapid spread of a disease diagnosticated as scarlet fever. One death has resulted, the victim being a two-year-old child. There are several cases. The board of health will take such steps at once as will be necessary to put the epidemic under control.

The Reorganization of the Medical Staff of St. Peter's Hospital, Albany, was effected on September 3d. The new staff is as follows: Consulting surgeon, P. J. Keegan, M. D.; consulting physician, T. K. Perry, M. D.; attending physicians, Henry Hun, M. D., H. Van Rensselaer, M. D., A. MacFarland, M. D.; attending surgeons, S. R. Morrow, M. D., William Hailes, M. D., J. V. Hennessy, M. D.; ophthalmic surgeons, G. S. Munson, M. D., T. F. C. Van Allen, M. D.; abdominal surgeon and gynæcologist, John B. Harvie, M. D.; surgeon for diseases of the nose and throat, E. F. Theisen, M. D.; obstetrician, J. F. Reilly, M. D.; pathologist, George Blumer, M. D.

Primary Department: Surgical, W. J. Wansboro, M. D.; medical, T. L. Carroll, M. D.; surgeon for diseases of the skin and genito-urinary organs, T. W. Wilsie, M. D. House staff: Physician, Waldron A. Stearns, M. D.; surgeon, W. Gansevoort Mack, M. D.

Typhoid Fever in Paris.—Typhoid fever is said to be attaining in Paris almost an epidemic form. According to the official medical bulletin there had occurred 3,148 cases, 518 ending fatally, from the beginning of the year up to August 13th. The water is condemned as the cause of the disease, for it is said that one of the sources from which Paris is supplied is known to be infected with the typhoid bacillus.

The Essential Factors for the Cure of Inguinal Hernia in the Male.—Dr. Henry O. Marcy, of Boston, in an address delivered before the New York County Medical Association at its annual meeting, held at the New York Academy of Medicine in June, announced his theme as The Thousand-year Old Problem—The Cure of Hernia—Its Solution. Dr. Marcy devoted a considerable share of the evening to the discussion of the anatomy and relationship of the parts involved in inguinal hernia, in which he was greatly aided by the photographs of the magnificent plates from Camper, Cooper, Scarpa, Cloquet, Bourgery, and others of the older writers. No subject in surgery, he said, furnished such a wealth of artistic reproduction as did hernia. Cooper's incomparable two volumes upon hernia, published in 1804, cost five thousand pounds sterling for the illustrations alone. Only the best artists were employed, and the reproductions were faithfully made by measurement exactly to life size.

Scarpa, whose work was published in 1812, illustrated freely with a delicacy of artistic finish even superior to that of Cooper, while Bourgery's masterpieces, all hand-colored, had never been excelled.

The speaker emphasized the need of studying anew the anatomic relationship of the parts concerned in inguinal hernia, since the solution of the problem of cure depended upon an accurate restoration of the structures to their normal condition. Special stress was laid upon the normal distribution and relations of the parietal peritonæum about the cord. He stated that the anatomy of the infundibuliform process of the peritonæum as usually taught to-day was erroneous. It could be traced back to the teachings of Cloquet, whose masterful work upon hernia, the speaker said, would ever remain a monument to his genius. This celebrated Frenchman dissected over five hundred subjects of hernia before he published his work, and it was not to be wondered at that he described as normal the incipient changes due to imperfect development. Dr. Marcy believed it easily demonstrable that, when the internal ring had gone on to complete normal development, the peritoneal lining of the abdomen lay smoothly over it without depression, and that the inguinal canal traversed the abdominal wall so obliquely that the intra-abdominal pressure compressed its walls producing a valve-like opening through the canal. It was true, said the speaker, that traction upon the cord produced a depression in the peritonæum at the site of the internal ring, but it was only in this way that a post-mortem demonstration could be made of the infundibuliform process. When this depression occurred otherwise it was due to incomplete closure of the internal ring and this was commonly the first cause of inguinal hernia.

The author's experience in abdominal surgery had afforded him ample opportunity for the demonstration of these conditions upon the living subject. The accurate observations of Camper, Cooper, and Scarpa showed that they considered the normal condition of the internal ring as closed from below upward, leaving the internal opening through the abdominal wall only sufficiently large for the escape of the cord and its vessels, and for their free mobility. A careful study of these early writers also demonstrated the exceptional reenforcement of the strong fascia about and beneath the internal ring, to which reenforcement was due the resisting nature of the posterior wall of the inguinal canal. The older writers also taught that it was owing to the restraining power of these structures that hernia was prevented in the male. Illustrations from special dissections were made by Sir Astley Cooper to demonstrate this, and for a considerable period this reenforcement of the transversalis was called the *Fascia Cooperi* by the English anatomists and surgeons. After the publications of Cloquet the importance of these studies was overlooked and probably considered of little value, since in no way did they form important factors in the surgical problem as then understood.

The history of the operative measures undertaken for the cure of hernia from the days of the Romans was next traced by the speaker. The early surgeons operated, not alone for the relief of strangulated hernia, but often, also, for the purpose of effecting its cure. Little progress, however, was made, and at the commencement of the present generation the general consensus of opinion forbade operations except for the relief of strangulation of the abdominal contents. Emboldened by the results of antiseptic surgery, free dissections were made by a few operators for the cure of hernia. After the reduction of the contents of the sac, this peritoneal pouch was subjected to many forms of treatment, such as suturing it at its base, and filling the sac with various dressings, in order to induce so-called adhesive inflammation. The next step in progress was that of Mr. William Macewen and Dr. Joseph D. Bryant, who utilized the sac. The former, after dissection of the sac to its base, intrafolded it and introduced it within the ring for the purpose of filling the same and causing it to serve as a buffer to deflect the intra-abdominal pressure from the opening.

Dr. Bryant divided the sac and interwove it between the pillars of the ring in order to utilize it, so to speak, as a vivified suture. For the most part, surgeons hesitated to accept Mr. Macewen's teaching, fearing that the sac would become devitalized and thus prove of itself a source of serious danger. Others thought that it would serve as a buttress. Even when vivified it was likely rather to act as a wedge and force open the tissues about the internal ring.

The next improvement in technique was the freeing of the sac quite within the ring, twisting it rather firmly upon itself in order to make the peritonæum tense, and fastening it by suture and ligature at the internal ring, excising the sac, as advocated by Mr. Banks. The before-named operators sutured the conjoined tendon to Poupart's ligament and closed the wound, usually employing drainage. A large number of cures were effected by these methods, which were in common use by the few who had operated up to this time for the cure of hernia.

In 1891 Dr. William T. Bull, of New York, contributed an article based upon the study of 119 cases, in which hernia had returned after operation by various methods. In the larger number of these cases the method of Czerny (excision of the sac and suture of the pillars of external ring) and the so-called *open* method of Dr. Charles W. McBurney had been followed. Dr. Bull declared that the majority of the cases reported were certainly improved by operation, and stated that "these straggling notes do not afford any valuable evidence as to the comparative reliability of the different methods, but only emphasize lack of premise to effect a cure."

The origin of the operation for the cure of hernia by excision of the sac and suture of the external pillars of the ring, the author said, had generally been credited to Professor Czerny, of Heidelberg. We found, however, as might have been expected from the author of antiseptic surgery, that ten years prior to Czerny, viz., on July 30, 1869, Mr. Lister had operated in this manner. In his careful report of the case operated upon for the cure of a strangulated inguinal hernia he opened the sac, freed the constriction, washed the intestine with a one to forty solution of carbolic acid, ligated and removed a small portion of omentum, and closed the wound by interrupted catgut sutures. On August 7th he writes: "Some of the stitches have been absorbed in their deeper parts and have been lifted off. Some others have been divided. . . ." August 11th: "The wound is found stretched considerably; edges are cicatrizing and no odor." From the foregoing it is very evident that Mr. Lister's sutures were not buried, but were through-and-through, cutaneous, interrupted sutures.

Bassini's first report of his method of operation was made in 1888 before the Congress of Italian Surgeons. In his method the canal was closed by suturing the internal oblique and transversalis to the shelving portion of Poupart's ligament with a continuous catgut suture, and the cord was covered over by the aponeurosis of the external oblique which had been carefully retracted during the deep suturing.

Halsted, in 1893, recognizing that the serious defect in the previous operations for the cure of hernia lay in the lack of reenforcement about the structures of the internal ring, recommended the radical departure from any former proposal, of transplanting the cord entirely through a new opening in the abdominal wall at the site of the internal ring. In order that this opening might be still further minimized, he cut away "all but one or two of the veins of the cord." This method, the speaker said, had been justly criticized, since a number of the author's cases had been followed by atrophy of the testicle. Dr. Marcy had himself seen four cases thus operated upon in which a small direct hernia had supervened. This was not surprising, since Nature's indirect valve-like opening of the inguinal canal was replaced by a small direct opening through the strong abdominal wall. The cord was also much more liable to injury since its only protection was the subcutaneous adipose layer of tissue.

Dr. Fowler, of Brooklyn, modified this method by transplanting the cord to an opening through the abdominal wall at a point superior to the site of the internal ring and nearer to the median line. Slight modifications had been made by other operators by transposing the fascia in various directions for the purpose of reenforcing the weakened structures.

Apologizing for a brief reference to his own labors in regard to the attainment of a perfect cure for hernia, Dr. Marcy said that his first publication upon this subject occurred in November, 1871, and reported two cases in which he had used buried catgut sutures for the purpose of reenforcement and closure of the abdominal wall. In these cases primary union and permanent cure followed. He was early convinced from the study of his dissections that the normal anatomy of the inguinal canal prevented hernia by the disposition of its axis at nearly a right angle to the intra-abdominal pressure, which disposition produced a valve-like closure of the canal not unlike the passage of the ureter through the wall of the urinary bladder. He had early formulated and put into execution the plan for the *reconstruction* of the inguinal canal to its normal obliquity and dimensions. This demanded a free dissection of the parts, the removal of the sac and its closure at its base, the suturing of the relaxed weakened structures from below upward, and the reconstruction of the internal ring, sutured closely posterior to, and beneath, the cord. For this purpose he advocated as essential the use of an absorbable suture, and since 1882 he had used exclusively the tendon from the tail of the kangaroo. He believed that he was the first to make use of buried absorbable sutures and to apply them for the cure of hernia. After the replacement of the cord, he continued, the divided structures were carefully sutured over it, uniting the conjoined tendon to Poupart's ligament so as to reform the external ring. The external tissues were coaptated by a *subcuticular* continuous tendon suture, and the wound sealed with iodoform collodion without drainage. In 1881, at the International Medical Congress in London, he had contributed a paper formulating the essentials of his method and had advocated the use of tendon sutures from the caribou and moose. At the Copenhagen Congress, in 1884, he had recommended the use of the tendons from the kangaroo.

Dr. Marcy next reported his present experience, which included about five hundred operations for the cure of hernia of all varieties without a fatal result, except from intestinal complications. He considered two per cent. an ample allowance for accidental wound infection, and his procedure retained the patient in bed a shorter time than was formerly considered essential, localized rest of the structures being all that was required. In conclusion he summarized the essentials for the cure of inguinal hernia in the male as follows:

First.—The safe restoration of the abdominal contents.

Secondly.—Dissection and freeing of the sac quite within the internal ring, suturing it at its base and resecting it.

Thirdly.—Reconstruction of the posterior wall of the inguinal canal and internal ring, so as to restore the canal to its normal obliquity.

Fourthly.—Replacement of the cord and careful suturing of the external structures.

Fifthly.—Subcuticular closure of the wound and sealing of the parts with iodoform collodion reenforced by a few fibres of cotton. The operation, of course, should be conducted with all modern aseptic care.

Diphtheria in South Camden, Pa.—A serious outbreak of diphtheria was reported at the end of August in South Camden, Pa. The affected district is a crowded one of poor families. Vigorous disinfection measures were at once instituted.

Compulsory Vaccination Trouble.—Trouble has arisen at New Bedford, Mass., in consequence of the small-pox there. A medical officer of the board of health is asserted to have forcibly vaccinated two children against their parents' wishes. The parents have applied for a warrant. There can be no doubt as to the legality of compulsory vaccination in that vicinity. The parents, however, assert that they preferred the services of their family doctor and objected to the vaccination by the health officer. It is more than likely, however, that there is considerable misunderstanding in the case, for it is highly improbable that forcible action would be taken by the health officer without preliminary notice requiring the parents to get the operation done elsewhere, or to submit the children to him in due form.

An Asiatic Woman a Doctor of Medicine.—According to the *Albany Medical Annals* for September the first Eastern woman admitted to the licenses of the Royal College of Physicians and Surgeons of Ireland recently received her diplomas. The lady is a Parsee, Miss Aunnie M. Treasurywala, and she appeared at the capping ceremonial in the full costume of her caste. It is said that she made a most brilliant examination for her final, having been the only candidate who passed with honors.

The Drying of Damaged Grain.—The offensive, if not noxious, odors arising from the drying of damaged grain have been stirring up trouble in Buffalo. Over a year ago, it is said, Dr. Wende upon the part of the health department asked the common council to provide an ordinance designed to protect the public from such stench nuisances. This ordinance provided that all persons or corporations who proposed to engage in the business of drying damaged grain must first secure a license upon the recommendation of the health department. It then made this prohibition upon penalty of a fine of $250: "No person, firm or corporation carrying on such business as aforesaid shall allow the fumes, vapor or any offensive odors, given off in the process of drying such grain, to escape into the open air in such a manner as to cause or tend to cause injury, discomfort or annoyance to any person or persons or to the public."

This resolution was in the hands of the committee on ordinances for a year without being reported. Last March Dr. Wende again called attention to the matter, but his communication and the resolution itself were allowed to die in the committee box.

The *Buffalo Enquirer* for August 29th very sensibly says: "If the people of Buffalo are indignant, as they have a right to be, let them vent their anger upon their aldermen and particularly upon the members of the committee on resolutions, who are primarily responsible for the lack of an explicit measure protecting us from the condition which now exists."

Anti-cholera Inoculation in India.—A recently issued parliamentary blue book, according to the *Evening Post* for August 30th, contains a report by Surgeon-Captain Vaughan, Deputy Sanitary Commissioner of the Western Bengal Circle, in relation to the inoculation of coolies employed by tea planters. In consequence of the evil conditions to which these laborers are exposed on shipboard, cholera has always been exceedingly virulent and fatal among them. At first it was very difficult to get any of them to submit to treatment, but now the advantages of inoculation have become so notorious that the men are beginning to seek it of their own accord, and the tea planters are inserting special clauses in their contracts calling for inoculated coolies in preference to any others. In some of the tea districts, in which the mortality used to be very high, cholera has practically been exterminated. Professor Haffkine's notes on a series of experiments carried on in Calcutta show that the results, considered as a whole, were as follows: 654 uninoculated, 71 deaths (10.86 per cent.); 402 inoculated, 12 deaths (2.99 per cent.). Proportion, 3.63 to 1; reduction of mortality by 72.47 per cent.; or for every eleven deaths among the uninoculated there were only three deaths among the inoculated.

Original Communications.

THE TREATMENT OF CHRONIC CYSTITIS IN THE FEMALE BY CURETTEMENT OF THE BLADDER, AND INSTILLATIONS OF CORROSIVE SUBLIMATE.*

By CHARLES GREENE CUMSTON, M. D.,
BOSTON.

Severe and painful types of chronic cystitis are frequently met with in the female, and are very prone to be most rebellious to ordinary means of treatment. In this paper it is the purpose of the writer to describe the technique of a method of treatment applicable to these cases and due to the scientific researches of Guyon, of Paris, and his followers.

Before describing the technique of curettement of the bladder in the female, as well as that of instillations of bichloride of mercury, it may not be out of place to first consider, in a brief manner, the pathological anatomy and the physiology of the bladder, in order that we may better understand the proper application of the treatment here advocated. Tuberculosis of the bladder is far more frequent as a primary lesion than many are led to suppose, and the seat of tuberculous lesions in the bladder, and those of chronic non-tuberculous cystitis, have been carefully studied and described by Clado. According to him the principal, and nearly exclusive, seat of these lesions is in the mucous membrane of the urinary reservoir. The tuberculous granulation has its starting point in the mucous membrane itself, and particularly in that part of the mucous tissue which is in contact with the epithelium of the bladder; in other terms, in the most superficial layers of the structures composing the organ.

In a bladder in which ulceration has not yet taken place, the granulations, when they are still small, project very perceptibly above the surface of the mucous membrane. When ulceration has taken place the lesion may be quite deep, and may even involve or extend beyond the muscular structures. But along with these, other ulcerations will be found which are so superficial that they hardly more than involve the mucous membrane. If a section is made through one of these granulations, or through a superficial ulceration of the mucous membrane, the microscope will show that the granulation has developed immediately *under* the epithelium and projects directly into the cavity of the bladder; the epithelium has disappeared at the site of the lesions. Under the tubercle the mucous membrane may be nearly normal or thickened. In other words, the tubercle does not involve the deeper layer of the mucous membrane at the beginning of its development. If a section is made through an ulceration it will be found that the lesion involves the same structures as the granulation which gave rise to it.

In chronic cystitis, as in the tuberculous form of the affection, the mucous membrane is also the almost exclusive location of the lesions. It is softened and is easily torn when the surface of the bladder is scraped with a sharp instrument, or, for that matter, with a dull one. The mucous membrane is thickened and only adheres slightly to the underlying structures, while in certain cases the pathological process may have given rise to the production of false membranes, granulations and villous productions.

The lesions are not dispersed over the bladder haphazard, but, on the contrary, show a marked predilection for certain parts of the bladder and the urethra, such as the trigonum, around the mouths of the ureters, the neck of the bladder, and posterior urethra. When the lesions involve the entire surface of the organ, a condition which is rather exceptional, the above-mentioned parts, and more especially the neck of the bladder, are more particularly involved, and the lesions here will be found of longer standing and more advanced in their evolution. The practical conclusion which naturally comes of these remarks is, that it is easy to reach the diseased structures with a curette, provided that they are very superficial and not far away from the neck of the bladder. In tuberculosis the disease attacks the bladder probably quite as often as the kidney, and Guyon believes that the latter organ is infrequently the initial site of this affection. Consequently, we may assume that in certain cases a radical cure of tuberculous cystitis may be obtained.

From what has been said, one may easily see that in most cases a curettement of the entire surface of the bladder is unnecessary. Even should the surgeon desire to curette, it would be almost impossible to carry it out effectively through the female urethra, especially if the bladder were filled; because in this state the wall of the organ is not resistant and flies away from the pressure exercised by the curette, and for this lack of resistance a curettement performed under these conditions could not be carried out effectively. This is fortunately not the case when we operate on an empty bladder, because it is demonstrated physiologically that the transverse diameter of the bladder is nearly always constant when the bladder is empty. In order to expel the urine the fundus of the organ approaches the neck until it is in contact with it, while the summit becomes lowered and the fundus rises up. But the complete obliteration of the cavity is, above all, accomplished when the posterior wall is in apposition with the anterior wall, and Sappey says that in the state of vacuity the internal surface of the bladder presents two surfaces and three borders; the two surfaces are triangular in shape and touch each other; the anterior surface is hidden behind the pubes, while the posterior is in direct relation with the uterus and anterior vaginal wall.

Let us suppose now that, the bladder being completely empty, we introduce one or two fingers into the vagina and with them push upward and forward the anterior cul-de-sac; we thus realize the point of resistance which was wanting over the posterior surface of the bladder. Under these circumstances we can curette the anterior aspect of the bladder by the resistance offered by the pubes, while the posterior surface can be gone over with the curette against the fingers introduced into the vagina. The apex and the lateral borders are less easily reached by the instrument, but, as has already been said, the lesions, when they are present here, are always less numerous and more advanced than in other portions of the organ.

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* Read before the American Association of Obstetricians and Gynæcologists, at the meeting of September 18, 19 and 20, 1900.

We will now consider the technique of instillations of the bichloride solution, but in the first place I would call attention to the reason why this method is preferable to irrigation of the organ. In cases of cystitis, and particularly in those where much pain is present, vesical irrigations should be proscribed as being less efficacious than instillations, not only by their effect on the general progress of the disease, but also because they must be considered dangerous. Sublimate instillations produce less pain than those of nitrate of silver. When vesical tuberculosis was first treated by local applications, instillations of nitrate of silver or a solution of creosote in glycerin were used and were always followed by little or no success, and in most cases the affection was badly influenced by them. The pain was increased and the lesions appeared to make more rapid progress. On the authority of Guyon, whose experience is very large in this matter, it may be said that corrosive sublimate may be employed advantageously in *all* cases of cystitis and that the result of its use will, in a large measure, be successful.

In gonorrhœal cystitis sublimate instillations both in the male and female have given us excellent results, but they are particularly applicable in the chronic forms which persist indefinitely even though all urethral discharge has disappeared. Chronic gonorrhœal cystitis, which is usually of the painful variety, is often most rebellious to treatment with nitrate or citrate of silver, and oftentimes instillations have given excellent results, and this has been my experience in the few cases I have treated.

In cases of acute cystitis or those produced by catheterism, in the cystitis accompanying hypertrophy of the prostate, and in those cases where the nature of the affection is still poorly understood, and which are more particularly met with in the female, I have obtained excellent results with instillations of sublimate. Of course we exclude those cases of cystitis which are produced by the presence of a calculus, and are cured when the foreign body has been removed; also those cases where the bladder is the seat of a neoplastic production. To sum up, we may say that instillations of sublimate may be employed with advantage in all cases of cystitis, and the effect is still more remarkable in the tuberculous variety, as well as in all those cases in which pain is a predominating element.

The instruments necessary for intravesical instillations are a syringe with a capacity of four cubic centimetres, preferably one made with a glass reservoir and rubber mountings so that the salt will not attack it, and a small perforated bulbous catheter, not larger than a 12 or 14 French scale. The patient should be instructed to empty the bladder immediately before the operation, so that the therapeutical agent will not be diluted by the urine, and also so that it may come into direct contact with the lesions.

The syringe is then filled with the solution, its point is introduced into the end of the sound, and a little of the solution pushed through it so as to drive out the air. The sound is then gently introduced into the bladder and the quantity of liquid is slowly injected. In the male it is better to instil the solution in the posterior urethra when withdrawing the sound, and it is important that the posterior urethra should be treated, because it always participates in the inflammation of the bladder. In those cases in which there is no pain during instillation of the bladder, but when the posterior urethra is painful, we sometimes can do without treatment of the latter, and patients will nevertheless get well. During this treatment we can only be guided by an attentive observation of the effects produced and the results obtained, and this can be our only guide in carrying it out.

After the sound has been withdrawn, it is well to tell the patient to turn first on one side, then on the other, and then on the abdomen, so that the solution shall come in contact with all parts of the mucous surface of the organ.

The first instillations are occasionally somewhat painful, and also when the strength of the solution, or its quantity, is increased pain may be complained of; but when the treatment is carried out carefully the pain is always of short duration, and the use of cocaine or eucaine is not really indicated except, perhaps, when we are using a 1:500 solution of sublimate.

In principle, the instillations should be given every day, so that the bladder may be kept in as constant a state of antisepsis as possible, but it is more prudent, perhaps, when we gradually reach the use of rather strong solutions, such as 1:2,000, 1:1,000, or 1:500, to carry out the treatment in the first place only every other day, and after this, when it is well borne by the patient, to continue it every day. This question is entirely one of judgment on the part of the surgeon, and definite rules cannot be laid down, because, first of all, we should study *the sensibility of the patient, the effects produced by the sublimate, and the reaction that it causes,* and on this knowledge we can base the proper method of carrying out the treatment. This is a most important point in the treatment, because, otherwise, a contrary result to the one desired will occur, and consequently great prudence must be exercised. This is a rule of general surgery, and nothing more.

Generally speaking, we may commence in the adult with a solution of 1:4,000 and in the child 1:5,000; more diluted solutions than these are too weak to be of any therapeutic value. *The strength of the solution is to be progressively increased according to the tolerance of the mucous membrane of the bladder.* It may be said that in recent cases of cystitis, no matter what their nature may be, it is useless to use solutions stronger than 1:2,000 or 1:1,500. Generally speaking, also, the older the case of cystitis, the more difficult and longer it is in yielding to treatment; but of all the types of this disease the tuberculous is the hardest to cure and requires much perseverance on the part of the surgeon.

As to the quantity of liquid to be instilled, it has seemed to me that from *2 to 4 cubic centimetres* is the proper amount, and from *10 to 15 drops* in the neck of the bladder and the deep portion of the posterior urethra. More than this quantity is useless and to my mind injurious, and is certainly very painful to the patient.

The solutions of sublimate should never be made with alcohol, for they are very painful, irritating, and badly tolerated by the patient. A tablet composed of 25 centigrammes of bichloride of mercury and 1 gramme of tartaric acid is very convenient, one of these dissolved in a litre of water making a solution of 1:4,000. I am not aware whether any local or general accident has ever been produced by the treatment of cystitis with sublimate instillations, but at least none has ever occurred in my hands.

The instruments necessary for curettement of the bladder are few and simple. A long, narrow Récamier uterine curette, a large metal catheter with two good-sized eyes, and an irrigator are all that are necessary. A double-current metallic catheter is absolutely useless and should never be employed. I would also say that I have tried to curette the bladder through Kelly's cystoscopes and have never been able to accomplish anything. For this operation general narcosis is essential.

The patient is placed in the lithotomy position, and after the external genital organs and the vagina have been rendered entirely aseptic, the bladder is thoroughly irrigated with a three-per-cent. solution of boric acid. The solution should be allowed to enter the bladder under a sufficient pressure so that the irrigation may be thorough, and after a litre or two have been used, the bladder is to be completely emptied for the reason already pointed out.

Two fingers of the left hand are introduced into the vagina and the curette is then inserted into the bladder. The fingers in the vagina should be made to reach the anterior cul-de-sac and then by upward pressure they are made to form a resisting surface over which the curette is drawn from above downward.

A certain amount of force is necessary to scrape the mucous membrane, but care must be taken not to perforate the bladder. It is not necessary to be too fearful of this accident, because it is only by considerable violence or brutal treatment that it can be produced. It is well to withdraw the curette, bringing with it a few strips of mucous membrane removed by the instrument, and by this means we can ascertain the degree of pressure necessary for the proper execution of the operation. I usually first scrape the posterior wall of the bladder and then withdraw the curette and thoroughly irrigate the bladder with normal salt solution in order to remove every bit of débris. Then the curette is introduced again, and the anterior wall of the bladder, the neck of the organ, and the upper wall of the urethra are curetted in their turn.

The operation is terminated by a very abundant irrigation of salt solution, because every atom of débris of mucous membrane, fungous particles, and blood clots must be completely removed from the organ; for if they should accumulate within it and should undergo decomposition they would naturally be a source of infection. The first part of the irrigation is usually quite bloody, but after a while the liquid will flow from the bladder perfectly limpid. A Pezzer sound is then introduced and the patient put to bed.

The after-effects of this operation are very simple, and I have never known any hæmorrhage amounting to anything occur, but if much blood is being lost a four-per-cent. solution of antipyrine in irrigations, or an instillation of a concentrated solution of ferripyrine, will easily control the bleeding. If performed with all due antiseptic precautions, the patient should never have a rise of temperature after the operation.

As to the after-care, the principal thing is to see that the sound works perfectly. It is not infrequent to find that the sound becomes clogged up by blood clot, especially in cases of hæmorrhagic cystitis, but all that is necessary in this case is to inject some boric acid solution to remove the obstruction. The sound should be left in place for at least twelve or fifteen days; it is very common, however, to find that the sound irritates the bladder and the urethra after a few days, but this is usually overcome by removing the instrument and introducing a new one.

Before relating the cases that I have treated by this method I would offer the following conclusions, which are based not only upon my own experience, but also upon that of others. (1) Sublimate instillations will often produce *a very great improvement in the distressing symptoms* met with in both tuberculous and non-tuberculous cystitis, such as a diminution in the frequency of micturition, a decrease of the pain, an increase in the capacity of the bladder, and an improvement in the condition of the urine. In *some cases* a complete cure may be obtained. (2) When the instillations *fail to produce the desired effect,* curettement of the bladder is indicated in both tuberculous and non-tuberculous cystitis. (3) In gonorrhœal cystitis instillations of sublimate are particularly efficacious and rapidly subdue the pain. (4) Under favorable circumstances a radical cure of primary tuberculous cystitis may be obtained by curettement when *the vesical lesions are localized and the kidneys free from the* *disease.* Curettement *per urethram will not* allow the surgeon to reach the entire surface of the bladder, so that *when the lesions are extensive they should be directly treated by suprapubic cystotomy.* (5) Much relief may be afforded by curettement to a large number of patients suffering from tuberculosis of the bladder, but who on account of the advanced stage of generalized infection are in no condition to undergo a more radical operation. (6) When cystitis is due to a prolapsus of the genital organs, and when *hysteropexy, combined with anterior and posterior colporrhaphy,* does not relieve the bladder symptoms, curettement of the bladder, followed by sublimate instillations, is the proper treatment.

Case I.—Mrs. A., aged 34, mother of three children, all of whom are healthy, has complained of cystitis for the last three years, the principal symptoms being severe pain during and following micturition, which act has to be accomplished about every hour and a half during the day and night. The patient has lost 12 pounds within the last five months and is troubled with constant cough.

The left lung is somewhat dull on percussion at the apex, and some few fine crackling râles are to be heard. Bimanual examination of the bladder reveals exquisite tenderness when the organ is pressed between the fingers. The right kidney is slightly enlarged, but not very tender on pressure. Analysis of the urine shows an acid reaction and microscopically an abundance of pus, bladder cells, and a few red blood corpuscles. Koch's bacillus is present. The capacity of the bladder is seventy cubic centimetres only.

Injections were made every other day for three weeks with the following formula:

℞ Iodoform	15 parts;
Glycerini	50 "
Aq. dest.	300 "

forty cubic centimetres being injected into the bladder at each séance. Finding that no improvement took place, and that the pain was by no means lessened, curettement of the bladder was performed. Drainage of the bladder with a Pezzer sound was continued for a fortnight, and after this sublimate instillations were used beginning with a 1-4,000 solution. After twenty-five instillations the pain had almost entirely disappeared, the patient urinated about every three hours during the day and twice during the night, while the capacity of the bladder had increased to one hundred and five cubic centimetres. The instillations were continued for about two months, increasing their strength until a solution of 1-1,500 was reached.

At the end of this time the patient was so much relieved that she discontinued treatment, although against my advice. This was two years ago, and the condition of her bladder has remained very nearly the same as when the treatment was discontinued, although the patient is slowly dying from the tuberculous process in her lungs.

Case II.—Miss B., aged 21, a native of Ireland, had been in this country about one year. For the last six months had complained of great pain before, during, and after micturition, the frequency of which was now about every hour during the day, and four or five times during the night. The capacity of the bladder was ninety-five cubic centimetres. The urine was acid in reaction, containing much pus and bladder cells, but microscopically there was complete absence of Koch's bacillus. However, by cystoscopic examination three small superficial ulcerations were found surrounding the orifice of the left ureter, and the surrounding mucous membrane was studded with small typical tubercles.

Nothing could be discovered in the lungs or abdominal viscera; the kidneys could not be palpated, and there was no tenderness along the ureters. The bladder was curetted and drained with a Pezzer sound for twenty days, after which time instillations of sublimate were commenced.* At the end of two months and a half the capacity of the bladder had reached one hundred and sixty cubic centimetres, the patient urinated about every three hours during the day and once or twice during the night. Pain had almost entirely disappeared and very little pus was found in the urine. The patient was seen five months after the treatment had been stopped, and was found to be in very good shape. Unfortunately she would not consent to a cystoscopic examination, so that I cannot say whether the lesions of the bladder had been entirely removed or not.

Case III.—Mrs. C., aged 41, with pulmonary tuberculosis and genito-urinary tuberculosis in advanced stage, has complained of great pain and frequent micturition for the last five months, and these symptoms are increasing in severity. Bladder extremely tender by bimanual examination. Bladder capacity seventy-five cubic centimeters. Urinates about every half hour, day and night. Urine, acid, extremely purulent, and occasionally containing much blood.

Sublimate instillations were begun, and after two weeks the pain had greatly diminished and the patient could retain her urine for about three quarters of an hour. At the end of six weeks she could retain her urine from an hour and a quarter to an hour and a half, and the bladder capacity had increased fifteen cubic centimetres. The treatment was continued for three months and a half till the patient died, but the relief obtained by the sublimate instillations was very great, and rendered the patient's life much more bearable.

I shall now report two cases of cystitis produced by prolapsus of the genital organs which were not benefited by ventrosuspension and a plastic operation on the posterior and anterior vaginal walls, and in which curettement of the bladder, followed by instillations of sublimate, produced a cure.

Case IV.—Mrs. D., aged 43, a robust and healthy woman, very corpulent, mother of nine children, applied at my clinic for a prolapsus of the uterus and vagina following her last labor two years ago. The patient complained as much of her bladder as of the inconvenience she suffered from the prolapsus of her genital organs. She could not retain her urine for more than two hours during the day, and was obliged to void it at least four times during the night. Micturition was followed by very severe pain, which was slowly wearing the patient out.

Hysteropexy and posterior and anterior colporrhaphy were performed, and the patient left the hospital in excellent condition four weeks after the operation. She, however, returned three months later saying that, although her uterus gave her no trouble whatsoever, still the bladder symptoms remained the same as before the operation. Bimanual palpation showed that the uterus was nicely held in place, but the bladder was extremely sensitive. The urine was alkaline in reaction and contained a large amount of a white flocculent sediment which microscopically showed an abundance of bladder epithelium, some pus cells, and numerous oval and rod-shaped bacteria, which were probably the colon bacillus. She was given the following prescription:

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*A few months previously I had treated a localized vesical tuberculosis in a little girl by the application of a sixty-per-cent. solution of lactic acid, but this patient could not be persuaded to have the cystoscope introduced, so this treatment was abandoned.

℞ Salol. . . . . }
Tinct. hyoscyam. } . . . . .aa. 30 parts;
Infus. buchu q. s. ad. . . . . 180 "
M.

A tablespoonful three times a day.

After a trial of three weeks with this treatment the bladder symptoms remained the same, so curettement of the organ was advised and performed. The urinary reservoir was drained for two weeks with a Pezzer sound, and then sublimate instillations were begun. These were carried out for about six weeks, at the end of which time all pain had ceased, the patient only urinated every four hours during the day, and was only obliged to empty the bladder once during the night. This was done three years ago and the patient is perfectly well at the present time.

Case V.—Mrs. E., aged 67, menopause at the age of 48. Had always enjoyed excellent health, and is at present a very healthy subject for her age. Patient presented a total prolapsus of the uterus and vagina, and although this caused her very great annoyance, she still complained more bitterly of the severe pain produced during and after micturition. The urine was neutral in reaction and contained a large amount of mucus and pus. By bimanual palpation the bladder was not found to be very sensitive.

Hysteropexy and anterior and posterior colporrhaphy were performed successfully, but after the operation the bladder symptoms were in no way relieved, and the patient could not retain her urine longer than two hours during the day, and was obliged to pass it several times during the night as well. It still contained the same amount of mucus and pus as before the operation.

The exhibition of urotropin, continued for some time, improved the purulent condition of the urine somewhat, but the pain and frequency of micturition remained practically the same, and instillations of sublimate were commenced. These were continued daily for three months, beginning with a solution of 1:4,000, and during the last three weeks of treatment a solution of 1:500 was used every other day. After a month of treatment the pain had greatly decreased, and by the end of the treatment it had entirely disappeared and the patient could retain her urine with ease for four or five hours. She was seen fifteen months after cessation of the treatment, and the cure had remained permanent.

Case VI.—Mrs. E., aged 27, mother of two children, was seen during an attack of acute gonorrhœal pelviperitonitis and cystitis, which had been present for about ten days, contracted from an acute gonorrhœa in the husband. She was treated by urotropin internally, and the irrigation treatment with permanganate of potassium, both of the bladder and uterus, was carried out successfully. After ten days the acute symptoms subsided and the treatment was continued with ichthyol glycerin suppositories.

On examination three months later, it was found that the bladder was very painful on pressure; there was much pain before, during, and after micturition, and the urine contained a good quantity of pus. Cystoscopic examination revealed a general hyperæmia of the bladder, and scattered over the trigonum were small patches of granular aspect. The uterus was enlarged and tender and presented a very deep bilateral laceration of the cervix.

The uterus was curetted, and Schroeder's amputation of the cervix was performed. Posterior colpotomy for exploratory purposes was also done, but the tube and ovary on each side were found practically normal in every respect, except they had contracted a few adhesions with the intestine which were easily broken up.

Instillations with a 1:100 solution of nitrate of silver were used in the bladder every third day, but after five *séances* it became evident that this treatment was only aggravating the symptoms already present. Urotropin was again administered for several weeks with but little success, all local treatment of the organ having been stopped. I then began instillations with corrosive sublimate, using them daily with a certain amount of relief from pain to the patient and a slight diminution in the amount of pus present in the urine; but after a prolonged treatment of seven weeks, as the bladder symptoms continued, currettement was performed, and a thick and rather vascular mucous membrane was scraped away.

The bladder was drained with a Pezzer sound for a fortnight. The result in this case was very striking. After the sound had been removed the patient had practically no pain during micturition, could retain her urine for four hours during the day, and was only obliged to empty the bladder twice during the night. The patient was seen about five months later and was found to be practically well.

Case VII.—Mrs. F., aged 43, a widow, not being able to withstand the temptations offered by the goddess Venus, committed an indiscretion in coitus resulting in the development of an acute gonorrhœal urethritis.

When first seen pus was flowing from the urethra. There was marked dysuria, far more than is usually met with in the female, and frequent micturition. The patient was ordered urotropin at the dose of fifty centigrammes five times a day, and the urethra was treated by permanganate of potassium irrigations. At the end of three weeks only a very slight mucous discharge containing a few gonococci, was present. The irritable condition of the bladder, however, still remained, and the patient was ordered to continue the urotropin three times daily. A urethral suppository of ichthyol, to be inserted every night on going to bed, was ordered.

I then left for my summer holiday, and when I returned, three months later, the patient presented the following symptoms: She could not retain her urine longer than two hours in the day time, and was obliged to empty the bladder three or four times during the night. Pain was particularly severe during and after micturition.

Cystoscopic examination revealed a marked hyperæmia of the trigonum, and here and there a few granular patches of the size of millet seeds were present. On bimanual palpation the bladder was not very tender, both kidneys could not be palpated, and there was no tenderness along the course of the ureters. The uterus was somewhat enlarged, a little tender, and the cervix presented a deep bilateral laceration. The tubes and ovaries could not be palpated, and there was complete absence of any tenderness in the lateral culs-de-sac.

The uterus was curetted, Emmet's operation on the cervix was done, and the bladder was curetted. The latter organ was drained with a Pezzer sound for two weeks. It is now two years and a half since this operation was done, and the patient has remained perfectly well and free from all old symptoms.

Case VIII.—Mrs. G., aged 25, mother of one child now five months old. The labor had been a long and tedious one, requiring the low application of forceps. There was a severe laceration of the perinæum, and a retention of urine followed, which necessitated the use of the catheter for ten days. Symptoms of cystitis soon developed, and continued to increase in severity.

I saw the patient five months after her confinement, and found her suffering with a rather severe form of cystitis, the principal symptoms being pain before, during, and after micturition and a constant desire to empty the bladder, the act only relieving the patient for a few minutes.

Instillations of sublimate were begun, and after seven weeks' treatment the patient was practically cured of all her symptoms. She returned, however, about five months later, stating that the pain was recurring, although not so severely as formerly, and that she was obliged to empty the bladder about every two hours and a half. The instillation treatment with sublimate was again begun, extending over a period of three months, and reaching a solution of 1:700. At the end of this treatment all symptoms had practically subsided, and the patient has remained well for the last nine months.

Case IX.—Mrs. H., aged 31, contracted a gonorrhœa which resulted in pelvic peritonitis and bilateral pyosalpinx. I performed posterior colpotomy after the acute pelvic symptoms had subsided, opened the pus pockets, and drained them. On account of the severe bladder symptoms and the very large proportion of pus contained in the urine at the time of the operation, although both renal glands were apparently perfectly free from any lesion, instillations of sublimate were begun three or four days after the operation. These were carried on daily while the patient was recovering from her operation on the tubes, and after five weeks time the pain accompanying micturition and the frequency of the act were greatly subdued.

Three months later the patient was seen again complaining of much dysuria. An abundant purulent sediment, which contained numerous oval and rod-shaped bacilli, was deposited when the urine was allowed to stand. These were in all probability the *Bacterium coli,* since the urine was very acid in reaction. Bimanual palpation showed that the lesions of the tubes had practically disappeared, the uterus was small, fairly movable, and no pain could be produced by pressure. Bimanual palpation of the bladder revealed a great sensitiveness in the organ. Cystoscopic examination showed a marked hyperæmia of the trigonum, more especially pronounced around the orifices of the ureters.

Instillations with a one-per cent. solution of nitrate of silver administered every third day, rather aggravated the symptoms, and they were discontinued. Urotropin was then ordered and taken for about a month with no other effect than to diminish the purulent condition of the urine. Curettement of the bladder was then performed; the organ was drained with a Pezzer sound for seventeen days.

After this the symptoms were much less severe, although at the present time, five months since the operation, the patient complains of a certain amount of pain following micturition, but the urine can be retained for nearly four hours during the day, and is only voided once during the night. The urine contains a small amount of mucus and pus.

Case X.—Mrs. I., aged 37, gives a history of an acute gonorrhœa about four years ago, and symptoms of cystitis have been present off and on ever since, although during the last eighteen months the pain at micturition has considerably increased and there is an increase in the desire to void the urine.

Instillations of sublimate were carried out daily for six weeks, and urotropin at the dose of fifty centigrammes four times daily was also ordered. At the end of this time the symptoms were so much improved that the patient discontinued treatment and I have not seen her since, so that I cannot say whether the good condition in which she was at the time she ceased to attend at the clinic has continued.

871 BEACON STREET.

GENERALIZED
TUBERCULOUS LYMPHADENITIS,
WITH THE
CLINICAL AND ANATOMICAL PICTURE OF PSEUDOLEUKÆMIA;
THE STUDY OF A CASE.

(FROM THE PATHOLOGICAL LABORATORY OF RUSH MEDICAL COLLEGE.)

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(*Continued from page 449.*)

SUMMARY: Briefly stated the findings in this case are:

1. Symmetrical hyperplastic lymphadenitis, of slow development and chronic course, beginning in the right cervical region, attended by enlargement of the spleen, slight irregular temperature, and general emaciation.
2. Clinical diagnosis of pseudoleukæmia.
3. Moderate secondary anæmia with a terminal leucocytosis of 19000.
4. Termination by extensive peritoneal and visceral tuberculosis and final infection with the *Staphylococcus pyogenes aureus.*
5. Post-mortem anatomical diagnosis of pseudoleukæmia with enlargement of the cervical, axillary, mediastinal peribronchial and retroperitoneal groups of glands, lymphoid nodules in the liver, spleen and lungs, fibrinoplastic peritonitis; no evidence of old or recent tuberculosis in the lungs.
6. Histologically, fibrous and cellular hyperplasia of the lymph glands and the spleen with areas of necrosis; tubercles in the liver, spleen, kidneys and peritonæum.
7. Tubercle bacilli in the lymphatic glands, spleen, peritonæum and in the lymphoid nodules of the liver and lungs; *Staphylococcus pyogenes aureus* and *albus* in the peritoneal fluid and *albus* in the lung.
8. Inoculation of pieces of the lymphatic glands into the peritoneal cavity of guinea pigs not positive of tuberculosis; death from suppurative lesions after ten and seventeen days respectively.

In the clinical and post-mortem findings of this case a picture is presented which seems to fully warrant the conclusion at first drawn, namely, that it was a case of pseudoleukæmia. The peritonitis does not belong among the anatomical findings of that disease, but it may be looked upon as a secondary or terminal process. The condition of the spleen was, perhaps, what should arouse a suspicion that a chronic tuberculous process was present. Such a suspicion was aroused at the time of the autopsy, and investigations were carried out to the end of determining that point. Yet while such gross anatomical lesions as those found in the spleen might have indicated a localized tuberculosis, it was left to microscopical and bacteriological examinations to reveal the existence of well-established general tuberculosis in the lymphatic and visceral lesions so plainly pointing to pseudoleukæmia. The anatomical findings are certainly not those of the ordinary form of tuberculous lymphadenitis.

It is disappointing that the inoculation experiments added so little confirmatory evidence to the presence of tubercle bacilli in the affected glands. Fortunately such evidence is in this case unnecessary. The failure of the inoculations to furnish it is to be explained by the poor technic of the operations. It is to be remembered that a single large piece of the gland was inoculated into the peritonæum in each case and that this piece of gland was found practically intact upon the death of the animal. It had undergone necrosis, but had not become disintegrated. Had the tissue been finely divided before inoculating, there can be little doubt but that the result would have been different.

It is easy to understand how in such a chronic wasting disease, with decreasing physiological resistance to infection, a tuberculosis might be added to an already existing Hodgkin's disease, thus making a complex and complicated anatomical condition. In the light of the completed findings, however, the interpretation of this case must be made upon a different basis.

There was not found either an old or recent tuberculosis in the lungs or the intestines, or in any part directly accessible to external infection, by which to explain the entrance of large numbers of tubercle bacilli into the blood or lymph streams and their general distribution. And if in some unknown way such an entrance of bacilli had taken place, why should their distribution to the already diseased lymphatic glands and lymphoid nodules be universal and practically all other parts be spared? It is more reasonable to suppose that tuberculosis of the glands of the right side of the neck was the primary affection. Although the microscopic examination does not show the ordinary picture of such a condition, the findings are as easily explained upon that basis as upon any with which we are familiar; and the finding of tubercle bacilli in tissues showing undoubtedly a chronic inflammation (fibrous hyperplasia and multinuclear cells) is strong presumptive evidence that they had much to do with the lesions. From this primary group the other groups became secondarily involved; and these also became old lesions before the final rapid spread in the peritonæum and liver and the terminal staphylococcus infection determined the fatal issue.

In the same class with this belong a number of cases reported in the literature, under various titles, usually as combinations of pseudoleukæmia or lymphosarcoma and tuberculosis, sometimes as tuberculous lymphadenitis simulating pseudoleukæmia. They are cases presenting the symptom complex and post-mortem findings of Hodgkin's disease, tuberculosis being first demonstrated by the microscopic examination or by animal inoculation. Sternberg (32) has recently brought together the scattered literature of the subject in a critical review, and a part of what directly follows is based upon his article.

There is nothing characteristic in the gross appearance of the glands of such cases. They are large, firm and as a rule sharply outlined from the surrounding connective tissue. On the cut surface they vary in color from gray to yellow and often show small spots which present themselves to the naked eye as areas of necrosis or even of caseation. So far we are not able to say that such areas are positive evidence of tuberculosis or that their absence indicates that the disease is non-tuberculous. In the liver, spleen and other viscera there are found nodules resembling in every way those of ordinary pseudoleukæmia. Acute tuberculosis of some part of the body may be found as a terminal process.

The microscope does not of necessity reveal the tubercle. The connective tissue is moderately increased and there are likely to be found areas of necrosis or nests of large pale cells rich in protoplasm and bearing one or more deeply staining nuclei. True giant cells may be found, but the familiar picture of tuberculosis in its ordinary form is absent and it may be impossible by the microscope alone to determine that the disease is present.

In an earlier article Sternberg (31) has insisted upon the constant presence of a large cell of endothelial origin containing one to six nuclei, with abundant protoplasm and occasionally containing karyokinetic figures which stain deeply. They are not identical with the epithelioid cell, are not found in normal organs nor in glands the seat of pseudoleukæmic changes, and are considered characteristic and diagnostic of tuberculosis. Multinuclear cells were found in my examination of the lymphatic glands, the spleen, the liver and the lung, which possibly correspond to these cells; but they are not distinctive enough, nor is Sternberg's description of the histology and reactions of his cells characteristic enough to assign to them absolute diagnostic importance in the absence of demonstrable tubercle bacilli or histological tubercles. They correspond in a general way to cells of endothelial origin occurring in the course of chronic inflammation in various parts of the body, as described by other writers. Freiherr von Notthaft (13) describes endothelial proliferation, with the formation of cells containing up to ten nuclei, in what is otherwise a pure lymphosarcoma, metastases in the skin being free from such cells. He calls attention to similar findings by Langhans, Ribbert, Dreschfeld, and Boetcher.

Goldmann (17) has insisted that in glandular hyperplasias of indefinite histological character the presence of eosinophiles in any considerable number speaks against tuberculosis. In typical histological malignant lymphoma he found them to be very numerous. Kanter (20) pursuing the work of Goldmann, found that in tuberculous processes of similar microscopic appearance the number of eosinophiles varies greatly. Dietrich (10) concluded that eosinophiles are of value in excluding tuberculosis; while Fischer (12) and other observers reach an opposite conclusion.

According to Sternberg (32) the first case belonging to this group is reported by Wunderlich (*Arch. d. Heilkunde,* 1866). He found hyperplasia of many lymphatic glands, some of which had caseous areas, a spleen of twice the normal size and containing lymphoid nodules, two caseous nodules in the brain and several small yellow tubercles in the kidneys. Among the older cases is also probably that of a hard lymphosarcoma with giant cells reported by Langhans (*Virch. Arch.,* 54, p. 509).

Cases presented to the London Pathological Society by Murchison (24), Dickinson (9) and others probably belong here, but lack of completeness in the reports renders a decision at this late day arbitrary and valueless.

Delafield (8) describes a case of acute tuberculous lymphadenitis of almost universal distribution, simulating malignant lymphoma clinically, and refers to similar cases by Hilton Fagge and Pye Smith.

Askanazy (1) records a case of tuberculosis of the supraclavicular, bronchial and mesenteric glands, without involvement of the lungs or intestines, which gave the clinical picture of malignant lymphoma and was called pseudoleukæmia by Baumgarten at the autopsy. The description of the glands corresponds closely to those in the case here reported and only the microscopic examination discovered the presence of tuberculosis by demonstrating the bacillus. The case was considered one of combination of the two diseases.

Waetzoldt (37) made a clinical diagnosis of pseudoleukæmia in a case which showed at the post-mortem examination enlargement of the lymph glands and spleen and pin-head-sized white nodules scattered diffusely throughout the lungs. The retroperitoneal, mesenteric, mediastinal and bronchial glands were large, firm and discreet and did not show areas of caseation. There were no old tuberculous lesions in the lungs or elsewhere. Microscopic examination revealed many tubercle bacilli in the lungs and mesenteric glands, but none in the glands surrounding the bronchi. There were no structures histologically recognizable as tubercle. The author inclined to the belief of double infection.

Brauneck (3) records a case in which the autopsy revealed a large group of caseated glands pressing upon the common bile duct giving rise clinically to grave icterus. There was enlargement of the spleen with hyperplasia of its follicles; many small yellowish nodules were found under the capsule of the liver, and the retroperitoneal, supraclavicular and cervical glands were caseated without enlargement. He considered the case one of pseudoleukæmia. Sternberg (32) believes that the deduction is not warranted and that the changes were of a tuberculous nature, which seems by far the more probable explanation.

A case presenting great enlargement of the submaxillary, supraclavicular, axillary, and inguinal glands was diagnosed clinically as pseudoleukæmia by Brentano and Tangl (4). There was no clinical evidence of tuberculosis in the lungs or elsewhere. Late in life a bronchial catarrh developed, but the sputum did not contain tubercle bacilli. At the autopsy there were found areas of healed tuberculosis at the apices without enlargement of the bronchial glands The enlarged glands of other regions showed no gross or histological evidence of tubercle, and search for the bacilli was negative. Nevertheless, guinea-pigs inoculated with pieces of the glands died of typical inoculation tuberculosis and the authors do not hesitate to conclude that such was the original nature of the disease.

Reinert (27) speaks of a case of widely distributed lymphoma of the neck, mediastinum, and mesentery with lymphoid nodules in the lung and liver and hypertrophy of the spleen. The anatomico-pathological diagnosis by Baumgarten was pseudoleukæmia. Tubercle bacilli were found in all the glands searched and these were considered the original cause and explanation.

Here also belongs a case of Weisshaupt's (38). The autopsy diagnosis was pseudoleukæmia, while the microscope revealed a rare form of lymph gland tuberculosis without caseation but with areas of coagulation necrosis. He says that such a form of necrosis speaks in favor of tuberculosis against other forms of glandular hyperplasia and that the diagnosis of pseudoleukæmia is to be considered absolute only when tuberculosis is carefully excluded by microscopic examination. In an examination of twelve cases from spirit preparations he found no areas of necrosis and no tubercle bacilli.

A case of tuberculous disease of the cervical, axillary, inguinal, and abdominal lymph glands resembling Hodgkin's disease is referred to by Bramwell (2) in his recent work on *Anæmia.*

Courmont, Tixier, and Bonnet (6) have recently furnished a detailed report with experimental investigation of a case of generalized lymphatic tuberculosis corresponding accurately to the clinical type of Hodgkin's disease. They have given also a valuable consideration of the general pathology and pathological relations of lymph gland tuberculosis.

Sternberg (31) examined eighteen cases that appeared clinically and anatomically as pseudoleukæmia and found fifteen of them to be tuberculosis. He concluded that the greater number of all cases diagnosticated as Hodgkin's disease would be proved to be tuberculous lymphadenitis if properly analyzed.

Troje (34), Cordua (5), Ricker (29), Dietrich (10), Fischer (12), Jacusiel (19), Freundweiler (14), and Czerny (7) have recorded cases which belong to this class and which show the various characteristic findings in a more or less typical way.

Cases have been now and then observed showing the symptoms complex and anatomical findings of typical pseudoleukæmia to which is added recurring periods of fever varying in duration from eight to fifteen days. Sternberg (32) believes that the majority of these are of tuberculous origin, though other causes are to be assigned to some of them. Ebstein (11) first called attention to the condition in 1887, and cases are reported by Pel (25, 26), Klein (21), Völkers (36), Renvers (28), Hanser (16), and others.

Concerning the explanation of the facts in such cases as have been noted in the foregoing, the different authors have held varied and somewhat contradictory opinions. Some, while admitting the existence of a tuberculous infection, have been inclined to look upon it as an entirely secondary and complicating condition and in no way concerned in the primary ætiology. Such a conclusion is reached by Askanazy (1), Wetzhold (37), Fischer (12), Troje (34), Claus (ref. by Courmont), Cordua (5) and Lichtheim (22).

A certain number of cases must no doubt be so explained. The adverse influence of any wasting disease, lessening the power of resistance to infection, may allow of the development of tuberculosis where it would otherwise not appear; and there could be no greater fallacy than to conclude that wherever the tubercle bacillus is found it is the cause of all the clinical and anatomical phenomena presented.

In a recent contribution Gilbert and Weil (15) insist upon the frequency of secondary tuberculous infection of glands the seat of malignant processes. They report a case of lymphosarcoma developing in the inguinal and abdominal glands of a patient affected by an old tuberculous pleurisy. An excised gland did not show the microscopic changes characteristic of tuberculosis, but when introduced into guinea-pigs gave rise to typical inoculation tuberculosis of rather slow development. They take issue with the conclusions of Brentano and Tangl (4), Ricker (29), and others and insist that such cases as show lymphosarcoma histologically, even though containing demonstrable tubercle bacilli, are secondarily infected.

Most of the authors look upon the organism in such cases as the primary ætiological factor and the disease as a tuberculous lymphadenitis simulating pseudoleukæmia, pointing out the necessity of animal inoculation in the establishment of a diagnosis. But, while maintaining that the tubercle bacillus is the cause of the greater number of cases of so-called Hodgkin's disease, Sternberg (31, 32) draws a sharp line of distinction between the two conditions. Dietrich (10) shares his opinion in part and Ricker (29) goes so far as to attribute the development of a true lymphosarcoma to the presence of a previous tuberculous infection.

Courmont, Tixier, and Bonnet (6) insist that such cases constitute a special form of pseudoleukæmia—a disease giving rise to a somewhat definite group of clinical and anatomical phenomena, but assignable to different causes. Sabrazés (quoted by Courmont, Tixier, and Bonnet) and Delbet (*ibid.*) also isolate a tuberculous type of the disease and the infectious origin of Hodgkin's disease is strongly maintained by Bard (*ibid.*). Cadiac (*ibid.*) calls attention to a similar disease occurring in the horse, dog, cat and cow, and says that it is not a special malady but a syndrome produced by various infectious agents, foremost among which is the tubercle bacillus.

Other authors have explained certain cases of Hodgkin's disease as due to definite organisms. Verdelli (quoted by Stengel, *Twentieth Century Practice,* 1896, vii, 446) found bacteriological research positive in twenty-nine cases. Majocci and Piccini (*ibid.*) demonstrated bacilli and streptococci; Klein (*ibid.*) found micrococci; Mafucci (*ibid.*) streptococci; Roux and Lannois (*ibid.*) found a variety of *Staphylococcus pyogenes aureus* which produced glandular swelling in inoculated animals. Delbet (*ibid.*) cultivated a bacillus from the spleen which produced glandular swellings when introduced into animals, and one from the glands of a woman which produced emaciation and enlargement of the glands in a dog. The same organism was recovered in culture and was thought to be the cause of the disease.

Murray (23), writing for Allbutt's *System of Medicine,* says: "When we consider the many points of analogy between Hodgkin's disease and tuberculosis and the other infective processes, it seems very probable that Hodgkin's disease is also due to infection. The changes which we find in the lymph glands are most easily explained by assuming that they are the result of some pathological parasite."

Strümpell (33) says that it is lately shown that Hodgkin's disease belongs to the class of infectious diseases and that many cases seem to go back to tuberculosis —to be purely tuberculous lymphadenitis without infection of other parts, but adds: "It is still questionable if this accounts for all cases of pseudoleukæmia," thus at least giving recognition to the question.

Since the histology of pseudoleukæmic glands in the ordinary form is practically that of small-round-celled sarcoma it is well to add here a recent statement in *Progressive Medicine* (18).

"It may be said that malignant tumors, especially those now classed as sarcoma, very probably include peculiar proliferative processes caused by organisms whose exact nature has not yet been determined. The near future will undoubtedly witness the definite separation from the sarcomas of various distinct infectious growths, and it would not be surprising if in the end a large number of sarcomas were to resolve themselves into processes of parasitic origin. As is frequently remarked, sarcoma in its clinical and anatomical characteristics presents more and more marked analogies to chronic granulomatous processes than carcinoma. This is especially true of small-celled forms."

So far investigation does not warrant us in concluding that all pseudoleukæmias are even probably tuberculous in origin, but it is at least established that tuberculous lymphadenitis may give rise to the symptom complex and anatomical findings which furnish thus far the only basis for the recognition of that disease as a distinct entity.

Already enough fairly typical examples have been presented to prove that it is not an altogether infrequent condition; and in the more complete analysis of future investigation it will in all probability be shown to be more frequent than at present indicated.

The great number of names which have been applied to the condition here designated as pseudoleukæmia, based upon the somewhat varied clinical course as well as a limited variation in the gross and minute pathological changes, and the greatly differing interpretation of those changes by different observers, are evidence of the heterogenity of the class to which the name refers. The ætiology is for the most part admittedly unknown; it is also admittedly various. Symptom complex determines the disease as the disease is now understood. Why, then, exclude those cases in which the tubercle bacillus is known to be the cause? A case of known origin is not to be singled out and classed as a different disease, but as an ætiological subdivision of the heterogeneous class.

A tuberculous lymphadenitis developing in the guise of pseudoleukæmia is, so far as the significance of our present nomenclature goes, a tuberculous pseudoleukæmia. So much the more is this term applicable since the histology of such a tuberculosis is frequently only that of ordinary lymphoma, inoculation of susceptible animals often furnishing the only evidence upon which correct diagnosis is possible.

I am indebted to Professor Senn for the privilege of using the case herewith presented, to Professor Hektoen for advice and counsel in the preparation of this report, and to Mr. M. M. Portis for the drawings.

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100 STATE STREET.

To Remove Blood from the Hands.—The *Medical Fortnightly* for September 10th directs that when there is blood on the hands, they should be first washed in pure water. The use of soap at first is a mistake, for soapy water does not dissolve blood rapidly. Clear water and a nail-brush should come first, soap next.

A REPORT OF THREE CASES OF

ASCENDING URINARY INFECTION DUE TO THE BACILLUS PYOCYANEUS AND THE PROTEUS VULGARIS.

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The relationship of the bacillus pyocyaneus to a whole series of pathological processes has been so abundantly demonstrated that any new report can apparently promise but little unusual in what was only a short time ago an untrodden field of clinical bacteriology. Little by little we have become accustomed to appreciate the occasional causal relation of this organism to certain types of purulent otitis media, urinary infection, cutaneous lesions, pneumonia, diarrhœa in infants, dysentery, general bacillæmia, and other processes.*

And yet, notwithstanding the wide range of disease processes with which this organism has been associated, no mention can be found relating to the "maladie pyocyanique" in its ascending urinary form. Nor has the occasional association of *Proteus vulgaris* with the *Bacillus pyocyaneus* been noted in cases of urinary infection.

The three cases here reported illustrate this association, and were observed during the course of routine postmortem studies made in the last two years. For the clinical histories we are indebted to the staff of St. Peter's Hospital, Albany, N. Y., and Roosevelt Hospital, New York City.

Case I.—James D., aged forty-six, white, a laborer, was admitted to St. Peter's Hospital in the service of Dr. Henry Hun, complaining of severe pain across the back in the lumbar region. The family and personal history were negative except that patient admitted the use of alcohol.

The present illness apparently dated from his working at cutting ice, which he had been doing for ten days before admission. After being in the hospital for five weeks he began to complain of pains in the limbs accompanied by numbness and weakness. He was unable to move his legs, nor could he stand without assistance. His bowels were constipated and urine was passed frequently in small amounts. On one occasion he had partial retention and had to be catheterized. At this time there were no disturbances of sensibility and the reflexes were exaggerated. Five weeks later he had complete anæsthesia and analgesia of both legs, complete loss of motion and of knee jerks. He gradually became weaker, developed a sacral bedsore and cough, and died four months after admission. He had no diarrhœa. He usually showed a slight evening rise of temperature.

The autopsy was made twelve hours after death. The following notes are abstracted from the protocol:

Anatomical Diagnosis.—Œdema and congestion of both lungs. Acute bronchitis. Sloughs of the back and buttocks. Œdema of the glans penis. Fatty liver. Cloudy swelling of the kidneys. Dilatation and thickening of the left ureter. Hydro-ureter on the right side. Concentric hypertrophy of the bladder with cystitis. Slight fatty atheroma of the aorta and coronaries. Slight swelling of Peyer's patches and the solitary follicles. Tuberculosis of both apices with cavity formation on the left side. Tuberculosis of the right adrenal gland (caseous). Brown atrophy of the heart.

Body 172 ctm. long. Sparely built; extremely emaciated man. Rigor mortis entirely absent in upper and lower extremities. No subcutaneous œdema. Pupils dilated and equal. Mucous membranes pale. Postmortem lividity of the dependent parts. Over the sacrum is a large loss of substance, measuring 11 by 14 ctm., extending through the subcutaneous tissue to the bone beneath. The margins are sharply defined and undermined in places. The base is fairly clean. Over the right trochanter is an irregularly oval loss of substance of similar character which measures 7x6 ctm. The trochanter projects through the wound. The glans penis is œdematous and the mucous membrane excoriated. Over the outer and posterior aspect of the left leg about its lower third is another ulcerative loss of substance 5 by 3 ctm. The edges are undermined and the base covered with foul-smelling, yellowish pus. Over the left trochanter is a large oval loss of substance which extends deeply into the muscular tissue. It measures 9 by 8 ctm. A portion of the tendon of one of the muscles projects. The subcutaneous fat is practically absent. Muscles of the thorax and abdomen are very much atrophied and pale.

The serous cavities showed no subserous hæmorrhages. The heart showed atheroma of the coronaries and slight thickening of the tricuspid and mitral valve leaflets. There was healed tuberculosis of the right lung and a slight caseous tuberculosis at the apex of the left lung. The spleen showed no marked change. The left adrenal was transformed into a caseous mass. The lymphatic apparatus of the ileum was slightly swollen. The stomach showed slight congestion of the mucosa. The brain and cord showed no gross lesions. There was no compression of the cord.

The following are the notes on the kidneys, ureters and bladder:

Left Kidney.—The fatty capsule is almost absent. The fibrous capsule strips off easily. The surface is smooth. On section, the cortex is perhaps somewhat diminished in places. The cortex markings are distinct. The glomeruli are visible and congested. The medulla shows no changes.

Left Ureter.—It is considerably increased in size. Its walls are markedly thickened, the average thickness being 3 mm. The mucous surface is also thickened and roughened. The color is mottled; in places it is of a distinct yellow, elsewhere of a brownish or gray color. Here and there small discrete pin-point- to pin-head-sized areas of hæmorrhage are apparent. The lumen is patent throughout.

Right Kidney.—It is somewhat smaller than its fellow. The cortex is more regular than on the opposite side, but the other appearances are the same.

Right Ureter.—The ureter of this side is distended with urine. The walls are not particularly increased in thickness. The mucous membrane is apparently smooth. The lumen is free.

Bladder.—This is very much diminished in size. The

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*Lartigau. The Bacillus Pyocyaneus as a Pathogenic Factor in Human Pathology, with the Report of Three Cases, *Philadelphia Medical Journal*, September 17, 1898. A contribution to the Study of the Pathogenesis of the Bacillus Pyocyaneus, with special reference to its Relation to an Epidemic of Dysentery, *Journal of Experimental Medicine*, 1898, No. 6.

walls are increased in thickness, the average thickness being 1.5 ctm. The mucous membrane is also thickened, being thrown into folds, and projecting from the folds are frequent yellowish streaks and areas—possibly they may be necrotic mucous membrane. The mucous membrane is injected in places and here and there shows pinhead discrete and diffuse submucous hæmorrhages.

The microscopical examination of the organs other than the lung showed nothing more than the gross appearances indicated. There was no evidence of myelitis in the sections of the cord. The kidneys showed merely cloudy swelling, with an occasional small patch of connective tissue formation.

The bladder and right ureter show the appearances of an acute inflammation superadded to a chronic one. In the submucosa there is considerable connective-tissue new formation, whilst overlying this is an acute process which has destroyed the mucosa completely. This acute process is in the form of a superficial zone of complete necrosis, beneath which is a zone of polynuclear leucocytes and necrotic material. In the latter zone sections stained with eosin and methylene blue show a fair number of micro-organisms. These are all bacilli, some of them very short and plump, others longer and slender.

Bacterioscopic.—Cover-slips from the bladder and ureter contained in addition to débris, polymorphonuclear leucocytes and epithelial cells, a moderate number of thin bacilli of moderate length and easily decolorizable by Gram's method.

Bacteriological.—Cultures were taken from the heart's blood, lung, liver, spleen, kidney, left ureter, bladder, and one slough of the back. The cultures from the blood of the heart and spleen, and liver and lung, contained an organism morphologically similar and culturally resembling the bacilli coli communes.

From the slough from the back, kidney, left ureter, and bladder a common organism was obtained which consisted of a slim, moderately long bacillus which did not take Gram's stain, and on *agar* grew as a profuse, moist, slightly elevated, grayish or pink growth which in from twenty-four hours to five days elaborated a fluorescent green pigment which became diffused throughout the medium. On *potato* the growth was also profuse, elevated and of a yellowish-brown color. The potato was changed in color to a rusty brown, sometimes to a greenish-yellow color. *Litmus milk* was acidified and coagulated, as well as peptonized. In *sugar media* the growth was present along the line of inoculation, but there were no evidences of any gas formation. In *Dunham* and *bouillon* the growth produced uniform turbidity of the medium in twenty-four hours; subsequent deposition of a flocculent deposit and also in some cases a film was present on the surface of the media. No discoloration of the bouillon or Dunham was observed.

Gelatin Stab.—There was a growth along the inoculation tract with beginning liquefaction at the end of forty-eight hours. Liquefaction at first as a funnel-shaped depression, which gradually spread irregularly throughout the medium. In time the liquefied gelatin became colored of a faint greenish tinge. On *blood serum* cultures grew profusely; at the end of two or three days slightly colored the medium of a greenish color and at the end of four or five days the blood serum showed signs of irregular liquefaction.

This organism as recovered from the kidney on agar cultures did not produce green discoloration of the medium until after a number of transplantations. It at first produced a pink pigment, which became more or less diffused through the agar; later the green pigment was developed. This pink pigment producing bacillus in other respects was identical in its behavior on media to the above description.

Hanging drop preparations from eighteen- to twenty-six-hour-old cultures contain bacilli of active motility.

The indol reaction was obtained in cultures in Dunham's solution at the end of five days or more.

In morphology this organism was subject to considerable variations dependent on the media on which it was grown. On potato larger and longer forms were observed than in the cover-slips from agar cultures. Similarly, in the bouillon growths involution forms were detected.

Animal Experimentation.—1 c. ctm. of a thirty-six-hour-old bouillon culture introduced intravenously into a full-grown rabbit produced somnolence for two or three days, but nothing further. 6 c. ctm. inoculated subcutaneously into a medium-sized rabbit produced an abscess at the point of inoculation. 1 c. ctm. inoculated subcutaneously into a guinea-pig did not harm it.

Bacillus pyocyaneus (Gessard).

The *Bacillus pyocyaneus* was obtained in pure culture from the slough from the back, but in the bladder, left ureter and kidney it was associated with another organism somewhat similar morphologically, but which exhibited a well-marked tendency in cultures to polymorphism. The plates showed this organism to be less abundant of the two and on media it grew as follows:

Agar Slant.—A profuse, moist, thick, opaque, dirty white growth, and the agar in time became of a brownish-yellow color. The odor was somewhat fæcal in character.

Potato.—A profuse, moist, thick growth; characteristic trimethylamin odor.

Blood Serum.—Growth similar in its general characteristics to that on the agar slant.

Gelatin.—Rapid growth along the line of inoculation with commencing liquefaction at the end of twenty-four hours. In five days the liquefaction was almost entirely completed.

Dunham and Bouillon.—The cloudiness is diffuse in twenty-four hours. Indol reaction in Dunham's solutions in a four-day-old culture.

Litmus Milk.—Rapid acidification and coagulation of the medium.

Sugar Media.—Growth along the inoculation tract and abundant gas production.

The organism is actively motile in twenty-four-hour bouillon cultures.

Tinctorially the organism takes all the aniline dyes well and stains evenly and deeply, but does not stain with Gram's method.

Animal Experimentation.—2½ c. ctm. of a bouillon culture inoculated intravenously into a full-grown rabbit caused the death of the animal.

Proteus vulgaris (Hauser).

Bacteriological Diagnosis.—Pyocyaneus infection of back (sloughs); ascending pyocyaneus and *Proteus vulgaris* infection of the genito-urinary tract; invasion of the heart's blood, lung, liver, and spleen with the *Bacillus coli communis*.

CASE II.—Mrs. V., aged fifty-two, St. Peter's Hospital. Service of Dr. Van Rensselaer. We were unable to obtain any clinical history of this case. The autopsy was performed eighteen hours after death. The following notes are abstracted from the protocol:

Anatomical Diagnosis.—Stone in the bladder (phosphatic). Diphtheritic cystitis. Ascending urinary infection. Diphtheritic ureteritis and pyelitis. Double pyonephrosis. Ascending infection of the kidneys with multiple miliary abscesses. Chronic adhesive pleurisy (double). Chronic adhesive perihepatitis and perisplenitis. Chronic passive congestion of the liver. Multiple myomata of the uterus. Cystic ovary. Marked calcareous atheroma of the lower portion of the aorta and of two main branches of the coronary artery. Fresh bronchopneumonia.

Body 145 ctm. long; slightly built; emaciated. Rigor mortis in the jaw and lower extremities. Slight post-mortem lividity. Surface pale. No subcutaneous œdema. Over both shins, extensive pigmented brownish cicatrices. Pupils midwide and equal. Mucous membranes very pale. Subcutaneous fat small in amount. Muscles reddish-brown in color.

Peritoneal Cavity.—Dry. Both layers of the peritonæum smooth and glistening. *Omentum* delicate and free from adhesions. *Appendix* lies across the psoas muscle; length 5.5 ctm. mesentery to tip. Foramen of Winslow closed by firm adhesions. *Diaphragm* on right side, fourth rib; left side, fifth rib. *Costal cartilages* not ossified.

The internal organs, apart from the urinary system, show no marked changes aside from coronary artery disease and slight chronic passive congestion of the liver.

The following is the description of the bladder, ureters, and kidneys:

Bladder.—Much contracted. Walls thickened. The mucous membrane has a green, almost gangrenous-looking appearance, and is dotted here and there with patches of grayish-green adherent false membrane. On the right side the lower ureteral opening is patent. The ureter is patent throughout its length, dilated to three times its normal size, and shows similar membranous inflammation to that seen in the bladder. The left ureteral opening also is patent.

There are present in the bladder, almost filling its cavity, two firm calculi. They are in form almost coin-shaped, being irregularly circular and flattened. Their diameter is 3 ctm. Their thickness is 1.25 ctm. One surface of each stone is smooth and polished, evidently from contact with each other; the other surface is somewhat irregular. They have the appearance of phosphatic stones.

Kidneys.—The fatty capsule is moderate in amount. The fibrous capsule strips off fairly easily, leaving an irregular pale surface. On section, merely the shell of the organ is left. The cortex is much diminished and pale; indistinct markings; barely visible glomeruli. The medulla is much compressed. The pelvis is dilated and contains foul-smelling greenish-brown purulent material and friable fragments of stone. The mucous membrane of the pelvis shows similar diphtheritic inflammation to that seen in the bladder and ureter. On the left side the process is even more marked, the ureter is more markedly dilated and more markedly inflamed. It and the kidney pelvis are filled with a grumous greenish-red material and covered by a densely adherent exudate. The kidney on this side is not so markedly compressed, the pelvis being not so much dilated, but presents about the same appearance as its fellow. There are present in both kidneys numerous miliary abscesses.

Only the microscopical changes found in the kidney, ureter, and bladder were of interest. They were as follows:

Kidney.—The capsule of the organ is not present in the section. The subcortical zone is diminished, glomeruli being present almost at the extreme cortex. The connective tissue of the organ is increased in places, there being patches of firm, fibrous connective tissue which have compressed tubules and glomeruli. A few fibroid glomeruli are seen. Scattered throughout the kidney substance and apparently quite frequently following a definite tract from the pelvis toward the cortex, are areas of dense cellular infiltration. In these areas the topography of the organ is often almost obliterated, the tubules and glomeruli being seen but indistinctly. The cells which cause the infiltrations seem to lie both in and between the tubules. They are present in such quantities that they have compressed the lining cells of the tubules so that they are in many instances almost flat. The vast majority of these infiltrated cells are small cells with irregular dark staining nuclei, *i. e.,* typical polynuclear leucocytes. In the portions of the kidney not infiltrated by these cells the parenchyma cells show very marked swelling and are extremely granular. The glomeruli outside of the affected areas are, as a rule, fairly normal-looking, though in a few of them the walls of the glomeruli capillaries are thickened and have a refractive appearance taking a sharp eosin stain. There are a number of hyaline casts to be made out in the tubules. Some of the medium-sized blood vessels show a moderate degree of thickening of the intima.

Ureter.—The ureteral mucous membrane is absent in many places, the mucous surface of the ureter being covered with false membrane made up of desquamated epithelial cells, multinuclears and cellular detritus. The inner lining of the ureter is made up of a layer of granulation tissue which is becoming organized. It is not very cellular, the cells present being small, round cells or elongated cells of an epithelioid type, with large numbers of blood vessels running between them. There is an increase in the connective tissue between the muscular coat, particularly that portion of it adjacent to the mucous membrane. The wall of the *bladder* shows an absence on the mucous surface of the lining epithelium. The surface is covered in places with an exudate made up of polynuclears and cellular detritus; beneath this the wall is made up of an organized granulation tissue similar to that described in the ureter with here and there patches of fresh granulation tissue made up of small round cells.

Sections stained with eosin and methylene blue showed enormous numbers of bacteria. Most of these were very short bacilli or long, slim bacilli, the latter occurring in dense, fetted masses. There were also present, however, a fair number of cocci in chains which did not decolorize by Gram, and which were presumably streptococci.

Bacterioscopic.—Cover-slips from the membrane from the bladder showed a variety of organisms; the predominating ones were very short bacilli, medium-sized and occurring in groups. There were also long, slim bacilli and short, fat bacilli. Cover-slips from the broncho-pneumonic area from the lung showed many pus cells, lens-shaped diplococci, which in places seem encapsulated, and very short bacilli.

Bacteriological.—Cultures from the lung showed two kinds of colonies: (1) rather large, opaque, round, white colonies, which showed in cover-slips short, fat bacilli, and (2) minute, translucent colonies in the depths which showed fine bacilli in cover-slips. The same two organisms were isolated from the spleen, the ureter and the bladder. The cultures from the liver were negative. The short, fat bacillus described above gave typical colon reactions. The fine, thin bacillus grew well on all media. It produced a thick, white growth upon agar with a brownish-green discoloration of the media; liquefied gelatin; peptonized litmus milk, producing an upper clear layer and a firm coagulum beneath; grew on potato as a thick brownish-green coat; clouded Dunham's solution evenly and produced indol. In the hanging drop the organism was actively motile. It was identified as the *Bacillus pyocyaneus*. From the bladder and ureter there was also isolated a bacillus which showed a certain amount of polymorphism. At times it appeared as a long, slim bacillus; at other times as a shorter, fat organism. This organism gave all the reactions of the *Proteus vulgaris*. It produced a strong trimethylamine odor in potato cultures; fermented sugars; liquefied gelatin; gave marked indol reaction, and in plates the cultures showed the typical "swarming islands."

Animal Inoculation.—A rabbit received intravenously a half c. ctm. of the bouillon culture of the pyocyaneus isolated from this case, but was still alive after a week.

CASE III.—Nellie G., unmarried, aged twenty-two years, colored, American, was admitted to the Roosevelt Hospital on December 6, 1899, service of Dr. Delafield, in a delirious condition. The family history proved negative. The personal history was too indefinite to show anything other than alcoholism and possibly lues.

Present Illness.—The history of the present trouble dates back two weeks, when the patient was acutely taken ill with diarrhœa with bloody dejections and considerable abdominal tenderness, more or less general in its distribution. This was accompanied by some fever. The patient remained in this condition for about six or seven days without any evident change. Then there gradually developed cough accompanied with moderate expectoration. For the last three days there was considerable bleeding from the nose and gums. Moreover, during this period many "wine-colored spots" appeared in the skin of the trunk and extremities. During the last twenty-four hours the patient has been delirious and has vomited considerable blood and bile-stained material. No evidences of pregnancy or abortion were observed by the ambulance physician at the time of her removal to the hospital.

When seen, the temperature was 105.6° F. and the respiration 40 a minute. The patient was a woman in poor nutrition, with coated tongue and equally dilated pupils. The gums were bleeding when examined. The pulse was very rapid, regular and feeble, and the artery was somewhat thickened. The abdomen was distended and tympanitic. No gurgles. Scattered over the surface of the body were noted multiple subcutaneous hæmorrhages varying in size from those involving an area of the diameter of a small pea to those measuring fully 3 ctm. Petechiæ were also observed between these larger hæmorrhages. Although present on the trunk and extremities, the larger hæmorrhagic spots were most abundant on the skin of the chest and buttocks and the smaller ones over the extremities. There was some jaundice. The spleen was palpable. The patient was moribund when admitted to the hospital, consequently no further physical examination was made.

She died while entering the ward at 12.10 p. m., December 6, 1899. The autopsy was performed four hours later. The following is an abstract from the autopsy protocol:

Anatomical Diagnosis.—Hæmorrhagic septicæmia; sub-involution of the uterus with placental retention; multiple focal abscesses in both lungs; mucopurulent bronchitis; hæmothorax on both sides; acute splenic tumor; ascending urinary infection on right side; hæmorrhagic cystitis, chronic hyperplastic ureteritis, pyelonephrosis; hæmorrhagic gastro-enterocolitis; brown atrophy of the heart muscle; hydropericardium; cloudy swelling of the liver; multiple hæmorrhages into the cerebral meninges.

The body was 141 ctm. long, moderately well built and fairly well nourished. Slight rigor mortis was present in both extremities. Some post-mortem lividity was noticed in the dependent parts. The pupils were mid-wide and equal. The body was moderately jaundiced. A fine petechial rash was marked over the whole body, but particularly noticeable on the anterior surfaces of the upper and lower extremities as well as on the abdomen. Large subcutaneous hæmorrhages were present on the chest and buttocks, the largest over the right trochanter, measuring 4 by 3½ ctm. There was no apparent superficial glandular enlargement. The muscles of the abdomen and thorax were pale red-brown in color.

The peritoneal cavity contained no excess of fluid; both layers were bile-stained and smooth. The foramen of Winslow was patent. Diaphragm, sixth rib on the left side, fifth rib on the left in the mammary lines. The liver was somewhat displaced downward. The omental glands were not enlarged. The pericardium, like all the serous membranes, was bile-stained. Abundant pinhead-sized hæmorrhages were scattered over both surfaces. The heart presented no evident deviations from the normal; the myocardium was firm and of a dark red-brown color. Each pleural cavity contained about 300 cubic centimetres of fluid and clotted blood. Discrete and confluent subpleural hæmorrhages were very abundant. Both lungs were free from adhesions, crepitant, congested. The lower lobe on each side was somewhat œdematous. Distributed over each lung were some two dozen or more discrete abscesses, measuring from ½ to 2 ctm., and containing thin, grayish material, free from odor. These areas of softening, for the most part, were not sharply defined, with irregular margins and having no apparent relation to the bronchi. The bronchi contained a moderate amount of mucopus; their mucous membrane was studded with minute hæmorrhages. The pulmonary blood vessels were normal.

The spleen was swollen to fully three times its normal size; consistence very soft; pulp increased; Malpighian bodies very prominent. The liver and kidneys showed cloudy swelling. The pancreas, aorta, and both adrenals were normal. The tongue and tonsils were also normal-looking. The mucous membrane of the œsophagus was congested in its lower half and throughout contained multiple discrete pin-point- to pinhead-sized hæmorrhages. The stomach showed congestion of the mucous lining, patches of mucous-membrane atrophy, and everywhere hæmorrhages similar to those seen in the œsophagus. The duodenum was markedly congested, bile-stained, and the mucosa riddled with hæmorrhages of larger size than those seen in the œsophagus and stomach. The remaining parts of the intestine to the transverse colon presented a similar appearance to that in the duodenum. No ulceration was observed in the intestinal mucosa in any part.

The uterus was soft and measured 14 by 9 by 5 ctm. The musculature appeared normal. A small portion of placental tissue was adherent to the fundus. The endometrium was extremely congested and covered with mucus. The vagina, tubes, and ovaries were normal.

The bladder contained about 50 c. ctm. of cloudy urine (microscopically showing many pus cells, a few red blood cells, and hyaline and granular casts). The mucous membrane was actively congested, particularly at the base, and contained numerous petechial hæmorrhages. The ureter on the right side was adherent all the way up to the adjoining structures by old, fibrous tissue; its walls were considerably and quite uniformly thickened, having an average thickness of half a centimetre. The lumen was patent and the mucous membrane thickened, congested, and covered with thin pus. The kidney pelvis was dilated, the dilatation involving the medullary calices. For the most part, the mucosa was congested, the pelvis being filled with greenish pus. The ureter of the opposite kidney was normal.

The brain showed considerable engorgement of its blood vessels, but beyond this nothing was noted of an abnormal nature. Numerous petechial hæmorrhages were present in the meninges.

Microscopical examination of the heart, liver, spleen, pancreas, adrenals, aorta, uterus and its appendages, œsophagus, stomach, intestine, bladder, meninges, and brain added nothing further of importance to the naked-eye findings. Sections of the lung, including the areas of purulent softening, showed the alveoli in the immediate vicinity of the abscess focus to be filled with polynuclear leucocytes, a few desquamated epithelial cells, and, occasionally, a small amount of fibrin. The wall of the abscesses was made up of consolidated and partly broken-down alveoli in which a greater or less quantity of necrotic material and other débris was discernible. Histological study of the right ureter showed that the thickening was for the most part due to new connective tissue formation, involving the submucosa and the tissue from this outward. The mucosa and underlying tissues were additionally infiltrated with multinuclear leucocytes. Here and there the mucous membrane was absent in small areas less than ½ ctm. in diameter. In short, the lesion was that of chronic hyperplasia. The corresponding kidney presented the characteristic picture of pyelonephrosis and pyelonephritis.

Sections of tissue from the lungs, spleen, kidneys, bladder, ureter (right), liver, intestine, and uterus stained for bacteria showed microorganisms. The uterine mucosa taken from the fundus contained moderate numbers of moderately large cocci having a chain arrangement of five to eight members. They could be followed in the blood sinuses. They were stained by Gram's method. Cocci morphologically similar were found in the sections from the lungs (abscesses), spleen, and kidney. The specimens from the liver and intestine contained short and rather thick bacilli which lost their stain with Gram. The mucous membrane of the bladder and ureter was riddled with thin and thick bacilli, the former somewhat long, whilst the thick ones were generally short. Both lost their stain by Gram's method. Similar bacilli were present in small numbers throughout the entire thickness of the right ureter.

Agar plates and cultures on blood serum were made from the heart's blood, lung, lung abscesses, spleen, liver, gall-bladder, both kidneys, both ureters, urinary bladder, uterus, vagina, and intestines. At the end of forty-eight hours pure growths of a coccus similar to that met with in the uterus were obtained in the plates and blood serum tubes from the heart's blood, lung, lung abscesses, spleen, left kidney, uterus, and vagina. The tinctorial and cultural behavior of this organism was characteristic of the *Streptococcus pyogenes.* From the liver an organism corresponding to the colon bacillus was isolated in the plates and on serum. The plates and cultures prepared from the large and small intestine contained the bacillus coli communis, bacillus lactis aerogenes and a few colonies of the *Proteus vulgaris* (Hauser). Nothing was grown from the left ureter and the gall-bladder (ten days' incubation at 37° C.).

From the urinary bladder, right ureter and pelvis of the right kidney abundant growths were obtained. From each of these three situations two types of organisms were isolated, both decolorized by Gram's method and different in morphology. The predominating growth was made up of slender, actively motile bacilli of moderate length, which agreed in its tinctorial and cultural characters with the bacillus pyocyaneus as noted in detail in the above cases. The other organism exhibited pleomorphic tendencies; usually it was a short, thick bacillus; at other times long and slender, or again long and thick. This organism was identified as the *Bacillus proteus vulgaris* (Hauser). It agreed with the features enumerated in the previous cases.

Animal Experimentation.—One-half a cubic centimetre of a twenty-four-hour bouillon culture of the *Streptococcus pyogenes* isolated from the heart's blood was injected intravenously into a full-grown rabbit (2,160 grammes). The rabbit was found dead fifty hours later. At the autopsy the lungs were congested, the spleen was swollen, and the liver and kidneys were cloudy. The inoculated coccus was recovered from the blood and viscera. One cubic centimetre of the same culture, subcutaneously inoculated in a rabbit (1,721 grammes), produced death in three days and a half with the same lesions as observed in the intravenously inoculated rabbit. Moreover, there was a small abscess at seat of inoculation. The streptococcus was recovered from the viscera.

One cubic centimetre of a twenty-four-hour culture of the *Bacillus pyocyaneus* (from the ureter), intravenously inoculated into a rabbit (1,811 grammes), produced death in seven days. The spleen was somewhat enlarged, but no other lesions were observed. *Bacillus pyocyaneus* was recovered from the spleen and liver only. Two c. ctm. of the same culture, subcutaneously inoculated into another rabbit (1,165 grammes), produced no untoward effects.

The *Bacillus proteus vulgaris,* obtained from the ureter, was injected subcutaneously (5 c. ctm. of a forty-eight-hour bouillon culture) into a rabbit (1,432 grammes) without producing any harmful effects. One cubic centimetre of the same culture, intravenously inoculated into a rabbit (991 grammes), produced stupor in the animal and diarrhœa for a couple of days, but it fully recovered.

Bacteriological Diagnosis.—Streptococcus infection of the vagina, uterus, heart's blood, lung, spleen, liver, and left kidney. *Bacillus coli communis* in the liver. *Proteus vulgaris* and *Bacillus pyocyaneus* in the urinary bladder, right ureter, and pelvis of the right kidney.

Remarks.—From a clinical standpoint Case I presents features of great interest on account of its resemblance to the case of Jadkewitsch.* His case is one of unusual interest in this connection.

The patient had at the time of observation a chronic eczema of both legs which had lasted ten years. This was complicated three times by ulceration, the purulent secretion being blue, and at these times the patient manifested certain peculiar nervous symptoms. The first time the blue suppuration lasted for three months. At the end of this period there gradually developed paresis and anæsthesia of the whole right arm, which disappeared under electrical treatment. Five years later the blue suppuration returned and lasted three weeks, following which

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*Baumgarten's *Jahresbericht,* 1890, p. 355.

there occurred a period of weakness and emaciation, with dyspnœa and rapidity of pulse (140), lasting four months, when recovery took place. Three years later the blue suppuration once more returned and lasted, with intermissions, about four months. Accompanying this there occurred diarrhœa, slight increase in temperature (38° C.), a pulse of 120, paresis of both legs, and disturbance of sensibility, which spread gradually to the skin of the scrotum, the penis, the gluteal region, and the anal region; the lips and tongue were also anæsthetic. In this stage of the disease Jadkewitsch isolated from the urine the *Bacillus pyocyaneus.*

In Case I, as in that just cited, the main symptoms were referable to the nervous system, the most important of these being partial paraplegia and exaggerated reflexes succeeded by complete paraplegia, loss of reflexes, anæsthesia, and analgesia. It will be noticed that no cord lesion was present to account for such a condition. The subsequent development of a bedsore and its infection with the *Bacillus pyocyaneus* is of interest in connection with the point of origin of this infection. Whilst conceding the possibility of its skin origin, it would seem more likely that it became infected by the urine from the urinary lesion, and such a belief is supported by the fact that the infection occurred a considerable time after the first clinical manifestations. Furthermore, the postmortem showed the urinary lesions to be of long standing.

Case II is a simple case of ascending urinary infection following stone in the bladder.

Case III presents clinically the features of a hæmorrhagic septicæmia, probably incidental to the puerperal streptococcus infection.

From an anatomical standpoint it may be said that in contradistinction to some other forms of pyocyaneus infection the ascending urinary form produces no specific picture. The urinary lesions were merely inflammatory hyperplastic processes.

One of the most striking things noticed was the relative non-virulence of the *Bacillus pyocyaneus* isolated in these cases. This was probably due to the fact that the process in all these cases was essentially a chronic one. It has been our experience that in the usual pyocyaneus infections, which are acute, it is rare to find non-virulent forms of the organism.

MEMBRANOUS ENTERITIS.*

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MEMBRANOUS enteritis is a rare, non-febrile, and usually persistent morbid condition of the intestinal mucous membrane, characterized by irregular paroxysms of abdominal pain, tenderness, tenesmus, and the passage of shreds, tubes, and membranes, of mucus, and occasionally of exact casts of the bowels.

Membranous enteritis has been regarded as a distinct disease only during the past eighty years. According to Wales, mention of it may be found in medical literature as far back as the second century. Paulus Ægineta, who flourished about the middle of the seventh century, speaks of it. Fernelius, in 1554, recognized the true nature of the membranes.

Powell, in 1818, and Da Costa, in 1871, established the true nature of the disease. Dr. Field, in 1888, collected all the reported cases of membranous enteritis, one hundred and sixteen in number, eighty per cent. of which were in women, and as a rule they were of nervous temperament and middle age. Only six fatal cases are reported.

It is most common between the ages of thirty and forty years. It has been observed in children (Chapin, Smith, Edwards, and Da Costa).

The attacks recur periodically in typical cases, and consist of nervous and digestive disturbances followed by a discharge of mucus and membranes from the intestines.

The most characteristic symptoms are derangements of the digestive organs varying in degree from mild indigestion to a high grade of intensity, with vomiting and diarrhœa or obstinate constipation. A general abdominal tenderness nearly always exists, with an indescribable sense of distress, a soreness or rawness, at times nausea and again tenesmus and dyspeptic annoyance of one sort or another. Intestinal colic often precedes the evacuations, and disappears after free purgation, but may recur. It is frequently localized in the left side of the abdomen, along the course of the colon. Palpation is painful during the crisis. Apart from the paroxysms, the bowels are usually constipated; they are rarely regular. The matter expelled from the bowels consists principally of mucus and membrane. Sometimes they appear in strings, shreds, flat masses, tubes, or a perfect cast of the bowels.

The membrane is thin, smooth, and soft, of a yellow color. After floating in water and being freed from foreign matter, it assumes a dirty white color. When removed from the water, it presents the appearance of a structureless, transparent jelly like the white of an egg or soft glue. In one of my cases a perfect tube ten inches in length was observed.

Chemically, the membrane consists of mucin and an albuminous substance insoluble to a great extent in water. Ninety-per-cent. alcohol causes it to shrivel; strong acids and alkaline solutions of moderate strength dissolve the cast.

Microscopically, the exudate is made up of opaque white amorphous matter, forming a delicate membrane, here and there indistinctly fibrillated, due to mucus, and having imbedded epithelial cells, crystals, round cells, pigments, various kinds of micro-organisms, and particles of undigested food.

The causes of membranous enteritis are varied and obscure. The attacks frequently follow emotional disturbances, overwork, or errors in diet, and recur at irregular intervals, lasting from a day to three or four weeks.

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*Read before the Montgomery County (Pa.) Medical Society.

The influence of age is striking; the disease is rarely seen in childhood or in persons over fifty years of age. Heredity is not an ætiological factor. Sex exerts a marked influence. In an analysis of a hundred cases, four only were found to have occurred in males (Wales). Da Costa attributes the ætiology to "the nerves presiding over nutrition and secretion." Wales regards the "ganglionic nerves of the intestine to be primarily at fault." Grantham asserts that the use of mercury, with a too frequent use of aperient agents, is the cause of the disease. W. H. Thomson is of the opinion that direct mechanical irritation of the rectum, as by horseback or bicycle riding, or pressure on the rectum by uterine fibroids or the prolonged retention of hardened scybala, habitual constipation, gives rise to it. According to Henschen, it has been found to depend on the presence of larvæ in the intestinal canal; this view is supported by no other authority. Functional disturbance of the liver has been regarded as a cause. Other causes assigned are supersecretion of mucus in women of a neuro-arthritic type, ovarian disease, and painful menstruation. Occupation, climate, race, and inheritance cannot be regarded as ætiological conditions. Dr. Albert Mathieu, of Paris, states that a secretional irritation of the mucous membrane exists. The disease only shows itself in its full intensity in persons predisposed by previous neuropathic tendency. Dr. Boas, of Berlin, says that the clinical history is exactly parallel to that of habitual constipation. Simpson described it as analogous to certain chronic eruptions on the skin, as a chronic eruptive inflammation of the intestinal mucous membrane.

All this is mere conjecture, for no pathological evidence of inflammation has been found.

Case I.—Mrs. H., thirty years of age, a woman of nervous temperament, the mother of two children, and a hard worker, presented a good history and had enjoyed good health. In 1885 she began to suffer from constipation alternating with diarrhœa. She noticed in the stools long, stringy masses, which she took to be tape-worm, and stated that she had taken worm medicine, but she was getting no better.

She presented the following symptoms: Sick stomach, with increased salivary secretions that obliged her to be constantly spitting; the tongue coated, appetite irregular, paroxysmal pains in the abdomen, which she described as something gnawing or moving; constipation, followed by diarrhœa, which gave some relief.

No fever was present and but little gastric disturbance. I examined her stool and found abundant membrane that she had passed during one of her paroxysms of pain and diarrhœa. The masses varied in size from a quarter of an inch to an inch and a half wide, and from an inch to four inches long.

They were flat, thin, tough, and yellow-white. She has been under my observation for fifteen years, and during that time she has had attacks at irregular periods varying in point of time from a week to four months. I have prescribed alteratives, nervines, tonics, intestinal antiseptics, and general supporting measures. At present her health is good; she is well nourished and strong, but continues to have occasional attacks of colic and discharges membrane.

Case II.—Miss W., thirty-five years old, healthy, robust, and well nourished, but nervous and emotional. She had been subject to attacks of indigestion and chronic constipation. In 1886 she suffered from congestion of the liver and subacute gastritis, from which she made an excellent recovery. In March, 1887, she had a mild attack of peritonitis. In April, 1888, her menstrual function became deranged, the flow being frequent and copious, lasting four days, and there were obstinate constipation and vomiting more or less every day for four weeks. These alarming symptoms gradually subsided, so that she was comparatively comfortable, but weak and nervous. During July and August vomiting returned from time to time, with pain in the abdomen and pain in the spine, which was sensitive to pressure. The tongue was coated, the bowels were constipated, the pulse was 90, weak and irregular, and the temperature was 99° F.

In February, 1889, she was confined to her bed, with spinal congestion, intense headache, insomnia, slight fever, and thirst, with vomiting continuing for eight weeks, menstruating every two or three weeks, with the expulsion of membrane from the uterine cavity, of its exact size and shape. Examination of the uterus revealed endometritis with ulceration of the cervix. This condition soon improved under treatment.

Her general health remained impaired during the summer, with the appetite poor, the heart weak, headache, and sleeplessness with frequent vomiting. In June she suffered from distressing colicky pains, with soreness of the abdomen, incessant vomiting of watery mucus, headache and vertigo, palpitation of the heart, and dyspnœa, and was obstinately constipated, passing small quantities of urine. Her temperature was 99° F. On the fifth day we succeeded in moving her bowels. She suffered great abdominal distress, tenesmus, and pain during defæcation. The stools consisted of mucus and a large quantity of membranes and tubes; there was no blood.

The severity of the symptoms abated, but the attack continued for six weeks, during which time the stools contained more or less membrane, and occasionally membrane was expelled from the uterus during menstruation. In December she had a slight attack of muscular rheumatism of two weeks' duration. In January, 1890, an attack of influenza supervened, with severe abdominal pains, tenesmus on defæcation, and copious membrane in the stools. In June a paroxysm of unusual intensity occurred, during which a chloasmic spot developed on the right thigh, three inches below the trochanter, five inches in extent. This spot subsequently reappeared at each attack.

On July 28th she had a mild paroxysm. On November 15th there was an attack of severe type. Her pulse was 66, and her temperature 99° F.

The subsequent history of the case, for a period of nine years, was that of a return of the paroxysm at irregular intervals, and of variable degrees of intensity, until 1894, when she passed from my direct observation. In 1899 she died, after a short illness, from peritonitis.

During the ten years that she was under my care, almost every conceivable plan of treatment was resorted to, chief among them being the use of arsenic, iron, bismuth subnitrate, sodium benzoate, nitrate of silver, mineral acids, opium and morphine for the pain, castor oil, and saline cathartics. The best results were obtained from small doses of calomel with enemata of warm linseed oil, repeated until the bowels were unloaded of membrane and mucus, with a thirtieth of a grain of strychnine every three hours, after which a general tonic treatment was employed. Remedies made but little impression on the course of the disease, further than abating the intense suffering during the paroxysms.

Case III.—Miss K., aged forty years, a housekeeper, had good health until 1894, when she reported having had gastric ulcer, from which she recovered after a long illness. In 1895 she was treated for tape-worm, but without relief, after which she became jaundiced, with pain in the liver, and vomited blood.

She was again treated for gastric ulcer in 1896, when she had jaundice and was greatly reduced in weight and strength. In 1897 she came under my observation. She was emaciated, weak, nervous, and slightly jaundiced. Her liver was enlarged and tender; she was sick at the stomach, had no appetite, and had attacks of vomiting associated with soreness of the abdomen and colic. Her tongue was coated; she had no fever, but a feeble and quick pulse. The bowels were constipated, and when they moved it was attended with pain and tenesmus. The stools contained mucus and membrane. During the preceding three years she had been dyspeptic, with more or less pain in the abdomen, at intervals of from one to three months the constipation becoming more marked, with sick stomach, and intensified jaundice and colic, followed by diarrhœa, the stool loaded with mucus and membrane. The climax was reached by an exaggeration of all the symptoms, and she passed over the high point of a paroxysmal wave, only to relapse into her former miserable state of health.

The treatment of this malady must be directed, first, to the relief of pain and the removal of the membrane when found; and, second, to correcting the condition that produces the membrane. During the acute stage the pain must be relieved with opium, morphine, chloroform, or belladonna. Enemata of large quantities of water or linseed oil, with the addition of castor oil or sulphate of magnesium, will afford relief by moving the bowels and thus dislodging the membrane.

Between the paroxysms, the mode of life must be carefully regulated and the diet selected and adapted to the patient's weak digestion. With regard to medicine, I have seen the best results from a course of iron with arsenic and strychnine. Nitrate of silver is sometimes of service. Small and frequently repeated doses of castor oil are soothing to the patient and effectual in preventing constipation.

Faradaism in Renal Colic.—Dr. Carl D. S. Früh, of Philadelphia (*Medical Record,* August 11th), relates the case of a man aged forty-eight years, who was taken severely ill on June 22, 1900, with pains in the left kidney. He gave a history of three previous attacks in which the pains were so bad that he went into convulsions. The regulation treatment with morphine and atropine failed to give more than momentary relief. He was then placed on his side with the sore kidney up, the hip and legs elevated, and a faradaic current, with interruptions of from sixty to eighty per minute, was applied to the front and back of the organ. One half hour of this gentle tapping of the kidney eased the pain completely. The patient passed water freely and was entirely relieved by this treatment.

A RÉSUMÉ OF SOME PAPERS PRESENTED TO THE THIRTEENTH INTERNATIONAL CONGRESS OF THE MEDICAL SCIENCES.

(*Continued from page 459.*)

The following papers are abstracted from the *Comptes rendus* furnished by the *Agence centrale de la presse scientifique internationale.*

Section of Pathology.

The Spleen and its Infections.—M. de Dominicis, of Naples, gave the results of some of his experiments which showed that by injecting into the spleen of dogs virulent or sterile cultures, rapidly fatal phenomena analogous to those of potassium cyanide poisoning were developed in the animals. The experiments were made with cultures of Eberth's bacillus and of the colon bacillus, the dose being from eight to twelve cubic millimetres.

Section of Bacteriology.

Nervous Troubles of Malarial Origin.—M. Boinet, of Marseilles, said that the initial troubles were those of sensation, paresis, etc. Later, motor troubles appeared, and trophic troubles resembling those of beri-beri. Troubles of the sphincters had not been observed. Exceptionally, hemiplegia might be seen. Pseudo laminated scleroses might also be observed, but they belonged to the hysteria provoked by paludism, which was so frequently to be seen. Paludism might give rise to psychic troubles recalling alcoholism with tremors, delirium, hallucinations, and melancholia, which as a rule were curable.

Section of Medicine.

Indications for Venesection.—M. Georges Hayem, of Paris, said that a given method of treatment was indicated when the fact was established that it promised, under given circumstances, a greater measure of relief than any other. Venesection, then, could only be considered as indicated in cases in which its action was incontestably superior to that of other therapeutic measures. The employment of repeated bleedings, the so-called antiphlogistic method of olden times, appeared to be finally condemned. The opening of a vein, practised once, or several times at sufficiently distant intervals, deserved, on the other hand, to be retained as a useful, even if heroic, measure. The cases in which bleeding was indicated were, speaking generally, those in which life was in immediate danger through either circulatory or toxæmic troubles. The principal conditions in which the indication existed were as follows: Acute œdema of the lungs, especially in diseases of the greater vessels and of the kidneys; certain cases of pneumonia of the œdematous variety, or simply congestive; certain mechanical troubles of the circulation in disease of the heart or great vessels, especially in cases of arterial hyperdistention, but also occasionally where asystolia existed; congestive and hæmorrhagic forms of acute nephritis; cerebral congestion and hæmorrhage at its commencement, in those whose arteries were in a state of high tension; acute or recent uræmia; puerperal eclampsia; blood poisoning by certain gases, notably by carbonic oxide. In all other pathologic conditions the indications for bleeding were matters for dispute. This was notably the case in chlorosis. The indications for bleeding were established empirically by the observation of facts. In this relation, classic writings of real value were very few in number.

Statistics were of hardly any service, for it was almost impossible to classify properly conditions often transitory, or which had disappeared. The so-called physiologic effects of bloodletting could give only a very imperfect idea of its therapeutic effects. These latter were based essentially upon peculiar conditions originated by the disease, and seemed to be in a great measure due, on the one hand, to the mechanical effect of the abrupt abstraction of a quantity of blood, and on the other to the removal of a poison. Clinical facts observed with precision proved that the therapeutic effects were of great power. The resistance of man and the higher animals to the abstraction of blood was considerable in all cases in which there did not exist a pathologic cause resulting in decrease of the blood corpuscles, or an obstacle to the renovation of the blood. Save at the extremes of age, a bleeding of some magnitude, say from three hundred to five hundred cubic centimetres (some ten to seventeen ounces) was always well borne in the morbid conditions before mentioned, even though the patients were sensibly anæmic, as was often the case in uræmia and puerperal eclampsia. The restoration of the blood was brought about in the sick, as in the normal condition, by means of the hæmatoblasts. The elements of the bone marrow had no part in it. These elements did not pass into the general circulation, save in the case of repeated losses of blood.

Section of Genito-urinary Surgery.

The Treatment of Strictures of the Urethra by Electrolysis.—M. J. A. Fort, of Paris, referred to the conclusions of the communication presented in his name to the Academy of Medicine in 1888 by Professor Richet, under the title of A New Procedure for Curing Strictures of the Urethra Rapidly and without Danger. These conclusions were: (1) linear electrolysis is not painful; (2) it is rapid; (3) it is unaccompanied by loss of blood; (4) it does not necessitate any stay in bed; (5) it does not need the retention of a sound; (6) there are never any consecutive accidents; (7) return of the trouble is rare. M. Fort said that during the twelve years that have elapsed since then he had constantly used this method of treatment in stricture. After these twelve years of practice he still maintained the foregoing conclusions, basing his opinion upon one hundred and forty observations. He wished now to add an eighth conclusion, viz.: A feeble current of ten milliampères for a period of from twenty to thirty seconds sufficed in most cases to perform the operation. In view of the results obtained by linear electrolysis, M. Fort rejected internal urethrotomy because of its dangers, in the treatment of urethral strictures. M. Fort concluded as follows: "I affirm on my honor that my observations are authentic and that my operations have never been followed by any accidents. Nevertheless M. Delagénière, M. Albarran, and M. Nogués affirm that they have operated in this way and have observed grave accidents, such as phlegmon of the penis, infiltration of urine, etc. The following dilemma confronts us: Either my observations are not authentic, or these gentlemen have not operated under good conditions. Where lies the truth? I beg the president to oblige me by naming a commission before which I undertake to operate in a certain number of cases. That is the only honorable and correct means to dispel all doubts and to light up the subject."

Foreign Bodies in the Urethra of the Male.—M. Casamayor de Planta, of Mauléon, reported the case of a man sixty-four years of age who had passed a wooden tube into the urethra, to simulate erection; a piece of fine thread was attached to the tube to facilitate its withdrawal after use. One day he was unable to withdraw it, and felt the tube penetrate farther into the canal, while the thread disappeared. On examining the patient four days later, M. Casamayor de Planta found the tube in the urethra at the level of the perinæum, the thread reaching nearly to the meatus, which was much dilated and lacerated by the improper manœuvres and traction made by the patient in his efforts to withdraw it. The penis was enormously swollen and the prepuce œdematous. On seizing the thread with a forceps and pulling on it, the author caused considerable pain but effected no dislodgment of the tube. Before attempting an operation he took a glass cannula for vaginal injections, twelve millimetres (about four-tenths of an inch) in diameter and removed the returned end. He then attached with great difficulty a stylet to the thread, and passed the cannula over it, insinuating it gently into the urethra by the aid of vaseline. When the end of the cannula came in contact with the end of the wooden tube, he pulled on the thread and removed the cannula and tube *en masse,* without either pain or great difficulty. The tube was one centimetre (about one-third of an inch) in diameter, and eight-and-one-half centimetres (nearly three inches) in length, the thread being nine centimetres (three inches). A second case recorded by the author was that of a young man, seventeen years of age, who had introduced a piece of pencil into the urethra. This object was perceptible about eight centimetres (two inches and two-thirds) from the meatus. Remembering his prior experience, the author took a long threaded mattress needle, and, guiding it with great care by means of a small piece of catheter previously introduced into the meatus, stuck the needle-point into the end of the pencil, which he held from the outside with his left hand firmly in the canal. Traction, however, caused severe pain. He then passed the thread through a glass cannula eight millimetres (about two inches and two-thirds) in diameter, which he introduced into the urethra, presumably having first removed the guiding piece of catheter. When the cannula arrived in contact with the pencil he was enabled to withdraw the whole without pain. The pencil was nine centimetres (three inches) in length and seven millimetres (somewhat less than a quarter of an inch) in diameter.

Section of Surgery.

Oblique Subtrochanteric Osteotomy for Ankylosis of the Hip in a Vicious Position in a Man Twenty-eight Years of Age. Cure.—M. Louis Mencière, of Rheims, said that, apart from the result obtained, which, as the photographs showed, was excellent, it was interesting to follow the course of this operation in a subject twenty-eight years old; most of the observations recorded either in Paris or in the provinces, have reference to children or adolescents from fifteen to twenty years. The patient presented a shortening of forty-three centimetres (about fourteen and one-third inches) with firm right-angled ankylosis. The left limb rested on the extremity of the foot; the thigh was flexed at a right angle upon the abdomen, and the pelvis, thrust backwards, showed an enormous saddle-shaped deformity. The patient seemed "broken in two," to use his own expression. The photograph taken after the operation showed him erect; the thigh was straight, and the saddleback was gone. The shortening had decreased from forty-three centimetres to five centimetres and a half (just under two inches), which a special shoe sufficed to rectify. The author advised in delicate osteotomies, calling, however, for considerable effort, the use of a square wooden mallet similar to that used by sculptors. With this instrument one could strike without fear of slips. It was preferable to the leaden mallet, and to that of Macewen. In oblique subtrochanteric osteotomy, which was certainly a more delicate operation than simple transverse osteotomy, an extensive revivified bony surface was obtained, very favorable to the formation of a solid callus. The medullary canal was freely opened, it was true, but this was of small account if the intervention was conducted according to the rules of asepsis. The author insisted upon the necessity of beginning massage and electrotherapy immediately on the removal of Hennequin's traction apparatus. That was the only means of rapidly extending to the patient the full benefit of the operation.

Therapeutical Notes.

A Mixture for Tympanites in Infants.—The *Gazette hebdomadaire de médecine et de chirurgie* for August 12th credits Freyberger with the following formula:

℞ Sodium sulphocarbolate	4 to 8 grains;
Syrup of bitter-orange peel	75 minims;
Peppermint water	7 drachms.

M.

Three coffeespoonfuls daily for two days.

Pills for Ovarian Neuralgia.—Martin (*Gazette hebdomadaire de médecine et de chirurgie,* August 12th) gives the following formula:

℞ Extract of belladonna	3½ grains;
Extract of stramonium	4½ "
Lactophenine	1½ drachm.

M.

Divide into twenty pills. Two or three to be taken daily.

The Care of the Skin in Acne.—Dr. E. Lacour (*Nord médical,* August 15th) says that, night and morning, the skin should be bathed with very hot water (to reduce the congestion) to which creolin, or a few drops of the following solution, should be added:

℞ Corrosive sublimate	7½ grains;
Tincture of benzoin	75 grains;
Emulsion of bitter almonds	3675 grains.

M.

A Stimulant for Pneumonia in the Aged.—Professor Lemoine (*Nord médical,* August 15th) gives the following:

℞ Ammonium acetate	30, 60 or 90 grains;
Syrup of gooseberries	750 grains;
Mint water	750 grains.

M.

This amount to be taken in divided doses in twenty-four hours.

For Rhachitism.—*Province médicale* for August 11th cites from the *Journal des praticiens* the following: Systematic exercise, consisting of active and passive gymnastic movements, should be practised, to stimulate general nutrition and assist the circulation about the joints. Massage is very useful in infants who are too young for the exercises; also friction with a hair glove steeped in the following liniment:

℞ Turpentine	300 grains;
Camphorated alcohol	750 grains;
Alcoholate of lavender	150 grains;
Eau de cologne	300 grains.

M.

The Treatment of Blennorrhagic Epididymitis.—Spiegelhauer (*Monatshefte für praktische Dermatologie,* Vol. 30, No. 8; *Journal de médecine de Paris,* August 12th) for two years has been treating blennorrhagic epididymitis with hot fomentations. He cuts off a piece of batiste, about fifteen centimetres wide and twenty long, and a similar piece of thick gauze dressing. A hole is made in one of the smaller sides of the rectangle for the passage of the penis. The gauze is impregnated with a hot ten-per-cent. solution of aluminum acetate. It is covered with the batiste and a suspensory bandage applied. The important point in fixing the suspensory is that the body straps should be drawn tight, because the scrotum is thus well supported, while the thigh straps have no function beyond preventing the suspensory from slipping. No special curative effect in epididymitis is attributed to the aluminum, but it prevents, or at least lessens, the maceration of the skin, which ordinarily happens very quickly with water alone. The fomentation is renewed thrice daily. This treatment affords rest, the raising of the scrotum and easing of the cord causing disappearance of the pain. The author also gives 45 grains of sodium salicylate daily to the subjects of epididymitis, even when fever has disappeared. Hot sitz baths are found beneficial. The author has not had a case of abscess out of twenty cases. The treatment is, he considers, in all respects better than the ice method.

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THE WATER SUPPLY OF THE CITY OF NEW YORK.

II.

IN further consideration of the Merchants' Association's *Inquiry into the Conditions relating to the Water Supply of the City of New York,* one aspect of which we laid before our readers last week, we come to the Engineering Committee's report on sources available for an adequate additional supply. Of these sources, the most economical, in the committee's judgment, and the only ones considered in detail, are the following: 1. Ten Mile and Housatonic rivers, a gravity supply; a part of the water to be filtered. 2. The Wallkill River, in Orange County; the water to be filtered and delivered by gravity. 3. The Hudson River above salt-water influence (*i. e.,* above Poughkeepsie); the water to be pumped, then filtered, and delivered by gravity. 4. Several streams in the Catskill Mountains; the water to be filtered and delivered by gravity. 5. The water of the northern part of the Hudson, to be filtered, and that of Schroon Lake, in the Adirondacks, in its natural condition; to be delivered by gravity.

It is unnecessary to enter upon any statement of the committee's presentation of the relative economical advantages of these various sources; we are concerned only with their hygienic features. Suffice it to say that the committee's preference is for the third source mentioned, the Hudson River above Poughkeepsie, where, although there may at times be traces of salt water at the bottom, the surface water is fresh and consists largely of water from the Adirondack region. It is polluted, as everybody knows, but nobody versed in modern hygiene needs to be told that filtration is sufficient to restore its purity. "The conditions which allow water to free itself, not only of turbidity, but of microscopic bacteria and pathogenic germs suspended therein," says the report, "are now fairly well known. Artificial filtration is, in fact, but an imitation of Nature's process, operating under the most favorable conditions, of converting surface water into spring water." The experience of various large cities of America and Europe as to the striking reduction of the mortality from water-borne diseases, notably typhoid fever, after the introduction of an efficient system of filtration, is mentioned in the report, and with good reason, for experience is more convincing than theoretical argument or experiments conducted on a small scale.

The committee's conclusion, or what appears to be their virtual conclusion, that the best plan is to tap the Hudson above Poughkeepsie, pump the water to the high ground in the neighborhood, filter it, and deliver it by an aqueduct to large distributing reservoirs near the upper limit of the city, seems to us to be based on sound reasons. Unless a better scheme can speedily be pointed out, we hope to see it adopted with as little delay as possible. One thing is certain, as is said in the report, and that is that our present supply, meaning that of all the boroughs, should be filtered.

A LEAGUE AGAINST SEASICKNESS.

THIS apparently is the age of leagues against certain diseases and of ultra-specialization in periodical literature. The latest example of these tendencies that has come to our notice is the *Journal du mal de mer,* which is the organ of a league against seasickness. There was held in Algiers some months ago a conference on seasickness, and an account of its proceedings, taken from the *Dépêche algérienne,* is given in the September number of the new journal. Besides this, there are several short articles on various aspects and bearings of seasickness, and there is a scheme of questions to be used in what may be termed a collective investigation of seasickness.

Substantially, the questions put in the circular, which appears to be intended for all sorts of people, are as follows: 1. Are you affected with seasickness? On deck? In the cabin? 2. What does your seasickness consist in? Simple nausea, vomiting, vertigo, or headache? Which of these are the most distressing to you? With what is your seasickness complicated? 3. Do you often make voyages? How many have you made? What voyages? How long ago did you make your first voyage? The duration of the voyage? What intervals have there been between your voyages? Names of the companies or vessels by which you have travelled? 4. In what class have you travelled? Were you forward, at the stern, or amidships? In what class and on what vessel have you been the sickest? Had you a cabin on deck? Have you travelled as a soldier in a great number? 5. Have you travelled on sailing vessels and on steamers? On what vessels were you most troubled with seasickness? 6. Are you seasick before leaving port? Are you sick when the sea is smooth? How long does the sickness last? Are you sick only at the beginning or during the whole voyage? 7. How does your seasickness begin? Is it when you go down to your cabin, when you go to the cabinet with its closed ports, or when moving in your berth? 8. Which is most apt to sicken you, the movements of the vessel or the confined air of the cabins, the rolling or pitching of the vessel? How do you struggle against the rolling, and how against the pitching? Are you sicker when the weather is warm than when it is cold? 9. What precautions do you take against seasickness? Do you take them days before sailing, on the day of sailing, or on board?

These questions will prove interesting to physicians in general as showing what points in the ætiology and clinical history of seasickness are considered by those who are specially engaged in elucidating the subject as calling for particular investigation. It is a theme on which the most curious and diverse views have been held, and it is to be hoped that the league will succeed in throwing much light on it. It is certainly worthy of more systematic study than has heretofore been given to it. We will go further and say we hope the league will eventually achieve the task of exterminating seasickness.

ADAPTATION IN THERAPEUTICS.

It can hardly be expected of any one man that he will make many wholly original advances in his methods of practice. Yet many men, indeed, all progressive, and we might even say all successful, practitioners introduce improvements that are to some extent original with them. They do it, not by new discoveries of their own, but by adapting to their own particular line of practice the novelties brought out by physicians pursuing some specialty in which the adapters are not engaged. It may be that the general practitioner is the one who oftenest brings about a tremendously important change in what may be called grand therapeutics, but doubtless it is the specialist who makes advances that are greater in number if they are less radical and conspicuous. The work of every skilled specialist, therefore, as it is set forth in society meetings or published in medical journals, is deserving of the notice of every member of the profession, for whoever does give attention to it can adapt some feature from it to the requirements of his own practice. Perhaps the ophthalmologist's special field of work is the one to which least attention is paid by physicians who are not of his specialty, and ophthalmological literature is but little read by them. Yet, if everybody had followed this negligent course, how would the extension of the use of cocaine to general surgery and to the other specialties have been impeded, and how would the present activity in experimenting with the suprarenal capsule as a therapeutic agent under diverse conditions have been delayed!

The physician who is given to proclaiming that he knows nothing about eyes, who pays no attention to articles on diseases of the eye, misses many an opportunity to adapt some ophthalmologist's new procedure to the diseases which he is in the habit of treating. And the same may be said of negligence of what is going on in other specialties. To succeed, a physician cannot afford to miss such opportunities, for if he does he will drop behind those in his own line of work who pursue a more watchful course. If he is a gynæcologist, for example, and pays no attention to some new detail in a rhinologist's or laryngologist's methods of topical treatment until he hears of its adaptation to gynæcology in a gynæcological society or reads of it for the first time in a gynæcological journal, it goes without saying that whoever mentions it at a meeting of such a society or in a printed article in such a journal has himself done the adapting, or at least has preceded the negligent man in turning it to account. The literature of all the specialties should be conned by every medical man—we do not mean the physics and the mathematics of ophthalmology, of course, but that part of it which may bring to his attention an adaptable idea.

GONORRHŒA AS A CURE FOR ALCOHOLISM.

A novel suggestion appears, according to the *Province médicale* for August 11th, to have emanated from the fertile brain of an English physician. This gentleman has noticed that the necessity for total abstinence during an attack of gonorrhœa was powerful enough to influence many men into the paths of sobriety, whom neither promises nor threats had availed to turn aside from the highway of alcoholism. From this consideration, he proposes to offer the victims of alcoholism the choice between incarceration in a special asylum and the induction of a gonorrhœa. The idea is ingenious and novel, but that is all. To carry it into execution, legal compulsion would be necessary; and if legal compulsion were attainable, it seems to us that the incarceration in public institutions would of itself suffice without the alternative.

HEALTH AND OCCUPATIONS FOR WOMEN.

An inquiry instituted by a St. Louis woman, of which a summary is given in the *Western Medical Review* for August 15th, seems to show that the increasing employment of women in commercial life is less injurious than it is commonly credited with being. Of 165 women admitted last year into one hospital, there were housewives, 95; women of leisure, 36; domestic servants, 14; teachers, 6; school girls, 4; nurses, 3; seamstresses and factory employees, 2 each; stenographers, 2; and one laundress. An institution specially devoted to nervous diseases showed a somewhat similar state of things. Of 82 patients, there were housewives, 46; women of leisure, 15; unmarried housekeepers, 7; domestic servants, 5; and not a single stenographer to represent the business woman. A healthy interest in the world of action seems to be beneficial rather than otherwise on this showing. The regular life and routine occupation for all the mental faculties, without the wear and tear of anxiety for results, which forms so large a part of the strain of men's occupation, is doubtless answerable for this condition of things.

SODIUM CACODYLATE IN CHOREA.

Arsenic, as is well known, is a serviceable remedy in various nervous affections. In the form of a cacodyl compound, it seems to be very efficacious in chorea. M. Garaud and M. Belbèze (*Loire médicale,* May 15th; *Archives de médecine des enfants,* September) have used it in three cases with excellent results. It was administered by the rectum. In one of the three cases it gave rise to temporary albuminuria.

A SINGLE UMBILICAL ARTERY.

The existence of but a single artery in the umbilical cord must be a rare anomaly. At a recent meeting of the Paris Anatomical Society (*Presse médicale,* September 1st) M. Mouchotte showed a fœtus which lacked the left artery, while the right one showed compensatory enlargement.

SALT WATER AND THE PLAGUE BACILLUS.

Sea-water seems to have little if any destructive action on the bacillus of the Oriental plague, if we may judge from certain experiments reported by M. Wurtz and M. Bourges at the recent Paris Congress of Hygiene and Demography (*Presse médicale,* September 1st). These gentlemen treated a bouillon culture with twenty times its bulk of sea-water, and on the thirty-ninth day they inoculated a mouse with a quarter of a cubic centimetre of the mixture. The mouse died in eighteen hours.

A USEFUL MANUAL FOR INEXPERIENCED WRITERS.

The Macmillan Company has recently issued a little book entitled *Notes for the Guidance of Authors,* compiled by Mr. William Stone Booth. Although not specially designed for medical writers, it would be of great service to such of them as are inexperienced in preparing printers' copy, correcting proofs, and the like. We do not concur in all that is said in it, but in the main we approve of it and regard it as an excellent manual.

THE NATIONAL VOLUNTEER EMERGENCY-SERVICE MEDICAL CORPS.

As the originator of this organization, Dr. J. Adelphi Gottlieb, well says, the recent appalling disaster in Texas emphasizes anew the necessity of such a corps. It should be spread over the entire country as quickly as possible, for nobody can tell where the next great horror is to have its scene.

A PROSPECT OF MORE WATER FOR THE BOROUGH OF THE BRONX.

We are glad to see it announced that at last that body of our municipal legislature in which the action necessary to provide a better water supply for the borough of the Bronx has been hanging fire so long has taken the requisite steps, and we trust that the work will be begun at once.

ITEMS.

Infectious Diseases in New York.—We are indebted to the Sanitary Bureau of the Health Department for the following statement of cases and deaths reported for the two weeks ending September 15, 1900:

Diseases.	Week end'g Sept. 8		Week end'g Sept. 15	
	Cases.	Deaths.	Cases.	Deaths.
Typhoid fever	88	27	116	28
Scarlet fever	37	22	45	3
Cerebro-spinal meningitis	0	4	0	6
Measles	38	3	26	5
Diphtheria	104	14	111	20
Laryngeal diphtheria (croup)	2	1	3	1
Phthisis	215	152	233	128
Small-pox	0	0	0	0

Marine-Hospital Service.—*Official List of the Changes of Station and Duties of Commissioned and Non-Commissioned Officers of the U. S. Marine-Hospital Service for the Seven Days ended September 13, 1900:*

Bailhache, Preston H., Surgeon. Granted leave of absence for nine days from September 14. September 8, 1900.

Irwin, Fairfax, Surgeon. To proceed to Boston Quarantine for special temporary duty. September 12, 1900.

McIntosh, W. P., Surgeon. To proceed to Biloxi and Ship Island for special temporary duty. September 10, 1900.

Kinyoun, J. J., Surgeon. To proceed to Victoria, Port Townsend and Astoria Quarantine for special temporary duty. September 7, 1900.

Wertenbaker, C. P., Passed Assistant Surgeon. To proceed to Galveston, Texas, for special temporary duty. September 10, 1900.

Brown, B. W., Passed Assistant Surgeon. Granted leave of absence for two months from November 1. September 13, 1900.

Anderson, J. F., Assistant Surgeon. To proceed to Liverpool, England, for special temporary duty. September 7, 1900.

Francis, Edward, Assistant Surgeon. Relieved from duty at New York, N. Y. (Stapleton), and directed to proceed to the Immigration Station and report to Surgeon L. L. Williams for duty. September 10, 1900.

Bahrenburg, L. P. H., Assistant Surgeon. Relieved from duty at the Immigration Station and directed to proceed to Liverpool, England, reporting to Assistant Surgeon J. F. Anderson at U. S. Consulate for duty. September 10, 1900.

Burford, R. E. L., Acting Assistant Surgeon. Granted leave of absence for one month from November 3. September 13, 1900.

Gomez, S., Acting Assistant Surgeon. Granted extension of leave of absence for ten days from September 19. September 11, 1900.

Moncure, J. A., Acting Assistant Surgeon. Directed to proceed to Brunswick Quarantine and assume temporary charge of station for thirty days from November 3. September 13, 1900.

Hume, Lea, Sanitary Inspector. To proceed to Galveston, Texas, and report to Surgeon Peckham for special temporary duty. September 13, 1900.

Richardson, S. W., Hospital Steward. Granted leave of absence for twenty days from October 1. September 11, 1900.

Allen, G. C., Hospital Steward. Relieved from duty at Delaware Breakwater and directed to proceed to Mullet Key Detention Camp and report to medical officer in command for duty and assignment to quarters. September 10, 1900.

Olsen, E. T., Hospital Steward. Relieved from duty at Mullet Key Detention Camp, and directed to proceed to Washington, D. C., and report to Bureau for duty. September 10, 1900.

Appointment.

McKay, Malcolm. Reinstated and appointed senior hospital steward. September 12, 1900.

Naval Intelligence.—*Official List of Changes in the Medical Corps of the United States Navy for the Week ending September 15, 1900:*

Crawford, C. A., Assistant Surgeon. Detached from the *Eagle* and ordered to the *Dixie*.

Gates, M. F., Surgeon. Detached from the Naval Hospital, Norfolk, Virginia, and ordered to the *Atlanta*.

High, W. E. G., Assistant Surgeon. Detached from the Naval Hospital, Yokohama, Japan, and ordered to the *Oregon*.

McCormick, A. M. D., Passed Assistant Surgeon. Ordered to the Naval Hospital, Norfolk, Virginia, for duty, when detached from the *Montgomery*.

Morris, L., Passed Assistant Surgeon. Detached from the *Baltimore* and ordered home to await orders.

Moscow Medical Congress Prize.—At the twelfth International Medical Congress at Moscow in 1897, the city established a prize of $1,000 to be conferred at each congress on the one who since the preceding congress had done medical work of the greatest benefit to humanity. The first award of the prize was to M. Henri Dunant, founder of the Red Cross Society. At the present congress the award has been made to Professor Ramon y Cajal for his researches on the minute structure of the nervous system.

Marine-Hospital Health Reports.—The following cases of small-pox, yellow fever, cholera and plague have been reported to the Surgeon General, U. S. Marine-Hospital Service, during the week ended September 15, 1900:

Small-pox—United States.

Nome, Alaska	Aug.	18	3 cases.	
Jefferson County, Col.	Aug.	28—Sept. 1	11 "	
Las Animas County	Aug.	28—Sept. 1	1 case.	
Wichita, Kansas	Sept.	1-8	1 "	
New Orleans, La.	Sept.	1-8	2 cases.	
Minneapolis, Minn.	Sept.	1-8	1 case.	
Winona, Minn.	Aug.	28—Sept. 4.	3 cases.	
Cleveland, Ohio	Sept.	1-8	2 "	
Dayton, Ohio	Sept.	1-8	1 case.	
Eagle Pass, Texas In Mexican portion of town.	Sept.	7	1 "	
Ogden, Utah	Aug.	1-31	2 cases.	
Salt Lake City, Utah	Sept.	1-8	1 case.	
Wheeling, West Virginia	Sept.	1-8	1 "	

Small-pox—Foreign.

Prague, Austria	Aug.	18-25	2 cases.	
Antwerp, Belgium	Aug.	18-25	1 case.	
Rio de Janeiro, Brazil	July	13-30	38 cases.	10 deaths.
Liverpool, England	Aug.	18-25	6 "	
London, England	Aug.	18-25	1 case.	
Bombay, India	Aug.	1-14		6 deaths.
Calcutta, India	Aug.	4-11		7 "
Karachi, India	Aug.	5-12	1 case.	1 death.
City of Mexico, Mexico	Aug.	26—Sept. 2.	4 cases.	5 deaths.
Moscow, Russia	Aug.	11-18	6 "	
Odessa, Russia	Aug.	18-25	1 case.	
St. Petersburg, Russia	Aug.	11-25	96 cases.	11 deaths.
Warsaw, Russia	Aug.	11-18		10 "
Zurich, Switzerland	Aug.	11-18		1 death.

Yellow Fever.

Rio de Janeiro, Brazil	July	13-20		10 deaths.
Barranquilla, Colombia	Aug.	19-26		1 death.
Panama, Colombia	Aug.	27—Sept. 1.	3 cases.	1 "
Cienfuegos, Cuba	Sept.	8	1 case.	
Havana, Cuba	Aug.	2-26	215 cases.	34 deaths.
	Aug.	26—Sept. 1.		23 "

Cholera.

Bombay, India	Aug.	1-14		693 "
Calcutta, India	Aug.	4-11		35 "

Plague.

Bombay, India	Aug.	1-14		105 "
Calcutta, India	Aug.	4-11		52 "
Cebu, Philippines	July	14-21	1 case.	
Manila, Philippines	July	14-21	4 cases.	
Constantinople, Turkey On ss. *Niger* from coast of Asia Minor.	Aug.	27	1 case.	

Army Intelligence.—*Official List of Changes in the Stations and Duties of Officers serving in the Medical Department, United States Army, from September 8 to September 15, 1900:*

Hoff, John Van R., Major and Surgeon, United States Army, will proceed to Nagasaki, Japan, on the mail steamer *Hongkong Maru.* Upon his arrival at Nagasaki, Major Hoff will report for transportation to Taku, China.

Phillips, John L., Captain and Assistant Surgeon, United States Army, is relieved from duty at Fort Columbus, N. Y., upon the arrival at that station of Corbusier, William H., Major and Surgeon, United States Army. He will then report to Fort Slocum, N. Y., for duty with recruits to sail on the transport *Buford* on or about November 9, and upon his arrival in Manila will report in person to the commanding general, Division of the Philippines, for duty.

Poindexter, Jefferson D., Captain and Assistant Surgeon, United States Army, will report in person to the senior member of the board appointed by Par. 19,

S. O. 295, December 20, 1899, W. D., upon the arrival of that board at Fort Reno, Oklahoma Territory, for the purpose of accompanying the command that may be detailed to make a practical test of the emergency ration.

A board of medical officers, to consist of Forwood, William H., Colonel and Assistant Surgeon-General, United States Army; Gibson, Robert J., Major and Surgeon, United States Army, is appointed to meet in San Francisco to examine into the present physical condition of Mobley, Grier P., Second Lieutenant, Forty-fifth Infantry.

Dr. I. N. Love, of St. Louis, editor of the *Medical Mirror,* announces that he will shortly remove from St. Louis to New York, where he is to hold the position of Professor of Medicine at the Post-graduate School of Medicine.

University Medical School Wrecked at Galveston.—The storm caused a loss of probably $70,000 to the buildings of the State University in Galveston, the medical branch of which was situated there. The Brackenridge Building, recently erected at a cost of $45,000, was wrecked, and the other buildings were greatly damaged. The session was to have opened on September 26. A meeting of the regents will be held and steps taken to accommodate the students. If it is found that they cannot be accommodated at Galveston they will probably get room in the main buildings of the university at Austin temporarily.

Physicians for Galveston Sufferers.—Dr. John Finney, of New Orleans, volunteered to organize a corps of physicians, and the first relief train out of Philadelphia carried not only food and clothing for the victims of the storm, but two physicians and eight trained nurses as well. They were Dr. Green R. Hulshizer, commander of the Philadelphia Medical Emergency Corps; Dr. E. P. Kennedy, of the Jefferson Hospital, and eight of the hospital's nurses. Dr. John V. Shoemaker, president of the Philadelphia Department of Charities and Correction and president of the Medico-Chirurgical Hospital, offered to the relief committee on behalf of these institutions twenty-five nurses, the Philadelphia Hospital to furnish fifteen and the Medico-Chirurgical Hospital ten. Dr. Francis Duncan was among the volunteers from Chicago who went to Galveston.

Harvard School of Comparative Medicine.—A tract of land covering 1,128,124 square feet was recently purchased in Boston for $564,412, for the Harvard School of Comparative Medicine. Nothing, however, will be done in the matter of new buildings until after the opening of the fall term at the University in October, when plans for a suitable structure will be invited. The school contemplates a union of the Harvard Medical and Harvard Veterinary schools.

"Pink-eye" Prevalent in New York City.—New York City is still suffering, according to hospital surgeons, from an epidemic of "pink-eye," or mucopurulent conjunctivitis. The epidemic is attributed to the public baths, and now that the season is over it is believed that its treatment will soon cease to keep the attendants at the various municipal eye and ear hospitals and infirmaries busy.

Changes of Address.—Dr. Allan Blair Bonar, to No. 146 West Ninety-fourth Street, New York; Dr. Thomas Stevenson, to No. 220 West One Hundred and Fifth Street, New York.

Society Meetings for the Coming Week:

Monday, *September 24th:* Medical Society of the County of New York; Lawrence, Massachusetts, Medical Club (private); Cambridge, Massachusetts, Society for Medical Improvement; Baltimore Medical Association.

Tuesday, *September 25th:* New York Dermatological Society (private); Metropolitan Medical Society, New York (private); Buffalo Academy of Medicine (Section in Obstetrics and Gynæcology); Richmond, Virginia, Academy of Medicine and Surgery; Rome, N. Y., Medical Society; Boston Society of Medical Sciences (private).

Wednesday, *September 26th:* New York Academy of Medicine (Section in Laryngology and Rhinology); New York Pathological Society; American Microscopical Society of the City of New York; Auburn, N. Y., City Medical Association; Berkshire, Massachusetts, District Medical Society (Pittsfield); Philadelphia County Medical Society.

Thursday, *September 27th:* New York Academy of Medicine (Section in Obstetrics and Gynæcology); New York Orthopædic Society; Brooklyn Pathological Society; Brooklyn Society for Neurology; Roxbury, Massachusetts, Society for Medical Improvement (private); Pathological Society of Philadelphia (conversational).

Friday, *September 28th:* New York Clinical Society (private); New York Society of German Physicians; Yorkville Medical Association, New York (private); Philadelphia Clinical Society; Philadelphia Laryngological Society.

Births, Marriages, and Deaths.

Born.

O'Hara.—In Buffalo, Illinois, on Thursday, August 30th, to Dr. and Mrs. Frederick S. O'Hara, a son.

Married.

Baer—McKinley.—In Somerset, Pennsylvania, on Wednesday, September 12th, Dr. Hermanus Ludwig Baer and Miss Mabel Anna McKinley.

Bates—Brown.—In Chicago, on Wednesday, August 29th, Dr. Morley de Costa Bates and Miss Edith Gray Brown.

Estopinal—Olivier.—In New Orleans, on Wednesday, September 12th, Dr. Joseph Alcibiades Estopinal and Miss Andrée Olivier.

Glover—Webber.—In Ann Arbor, Michigan, on Wednesday, August 29th, Dr. James W. Glover and Miss Alice D. Webber.

Murphy—Reisinger.—In Pensacola, Florida, on Monday, September 3d, Dr. Joseph A. Murphy, United States Navy, and Miss Julia L. Reisinger.

Place—Webster.—In Chicago, on Saturday, September 1st, Dr. Frederick E. Place and Miss Lillie Wagner Webster.

Twitchell—Pearce.—In Chicago, on Wednesday, September 5th, Dr. James Warren Twitchell, of Belleville, Illinois, and Miss Bertha Lemira Pearce.

Died.

Harrison.—In Millwood, Virginia, on Monday, September 10th, Dr. Benjamin Harrison, in the forty-first year of his age.

Obituaries.

HUNTER HOLMES McGUIRE, A. M., M. D., LL. D.

Dr. Hunter Holmes McGuire, one of the most distinguished of living surgeons in the South, died at his country home near Richmond, Va., on September 20th from the effects of a paralytic seizure which occurred some months since.

Dr. McGuire was born in Winchester, Va., in 1835, and graduated from the Winchester Medical College in 1855. When the Civil War broke out he enlisted as a private in the Confederate Army, and later was made medical director of "Stonewall" Jackson's forces. In May, 1863, when Jackson was mortally wounded, Dr. McGuire was relieved of his duties by order of General Lee that he might be constantly at the dying General's bedside.

After the war Dr. McGuire removed to Richmond, and was elected to fill the chair of surgery in the Medical College of Virginia. This position he held until 1878, when an extensive practice compelled him to resign. He established St. Luke's Home for the Sick in Richmond. In 1893 Dr. McGuire was elected president of the University College of Medicine. His abilities as a surgeon were recognized at home and abroad by the conferring upon him of many honorary degrees.

Dr. McGuire was elected a vice-president of the International Medical Congress held in 1876 and has also acted as vice-president of the American Medical Association. He was an associate fellow of the College of Physicians of Philadelphia and an honorary fellow of the D. Hayes Agnew Medical Society of Philadelphia and was a member of a large number of medical societies.

Pith of Current Literature.

The Quarterly Medical Journal for Yorkshire and the Adjoining Counties, August, 1900.

Hysteria in Youths and Boys. By Arthur Hall, M. A., M. B., M. R. C. P.—The author records a group of cases which he deems truly hysterical and in which the following features are common to all: 1. They occurred in boys or youths; 2. they were all diagnosticated at some period or other as cases of organic nervous disease; 3. they were all, sooner or later, discovered to be not organic nervous disease, but merely a simulation of it.

The cases were as follows: Three simulated cerebellar tumor; one simulated cerebral injury; one simulated meningitis; one simulated Jacksonian epilepsy; one simulated lightning stroke, and one consisted of mysterious aches and pains, with twitching of the legs and great difficulty in walking. The author concludes that hysteria is more common in boys than is generally thought and is not so readily recognized. The children are often bright and intelligent and are often spoiled pets of the family. An inquiry will often show that unhappiness in their surroundings, either at school or at their work, is the primary cause, and some slight illness or injury the immediate starting point. The diagnosis of their true condition is sometimes quite easy, sometimes very difficult. Even if simple it is often wiser to keep it to yourself, provided that you let the patient know that you know. If you tell the parents just what you think, they are not always grateful; it is not gratifying to hear that a child has been making a fool of you, or that it has a highly unstable nervous system. Lastly, the child that has done it once will do it again as soon as your back is turned, and this further result is usually displayed to you as convincing proof of the feebleness of your diagnosis. The author thinks the most striking difference between the hysterical boy and the hysterical girl is that the former does it much more purposely. The difference is partly due to the difference of surroundings. The boy has to live among boys and knows how his fellows would tease him for any "girlish" tricks, hence he dreads discovery and "plays the game" with greater thoroughness.

A Series of Surgical Cases. By R. J. Pye-Smith, F. R. C. S.

A Case of Dilated Stomach, Due to Pyloric Stricture, Relieved by Pyloroplasty. By Arthur Hall, M. A., M. B., M. R. C. P., and H. Lockwood, M. R. C. S.

Case of Abscess of the Brain Secondary to Middle-ear Disease. Operation, Recovery. By A. L. Mathieson, M. B., C. M.

The Climate of North China and the Conditions of Life there. By the Rev. Frank B. Turner.—The author's remarks apply to the region of North China lying between lat. 37° 30′ and 40° 30′, where he has resided for twelve years, and which is of especial interest to Europeans (and to Americans) at the present time. This tract of country lies between the Great Wall on the north and Chefoo and northern Shantung on the south, and includes the Taku, Tientsin and Peking districts.

To begin with the winter. In the early days of December, rarely later than the 10th, a hard frost sets in, and in a few days everything is frozen hard—ponds, brooks, canals and rivers, and even the sea itself for a mile or two from the shore, so that navigation with the ports in the Gulf of Pechili becomes entirely suspended. When once this frost has come, umbrellas and waterproofs may safely be put away, for the three following months the frost never breaks and snow or rain never falls. During the middle of the winter the cold becomes very intense, especially at night, but in the day time, in spite of the crispness and sharpness of the air, there is continuous brilliant sunshine and a clear sky. The only break in these conditions is when occasional strong winds from the north and northwest bring with them immense brown clouds of frozen dust from the Mongolian plains, and produce those dust storms for which North China is so well known. These are very disagreeable, for during the height of such storms the air is so thick that one cannot see across a river, and the fine impalpable dust finds its way through chinks and crevices into the houses and covers everything. But when these storms are past—and they rarely last beyond a day—and at every other time during the winter, the air is most bracing and exhilarating, although intensely cold.

The following are readings of thermometer at Tientsin last winter—December 31: maximum at 4 p. m., 17° F.; minimum at 9 a. m., 9° F. January 27: maximum at 4 p. m., 23° F.; minimum at 9 a. m., 13° F. February 25: maximum at 4 p. m., 33° F.; minimum at 9 a. m., 20° F.

During the winter one may go almost anywhere, in spite of the absence of all sanitation, without fear of contagion; and though during this severe weather there is much frostbite and starvation among the poor, and one sees the collapse of many who are already feeble and long diseased, the winter is, generally speaking, by far the healthiest part of the Chinese year.

The Chinese are not given to the use of household fires as a protection against the cold; they dress according to the severity of the weather, and spend as much time out of doors during the day in winter as in the summer. The clothing of the common people consists of two or three calico undershirts, a thickly wadded cotton tunic and trousers, a loose pair of ear caps lined with fur or feathers, and either the ordinary button-topped cap or a coarse felt skull cap with ear-laps lined with cheap fur; their shoes having soles from ¾ to 1 inch thick, made of paper or rags, they do not fear cold feet, though the floors of their houses are simply mother earth.

The middle classes dress in much the same way, but use better materials, and instead of the short wadded tunic they wear a long calico gown lined with sheepskin and surmounted with a fur-lined cape.

The clothing of the upper classes is like that just mentioned, but their garments are lined with lighter and costlier furs, and faced with gay-colored silk or satin, and they affect a kind of top-boot made of velvet.

With the early days of March comes the breaking of the long frost and the reopening of navigation. Disease soon begins to show itself again, and small-pox, typhoid and pneumonia are very prevalent.

Till March is out no one thinks of changing his winter clothing, for though the frost is gone the weather is still intensely cold. The temperature varies in the day between about 39° F. and 50° F. With April milder weather comes; there are light winds and occasional rains, but generally fine spring days. Heavy outer clothing—wadded or fur—is changed for garments simply lined with calico or silk. As the days become pleasanter disease increases, and after a few warm days enteric fever and malarial fever begin to be heard of. The temperature varies in the day between about 57° F. and 75° F. May and June are balmy and bright; there is a gradual increase of heat, and, in consequence, a general awakening of smells. Malarial fever widely prevails, mosquitoes begin to afflict, and diarrhœa and dysentery are much heard of.

The average temperature for May and June is: maximum at 4 p. m., 80° to 90° F.; minimum at 9 a. m., 65° to 75° F. July and August cover the period of intense heat. For weeks together the temperature is from 90° to 100° F. in the shade during the day, and from 80° to over 90° F. during the night. From about July 15th onward for some weeks there is almost continuous heavy rain; the moist heated atmosphere is like warm steam, people are day and night bathed in perspiration, the sodden ground exudes all sorts of noxious vapors, the rivers, always "silted up" through the neglect of dredging, are invariably flooded and overflow their banks, sweeping away the crops on the plains and carrying destitution and death to tens of thousands. Accumulations of sewage are washed into the rivers—practically the only water supply of great cities—and the water becomes badly contaminated. This fact, with the large consumption of newly or partly ripened ground fruits, such as melons, turnips, cucumbers, etc., and the enervating effect of the damp, hot weather, account for the great spread of disease during this time.

Diarrhœa, dysentery and cholera are very prevalent; malarial fever also finds many victims. Famine fever is very common in some districts, and a complication of symptoms known as typho-malarial fever, very sharp in its attack and often fatal. During this hot season only the lightest clothing is worn, consisting of a simple calico or silk jacket and trousers. The poorer people go naked to the waist, and all classes walk in the blazing sunshine bareheaded, excepting on state occasions when the thin straw official cap is worn, or on a journey when some wear a broad-brimmed straw hat.

With September the heat abates; it is still very hot in the sun, but it is possible to keep cool in the shade. With the cessation of the heavy rains comes the rapid ripening of the crops and of the later fruit, and the whole country looks fresh and beautiful. There is no pleasanter month than September in all the year. Summer clothing is still worn, but with an extra covering in the evening. The free use of unripe and rotten fruit by the Chinese brings much obstinate diarrhœa, dysentery and cholera. In low-lying districts, where the ground is sodden, malarial and intermittent fevers abound. The average temperature during this month is from 60° to 70° F. at 9 a. m., and from 70° to 80° F. at 4 p. m.

The first week or two of October are very pleasant, but after that comes a sudden change. Colder winds blow, rain falls occasionally, and the country begins to look bleak and desolate. Europeans begin with fires again, and warmer clothing is needed. Colds and chills are very frequent, and many who have fought an obstinate complaint through the summer suddenly succumb. Dysentery is still frequent, and typhoid or typho-malarial fever are more often fatal. The thermometer rapidly falls from an average of 70° F. at the beginning to about 55° F. at the end of the month, and the temperature is more even throughout the day.

November is cold, dull and cheerless. Keen, cutting winds blow from the already frozen north; there is, toward the end of the month, occasional rain or snow, mosquitoes and malaria cease to torment, pneumonia and other pulmonary complaints are common, and once more comes the great frost and the close of the rivers and ports to navigation, and another winter has begun.

The regularity of the climate thus outlined is astonishing, and it is most interesting to note with what approximate exactness year by year repeats the weather of the year before.

The diet of the people varies little with the time of year. The staple food is boiled rice, which is eaten in such quantities as would sicken a European. All other foods are used but sparingly and as a garnish to the main article of diet.

The poorer people live on the coarser millet, and seem to care little what they eat so long as it is sufficient in bulk. To this cause may be traced the chronic dyspepsia from which such numbers suffer; and to the careless habit of eating unwashed vegetables may be traced the condition of things hinted at in the saying common among European doctors in China, that to every alternate patient you may safely give a dose of santonin.

The following classification of diseases recorded in a medical mission treating annually over 10,000 patients will be of interest. The percentages for three consecutive years are given:

	Per Cent.	Per Cent.	Per Cent.
Diseases of the Alimentary System—chiefly Diarrhœa, Dyspepsia, Dysentery and Vermes...........	22.05	19.20	19.22
Diseases of the Integumentary System—Eczema, Scabies, Psoriasis, Ulcers, &c..........................	13.36	12.36	11.58
Diseases of the Respiratory System—Acute and Chronic Bronchitis, Asthma, Phthisis, &c...............	6.60	6.75	10.62
Diseases of the Eye—chiefly Acute and Chronic Conjunctivitis, Entropium, Corneal Ulcers, Pterygium, &c...........................	18.53	18.29	17.24
General Diseases—including Ague, Rheumatism, Syphilis. &c..........	16.90	20.68	16.47
Diseases of the Ear—Otitis Externa and Media, Deafness, &c...........	2.20	3.21	5.01
Diseases of the Circulatory, Genito-Urinary, Locomotor, Lymphatic and Nervous systems................	10.09	9.17	10.34
Diseases requiring Surgical Treatment..................................	10.27	10.34	9.52

The unsanitary surroundings of the Chinese, the absence of any system of drainage, the lack of a proper water supply and the want of personal cleanliness, account for most of the worst diseases from which they suffer. The utter carelessness of the Chinese in regard to sanitation may be seen from the fact that during the hot weather the open sewers or drains in Peking are cleared out and their contents spread on the streets to dry. It is this more than the intense heat which drives the members of the various legations out of the city to the purer air of the Western Hills.

Journal of the American Medical Association, September 15, 1900.

Infantile Cerebral Palsy. Classification of Twenty-five Cases, with Illustrations. By Dr. A. C. Cotton.

The Milk-control in the Kaiser und Kaiserin Friederich Hospital in Berlin. By Dr. Sommerfeld.—The paper, which is a short one, deals simply with the determination of temperature, the specific weight, the chemical analysis of foreign matter, and the bacteriological examination.

The Milk Supply in the Kaiser und Kaiserin Friederich Hospital in Berlin. By Dr. A. Baginsky.—As circumstances made it necessary that this hospital should preside over the destinies of a large number of nurslings, the authorities acquired their own stables, and by rigid attention to detail have brought about a state of affairs that is admirable. The arrangements of stalls, feeding, etc., are carefully explained and will be of value to those interested in the subject.

The Relative Value of Homatropine as a Cycloplegic: A Clinical Study. By Dr. E. C. Ellett.—Though satisfactory fitting can often be done without cycloplegia, to *accurately* test the refraction of young people it is necessary. Atropine is reliable, but the length of time necessitated by its use is an objection to it. The best method, according to Dr. Ellett, is that of the homatropine and cocaine discs, made after the formula of Dr. Casey Wood.

Some Facts about Appendicitis, Medical and Surgical. By Dr. J. H. Carstens.—Operation should immediately follow diagnosis, except in the case of a mild first attack or in the absence of facilities. Statistics of cases operated on as they come along, good, bad, and indifferent, by experienced surgeons, give a mortality of only eight per cent. Medically treated cases have a death rate of from fifteen to twenty per cent., and sixty per cent. of the patients have recurrences, while those operated on are absolutely cured.

Improved Lantern for Testing Color Perception. By Dr. Charles H. Williams.

Improved Method of Testing Color Perception. By Dr. William Thomson.

Cutaneous Manifestations in Diabetes Mellitus. By Dr. S. Sherwell.—Mentioning the fact that skin symptoms are frequently the first to call our attention to the presence of diabetes mellitus, the author proceeds to enumerate some of the more usual cutaneous manifestations: Xeroderma, pruritus, eczemas, furunculosis, etc. The sixth condition that he mentions is that of "xanthoma diabeticorum," and a description of a case is given. The patient was covered with an immense number of papular, tubercular, and nodular tumors over the extensor surfaces of the limbs. These were of a yellow color and almost exactly resembled the tumors one sees around the eyelids, especially in the upper lid around and near the internal canthus.

Diabetes Mellitus in Children. By Dr. Henry Dwight Chapin.

Influence of Sea-air and Sea-water Baths on Disease. By Dr. W. Blair Stewart, A. M.—The two great effects are upon the nervous system and the digestion. Atlantic City is particularly commended. Persons with Bright's disease and diabetics do well there, and acute lobar pneumonia is rarely seen. Warm salt baths at from 85° to 97° F. are used to encourage slight perspiration, relax the skin, reduce internal congestions, and carry off a part of the noxious products of the body through the skin.

The Identification of Dextrose in Human Urine. By Dr. Heinrich Stern.

Measurements of Chicago School Children. By Dr. W. S. Christopher.

Medical Record, September 15, 1900.

Poisonous Snakes and Snake Poison. By Dr. Gustave Langman.—The main characteristics of the poisonous ophidia being considered, the author describes the poison apparatus common to all snakes. The poison glands, button-, tube-, or almond-shaped, are situated behind either eye; when greatly developed, as in the crotalids, they give to the head a triangular shape. The glands are the homologues of the common parotid. In structure they are compound racemose glands with elongated acini; the glandular substance has columnar, the duct pavement epithelium. They respond to the action of belladonna. The poison may be retained by a circular constrictor muscle for months. The poison itself is characteristic in odor of the species, viscous, straw-colored or orange-colored, acid, of a specific gravity 1.030 to 1.077. No bacteria exist or can exist in it. Up to date no accurate analyses have been made, but it may be asserted that the active principle in all snake poison is some form of albumose. Instantaneous deaths from snake bite are usually due to general thrombosis. Speaking roughly, the sequelæ of a cobra-bite might be called an acute bulbar paralysis of the most furious type. As for viper poisoning, we have an analogy in acute ascending spinal paralysis. The poison is both a nerve and a blood poison. As a rule, in poisoning, coagulation is inhibited for a long period. The germicidal property of the blood plasma is lost. As to the relative dangerousness of a snake-bite, a gramme of cobra or aspis poison kills a rabbit weighing 4,000 kilogrammes, a gramme of hoplocephalus poison kills one of 3,450 kilogrammes, and a gramme of fer de lance poison kills one of 800 kilogrammes. In spite of the venomous character of snake poison, the prognosis is not so bad as is generally supposed. It is quite remarkable that a very rapid amelioration may set in even after the most serious nervous symptoms have preceded. The most commendable advice at present is that one or several ligatures should be used, followed by deep scarifications; then injection of antivenene, if it is at hand. Injections of hypochlorite of calcium, 1 to 60, are good, as is also stimulation with strychnine, atropine, or alcohol. Lavage of the stomach should be employed, with artificial respiration for hours and continual encouragement of the victim, for deep mental prostration goes together with the physical depression of the nervous centres.

A Few Cases of Erosions of the Stomach. By Dr. Edward Quintard.—The repeated findings from time to time of small fragments of the gastric mucous membrane shows that we are dealing with a case of erosion. The accompanying pathological conditions vary, and, as a consequence, so do the functional signs. The ætiology and pathology are not known; but in the majority of cases the patient gives a definite and peculiar clinical history distinct from that of round ulcer or that of the exulceratio simplex described by Dieulafoy. Consequently these cases should be regarded as a distinct class clinically, and treated as such.

The Radical Treatment of Tuberculosis of the Testis. By Dr. Alexis V. Moschowitz.—To the author's mind the radical treatment of tuberculous orchitis—so-called—would have to include, besides extirpation of the testis, also extirpation of the entire vas deferens, together with the corresponding seminal vesicle. Cases are cited and original cases by the author are given in detail.

A Clinical Study of the Liver as a Factor in Elimination and in the Production of Nephritis. By Dr. George E. Davis.

Medical News, September 15, 1900.

A Simple and Efficient Treatment of Talipes Calcaneus Paralyticus in Young Children. By Dr. V. P. Gibney.—Four cases are presented in evidence of the efficacy of prolonged and uninterrupted extension of the foot. This method has not been resorted to in older patients, for the reason that it is difficult to keep plaster of Paris on a limb sufficiently long to secure a good position. At present, however, the author is using a leather splint reenforced by steel in front for an adult. The author believes that almost any appliance which is worn night and day, the management of which is taken completely out of the patient's hands, should bring about good results. He himself prefers plaster of Paris.

In What Relation Does Occupation Stand to Tuberculosis? By Dr. W. Freudenthal.—A statistical article tending to make more certain the fact that "occupation has an agency in the ætiology of pulmonary tuberculosis in so far as it is sedentary and involves confinement within doors." Tenement-house surroundings, sweat-shops, etc., are referred to incidentally.

Multiple Traumatic Hæmorrhages of the Liver Associated with Multiple Pulmonary Emboli of Liver Cells and Giant Cells Resembling Bone-marrow Cells. By Dr. Aldred Scott Warthin.—In a large variety of widely varying pathological conditions we find uninuclear and multinuclear giant cells in the pulmonary vessels, and in some cases they are also found in the capillaries of the liver, spleen, and kidneys. These cells may orginate in the placenta, bone marrow, spleen, or lymphatic glands; but this fact cannot be definitely ascertained, except in cases where portions of villi or of marrow tissue are also found. It is not possible with present staining methods to distinguish between single giant cells arising from the syncytium, periplacental tissue, bone marrow, spleen, and lymphatic glands. In the majority of cases it is probable that the giant cells found in the lung capillaries arise from the bone marrow, and that in some conditions (pregnancy) the metastasis is physiological, while in others it may be of the nature of an agonal or preagonal leucocytosis. In other conditions it may be the result of diseased conditions in the bone marrow itself. In any case, the exact significance of the process remains yet to be discovered, but it is doubtless of far greater importance than that of an accidental occurrence, as it has generally been considered.

Postapoplectic Temperature and Disturbances of the Alimentary Tract: Their Management. By Dr. Henry Lyle Winter.

Philadelphia Medical Journal, September 15, 1900.

Neurasthenia. By Dr. J. T. Eskridge.—According to the author, primary neurasthenia is a condition in which the exhaustion and irritability constitute the chief derangement of health. Secondary neurasthenic states follow diseases that have induced neurasthenia. The greatest predisposing cause is heredity, after which we have nervous weaknesses, irritability, tuberculosis, syphilis, gout, alcoholism, and extreme age of the father. It occurs oftenest between the ages of twenty and fifty, oftener in the single than in the married state, and the Hebrews and Slavs are the races most predisposed to the condition under consideration. The exciting causes are both physical and psychical, and the former outweigh the latter. Indigestion, intrapelvic troubles, anæmia, chlorosis, etc., are among them. Prolonged disorders of the teeth and eyes are undoubtedly capable of giving rise to neurasthenia. The pathology very probably consists in cellular changes, so that the function is perverted, and in the development in the blood of poisonous agents, which the various excretory organs, on account of the depressed state of the nervous system, are no longer able to throw off. There is a lessened power of physical and mental endurance, and it is not infrequently difficult to draw the line between melancholia and neurasthenia. Muscular power is lessened. There is a multiplicity of subjective sensory symptoms. The general prognosis is comparatively good. A neurasthenic is apt to form the drug habit, and some cases of neurasthenia may pass into a psychosis. The most important point in the treatment is prevention. After the disease is developed, rest, partial or almost absolute diet, and in many cases isolation are called for. The digestive organs should be attended to, and skimmed milk, two or three ounces every three or four hours, should be given for the first few days. The milk should be increased to the point of toleration. Massage should also be used.

Mental Disturbances after Operations upon the Eye. By Dr. William Campbell Posey.

Resolution as an Ætiological Factor in Postcritical Temperature of Lobar Pneumonia in Children. By Dr. William N. Fisher.

Inversion of Uterus; Uterine Inertia; Short Cord. By Dr. Edward K. Bacon.—These three cases are of the highest interest; the title, however, indicates fully their nature.

A Few Cases of Diphtheria and What They Taught Me. By Dr. John Leverett.—General remark on the subject of antitoxine, illustrated by cases. If the antitoxine is to be of any service, it should be used in the first few days of the disease.

Postdiphtheritic Paralysis of both External Recti Muscles. Report of a Case. By Dr. Harry Friedenwald.

Boston Medical and Surgical Journal, September 13, 1900.

The Radical Cure of Hernia. By Dr. J. Collins Warren.—In this article the results of operations in a series of ninety-eight cases are tabulated. In the earlier operations Macewen's method was employed, but, as it proved complicated, and as the life of the sac was endangered by the quilted suture, the operation of Bassini was finally given the preference. Silk as a suture material would seem to be decidedly preferable to catgut. As to recurrence, out of fifty-eight cases, there were seven relapses. It seems reasonable to assume that if a patient continues well for a year, he may regard himself as cured. When a young man of twenty applies for treatment for congenital hernia, an operation should be advised. In non-descended testicle, there seems to be no particular harm in leaving the testicle, but after the operation it atrophies and slowly disappears.

Actinomycosis. By Dr. Charles Allen Porter.—The object of this paper is to call attention to the possibility that a proportion of the cases ranking as alveolar abscesses may be due to the specific organism of actinomycosis.

Four Cases of Actinomycosis. By Dr. John C. Munro.

Tendon Suture. By Dr. Edw. S. Hatch.

A Method of Teaching Practical Medicine. By Dr. Thomas S. Harrington.

Lancet, September 8, 1900.

Some Aspects of Biology. By Sir Wm. Turner.—The writer clearly and carefully summarizes our present knowledge as to cells and their origin, structure and function. He also discusses the phenomena of Karyokinesis and their interpretation, the nature and function of cell plasm, and the great advances made in our knowledge of nerve cells in recent years. The article closes with some remarks on hereditary variations of cells and their explanation by the Darwinian theory.

The Expectancy of Life in Cases of Cancer of the Breast. By A. E. Barker, F. R. C. S.—The following are the pathological axioms which influence surgical treatment of cancer of the breast: 1. Cancer of the breast is probably for a short time a purely local disease. 2. It soon begins to spread into the surrounding tissues by way of the lymphatics. 3. Three systems of lymphatics participate: the epi-mammary under the skin, the mammary in the breast, and the sub-mammary in the fascia. 4. The lymphatic glands of the axilla receive most of the lymph and cancer germs, and act as a dam. 5. Healthy tissues may be reinfected during an operation by the juices of the infected material in process of removal. 6. When cancerous infection has reached the underlying muscles, it usually corresponds with a spread to the internal organs. Consequent upon these the following surgical axioms are held: 1. Excision of the breast, to be effectual, must be early. 2. The overlying skin, subcutaneous fat, pectoral fascia, axillary fat, and glands, within the entire breast, must be widely removed. 3. All division of cancerous tissue should, if possible, be avoided, but, if division is necessary, sterilized instruments should be used. 4. As little direct handling of the parts to be removed as possible should take place. 5. Arrest of all immediate bleeding should be accomplished by forcipressure. 6. Such extensive removal can be accomplished in early cases with but little risk. 7. When the muscles are infected, palliation alone can be expected from surgical interference. The writer gives the results of one hundred cases of excision of the breast performed by him. Of these, ninety were cases of malignant disease; five died within three months of the operation; fourteen lived over three years, but ultimately died of cancer, and thirty-eight died within three years after the operation. Of those yet alive, fifteen have survived for over four years. Only seven suffered from local recurrence.

On the Pathology and Therapy of Angina Pectoris. By Dr. Theodor Schott.—The writer adheres to the Stokes-Parry theory of the causation of angina pectoris: *i. e.*, that it is due, not to an increase, but to a further reduction, of the muscular energy of a heart already enfeebled. The associated pathological processes are sclerosis of the coronary vessels, alterations of the aortic valves, and ectasic aortitis, which latter has a special stenotic effect upon the origin of the coronary vessels. These conditions, together with the resistance of the contracted arterial system, induce weakening of the heart. A moderate distention of the heart may lead to a temporary occlusion of the coronary vessels at the point of an already existing constriction, and so bring on an attack of angina pectoris. In other cases, a thrombus or embolus may be the cause of the block. In the treatment of the anginal fit itself, the writer prefers nitroglycerin to amyl nitrite. External dry heat is often of service. For the treatment of the heart in the interval between attacks the author recommends the Nauheim baths, as introduced by himself and his brother, but lays stress upon the fact that advanced sclerosis contraindicates this treatment.

Some Remarks upon the Treatment of Heart Disease, with Special Reference to the "Hill Heart." By Dr. H. J. Campbell.—"Hill heart" is a condition occurring in residents of hilly districts, in whom there is no valvular disease, but the heart muscle is degenerated to an extent which, though not sufficient to incapacitate the patient, yet is liable, when any sudden strain is thrown upon it, to give rise to alarming and dangerous attacks, which not infrequently terminate in sudden death. It differs from fatty degeneration, in that there is in the "hill heart" antecedent hypertrophy and a greater liability to apoplectiform attacks. In the writer's opinion such cases are due to hill climbing combined with an excess of rich food and free indulgence in alcohol, the last two conditions producing dilatation of the stomach and degeneration of the hypertrophied heart walls. The first requirement of treatment is strict dieting, and the meals should be taken practically dry. The work of the heart should be diminished by rest in bed and by the exhibition of trinitrin. Where the attacks are apoplectiform, free purgation is advisable. As a cardiac stimulant, he has had the best results with sparteine sulphate combined with caffeine citrate.

Tracheotomy with Antitoxine in Laryngeal Diphtheria. By W. B. Bell, M. R. C. S.—The writer, after stating his entire confidence in the value of antitoxine in diphtheria, reports three consecutive cases of severe laryngeal diphtheria in which he performed tracheotomy. Two of the patients recovered, but the third, after recovering from the diphtheria, died of lobar pneumonia fifty-seven days from the beginning of the illness. The author is convinced that the success of the operations was due to the antitoxine given. It loosens the existing membrane and prevents fresh membrane from forming. He never gives less than 3,000 units for an initial dose, and does not hesitate at 8,000 units for any patient over twelve years of age.

A Note on the Pathology and Treatment of Gastric Ulcer. By W. Stuart-Low, F. R. C. S.—Noting that the symptoms of gastric ulcer are those of a deficiency of mucous secretion, and that many of the cases occur in patients suffering from atrophic pharyngitis and rhinitis, the writer has, for some time past, been treating his cases of irritable stomach, painful digestion, and gastric ulcer, with mucin, which has given satisfactory results. It is administered just before meals in the form of powder, together with an equal quantity (10 grains) of sodium bicarbonate. The *rationale* of this method of treatment is to protect the irritable and ulcerated gastric surface from attrition by the food and constant worry by the hyper-acid gastric juice, the mucin forming a gluey coating over the lining membrane.

A Case of Diffuse Suppurative Peritonitis from Gangrene of the Appendix; Laparotomy; Recovery. By H. A. Duffett, F. R. C. S.—The writer, after reviewing the literature of the subject, reports the case of a boy aged fourteen, who was operated upon for diffuse suppurative peritonitis from gangrene of the appendix. The symptoms of peritonitis had appeared suddenly four days previously. There was no tenderness in the region of the appendix, the pain being transferred to the opposite side. Upon opening the abdomen it was found to be full of pus, and the appendix was lying free in an abscess cavity in the right iliac fossa. The abdominal cavity was flushed out and drained, and the patient made a satisfactory recovery. The writer thinks that the mass on the right side could have been made out by rectal examination, and that this procedure should be an invariable rule.

The Removal of Septic Effusions from the Cavities of the Human Body. By E. Armitage, M. R. C. S.—The writer reports three cases of gonorrhœal arthritis and one of basic meningitis, in which the septic effusions present were removed by the use of unguentum hydrargyri compositum. In the last case the ointment was applied to the shaven skull. The writer thinks that mercury, locally applied, is a most powerful agent against morbid processes of bacterial origin, and that it should be more frequently employed.

Note on a Case of Acute Glaucoma, the Result of an Operation for Secondary Cataract. By Dr. C. B. Taylor.

A Case of Malignant Disease of the Ovaries. By P. J. Bailey, M. B., and J. R. Lord, M. B.—The writers report the case of a woman aged fifty-six years, who suffered from malignant abdominal disease arising from the right ovary. At the necropsy, the tumor was found to be in the middle line and adherent to the brim of the pelvis, the rectum, the mesentery, and the left ovary. Microscopical examination showed a great diversity in the component elements. Some parts of the tumor could be classified as fibro-sarcomatous; others as small, round-celled sarcoma; and yet others as lympho-sarcoma. A noticeable clinical feature was the absence of ascites.

Prussic Acid in Sweet Cassava. By Professor Carmody.—The writer confirms the observations of Francis, who found that sweet cassava, which is used as a food in the tropics, contains prussic acid, which not infrequently gives rise to symptoms of poisoning. The whole of the hydrocyanic acid cannot be removed from grated cassava by two hours' extraction with water, but roasting the whole root removes all the poison. The greater part of the prussic acid is contained in the skin and outer cortical layer of the tuber.

British Medical Journal, September 8, 1900.

The Augmentation of the Royal Army Medical Corps in War. By Dr. J. E. Squire.

Volunteer Medical Organization. By P. B. Giles, F. R. C. S.

How to Link the Medical Service of the Auxiliary Forces with the Royal Army Medical Corps. By J. Cantlie, F. R. C. S.

Volunteer Brigade Bearer Companies. By G. S. Elliston, V. D.

First Aid and Transport of Sick and Wounded in Civil Life in Large Towns. By G. A. Hutton, J. P.

First Aid in Civil Life. By J. J. de Z. Marshall.

Cavalry Ambulance Service. By T. F. S. Caverhill.

Note on Ambulance Service for Mounted Troops. By V. Matthews, V. M. S. C.

The Cycle in the Field for Medical Service. By F. L. Stephenson, V. M. S. C.

The Royal Army Medical Corps, Past, Present and Future. By J. B. Hamilton, M. D.

Modern Small-bore Rifle Wounds. By Clinton Dent, F. R. S. C.—In the South African campaign, bullet wounds of all kinds have done well. Recoveries from very severe wounds have been numerous. Injuries of the limbs necessitating amputation have been fewer than in any previous war. The so-called humanity of the small-bore bullet has been exaggerated; the healthiness of the climate and the open-air treatment have been just as operative in bringing about the favorable statistics. Certain theories as to wounds have become defunct. Among them are the sterile condition of bullet wounds being due to the cauterizing action of the swiftly moving bullet, the hydraulic theory as to the explosive action of rifle bullets upon animal tissues, and the so-called wind contusions of large projectiles. Military surgery is now much more conservative; penetrating abdominal wounds, compound fractures, and joint wounds are best left unexplored. The expectant treatment has also proved best in cases of nerve injuries.

Infectious Disease Aboard Ship. By W. J. Colborne, R. N.

Sanitation in Camps. By Major James, R. A. M. C.

A Discussion on the Indications for the Intranasal Treatment in Diseases of the Ear. By P. McBride, M. D., E. C. Baber, M. D., and others.

A Discussion on the Pathology and Treatment of Toxic Paralysis of the Larynx. By P. W. Williams, M. D., S. Lodge, M. D., and others.

Auditory Results of the Removal of Post-nasal Adenoids; Modified Operation. By D. McKeown, M. D.—Contrary to the usual teaching, in a large number of cases the hearing is found, immediately after the operation for adenoids, to be much improved; indeed, so much so in some cases that the immediate result does not differ greatly from the ultimate. The writer recommends the use of the finger-nail as a curette, especially in removing the lymphoid tissue from the fossæ of Rosenmüller. Where the curette is used in this situation there is likely to be faulty cicatrization with resultant permanent deafness. Recurrence of the lymphoid tissue is remediable, faulty cicatrization is not.

Two Cases of Thrombosis of the Lateral Sinus. By S. Lodge, Jr., M. D.

Two Cases of Chronic Frontal Sinus Empyema, Presenting Features of Unusual Interest. By H. Tilley, F. R. C. S.

The Vocal Resonator. By W. A. Aiken, M. D.

A Case of Bezold's Complication of Suppurative Mastoiditis. By E. Waggett, M. B.

On the Surgical Treatment of Certain Forms of Nasal Insufficiency. By L. H. Pegler, M. D.

Liverpool School of Tropical Medicine. Yellow Fever Expedition. Some Preliminary Notes. By H. E. Durham, F. R. C. S., and W. Myers, M. B.—The writers present a few notes on some epidemiological points connected with yellow fever, observed by them in Havana.

Two Cases of Amputation at the Hip-joint for Gunshot Fracture of the Thigh during the Intermediate Stage, Followed by Recovery in One. By F. J. W. Porter.—The rarity of recovery from this operation has led the writer to report these two cases, of which one recovered.

Diphtheria and its Treatment by Antitoxine. By R. W. Marsden, M. D.—The writer has tabulated the results of 105 cases of diphtheria treated with antitoxine. In many cases the thermometer revealed the onset by showing a pyrexia before any complaint had been made. In twenty-five cases the temperature was normal throughout, while in the remainder it ranged between 101° and

105° F. Over one half the cases received antitoxine on the first day, and the vast majority during the second day. The ordinary dose administered was 2,000 units. One case, the only fatal one in the series, received 14,000 units in three doses, the first injection being given after three days' illness. In the great majority of the cases the throat was free from membrane within seventy-two hours after the administration of antitoxine. In the fatal case, in which the patient died in the third week from cardiac paralysis, the membrane persisted for seven days. Albuminuria was present in forty-nine instances. Of these, seven were suffering from post-scarlatinal nephritis, and there was not the slightest evidence that the antitoxine had had any deleterious effect upon the kidney. Seven instances of post-diphtheritic paralysis were observed, all of which recovered. Laryngeal symptoms were present in six cases, tracheotomy being necessary in one. Of the various symptoms due to the antitoxine, erythema was most common, occurring in twenty cases. There were four cases of pains in the joints.

Cervello's Treatment of Phthisis. By N. E. Norway, M. R. C. S.—A trial of Cervello's "igazol" in three cases has convinced the writer that it is a valuable auxiliary to the open-air treatment of phthisis, especially when it is necessary to treat the patient at home.

Indépendance médicale, August 22, 1900.

The Treatment of Infantile and Adolescent Scoliosis. —M. A. Chipault treats the scoliosis of adolescence without thoracic deformity by the application of a well-fitting plaster jacket during suspension by the feet. This manner of suspension allows better than other methods of the rectification of the spinal column and the application of a well-fitting corset. The corset is removed once daily, a bath is given, and massage and vertebral exercises are gone through with. This treatment lasts from three to six months and usually results in a perfect cure. When thoracic deformity exists, the same methods are pursued, and with patience, satisfactorily. When the deformity is marked, the author attempts, by apparatus and massage, to replace the vicious ankylosis by a corrected ankylosis. In infancy, the acute stage is treated by pedal suspension and an immovable plaster corset. In from two to three days the pain and the fever subside. The cases with deviation are treated like those of the adolescent age.

Presse médicale, August 25, 1900.

Chronic Tuberculous Peritonitis in Childhood.—M. Eugène Terrien says that these cases may be divided into three clinical stages: 1. The stage of irritative exudation; that is, of free ascites. 2. The period of membranous formation, corresponding to the encystment of the ascitic fluid. 3. The stage of agglutination of the viscera, corresponding to the fibrocaseous condition. The last form is only exceptionally seen. The author speaks of the remarkable enhancement of recovery by opening the abdomen in the ascitic stage of the disease, but decries laparotomy in the last stage of the disease. If a fluid is shown to be present simple puncture is advised, followed by lavage with boiled water or an injection of camphor naphthol, as recommended by Rendu. If the puncture reveals a beginning encystment, laparotomy must, again, be performed at once. Sometimes hygienic measures and drugs will suffice to bring about a cure in the first stage of the disease.

August 29, 1900.

Mucomembranous Enterocolitis.—M. P. Froussard, in an exhaustive study of this subject, considers its phenomena in the adult and among children. He accepts the statement that this disease may be an ætiological factor of the slow, chronic forms of appendicitis. The author considers in detail each variety of the disease with all its possible complications in the nervous system, in the skin, and in the viscera of the thorax and abdomen.

Gazette hebdomadaire de médecine et de chirurgie, August 30, 1900.

Blennorrhagic Arthritis in Children.—M. J. Hallé reports two such cases in which the gonococcus was found in the affected joints and in the pus from the vagina. In one case the sterno-clavicular joint was attacked, in the other the hip. The author makes the point that in such cases it is essential to distinguish between coxalgia and rheumatism. He found that irrigation of the vagina in both cases with a one to 1,000 solution of potassium permanganate not only benefited the discharge but also helped to ameliorate the arthritic inflammations.

September 2, 1900.

Infectious Diseases and Leukæmia.—M. Emile Weil has observed several cases of leukæmia which were subsequently infected by the streptococcus, the colon bacillus, or the pneumococcus. His conclusions are that the infectious diseases in myelogenous leukæmia cause a diminution of the leucocytosis with a more or less complete disappearance of the granular uninuclear forms and of mitotic forms. In chronic lymphatic leukæmia, however, there was noted an enormous increase in the total leucocytosis. The polynuclears increased but little while the eosinophile cells disappeared. In acute leukæmia, the leucocytosis diminished and the leucolysis was sometimes complete. The streptococcus toxines appeared to be the most powerful. In all cases, the leukæmic tumors diminished in size. The red blood cells were no more affected in these patients than would be those of healthy persons similarly infected. These blood changes were, however, only temporary, for as soon as the infection was overcome, the blood resumed its leukæmic properties. The author suggests that in the absence of a specific remedy for leukæmia, the microbic toxines might be tried therapeutically, for opotherapy by splenic or medullary extracts seems to be useless. He also advises the simultaneous administration of arsenic in the form of the cacodylate of sodium, which has, in leukæmia, an excellent effect upon the restoration of the red blood cells.

Wiener klinische Rundschau, August 26, 1900.

Death after Resection of both Internal Jugular Veins.—Dr. Carl Ewald reports a case in which it was necessary to tie and remove parts of both internal jugular veins during operation for resection of the tongue and pharynx. The patient died a few hours later from cardiac and pulmonary paralysis.

Transplantation of Mucous Membrane in Atresia Vaginæ. By Dr. S. G. Schalita.

Phosphorus Necrosis (*concluded*).—Dr. Josef Lévai says that in the microscopical sections of the diseased bones in his cases he has always been able to see a primary lesion of the endothelium of the blood-vessels of the bones. This evokes a thrombosis which leads to the subsequent necrosis. Probably an infection of the thrombus of some kind is the factor that brings forth the necrosis.

Berliner klinische Wochenschrift, August 27, 1900.

The Relation of Nasal Disease to General Diseases.—Dr. Seifert points out the constitutional effects of adenoid vegetations, laryngeal, tracheal, and bronchial catarrh, pneumonia, the obstacles to nursing, the secondary dyspepsia, etc. He speaks of the disturbances of the heart that may accompany nasal disease, and *vice versa.* He then gives a general review of the constitutional effects of nasal diseases and the effects of the various visceral diseases upon the nose.

The Special Danger of Purulent Otitis Media in the Aged.—Dr. Heine, reporting four fatal cases, urges the danger of otitic inflammation in the aged. He says that in patients over forty years of age, in whom the bones are almost always somewhat sclerosed, the picture of advancing suppuration is sometimes obscured, and an immediate operation offers the best prognosis.

The Treatment of Empyema of the Antrum of Highmore.—Dr. Max Halle prefers opening an empyema of the antrum into the lower nasal chamber. After cocainization, a trocar is introduced close to the sæptum and pierces the outer wall near the floor of the nose. The cavity is irrigated with boric acid daily, then insufflated with iodoform. This is practised daily at first, later at longer intervals. He says that the cures are more rapid than when the opening is made into the canine fossa, the patients are not annoyed by the taste of iodoform in the mouth, and the danger of reinfection from the opening in the mouth is lessened.

Operations on the Kidney When There is Only One or when the Other is Diseased.—Dr. Manhilwicz advises conservatism in all operations on the kidney. Such operations are to be undertaken only after the operator has assured himself by all means at his command that the remaining kidney is performing its functions normally or is not absent. If one is doubtful, nephrectomy may be performed only after a preliminary nephrotomy has demonstrated the true condition of affairs. The safest method of determining the condition of both kidneys is by the separate catheterism of both ureters. The subcutaneous injection of phlorrhizin, which produces an artificial glycosuria, is a particularly good test.

Deutsche Medizinal-Zeitung, August 27, 1900.

The Parasitic Nature of Eczema.—Dr. P. G. Unna repeats his well-known views as to the micrococcic origin of eczema, and gives a list of twenty-three varieties of cocci found in this disease. His experiments, mainly by human and animal inoculation, show that different organisms are found in different stages, and, that on inoculation, these bacteria always evoke that stage of the disease.

August 30 and September 3, 1900.

The Treatment of Gonorrhœa.—Dr. H. Strebel believes that the essential elements of successful treatment of an acute gonorrhœa are drainage and the constant presence in the urethra of a bactericidal agent which will not damage the urethral epithelium. He has devised an instrument for these purposes. A thick elastic rubber tube of varying length, depending upon the seat of the disease, is provided with numerous openings. About an inch from the distal end a rubber hemisphere is placed for the reception of the penis. The tube is placed in the urethra with the aid of a guide if necessary, and the penis is enclosed in the receptacle provided for it. Through the open end of the tube the desired fluid is injected and it is retained by a clamp. It is allowed to remain as long as it is thought desirable. The apparatus is further made water-tight by fastening the receptacle for the penis to that organ by an adhesive strap or rubber hand. By the gentle pressure excited, the urethral folds are so distended as to bring the antiseptic fluid into contact with all parts of the urethra, and the mingling of the pus and the normal secretions of the urethra is fostered, which the author considers most important. When the pus is finally freed from gonococci, astringent solutions may be used, and the author sees in the constant presence of such a solution a greater advantage than in the occasional injection of an astringent fluid, as is at present customary. There is a prophylactic use for the instrument in instituting early drainage. The author uses solutions of quinine and glycerin, protargol, pyoctanin, and ichthyol. He prefers the combination of pyoctanin and glycerin as being least irritating to the urethra, very decidedly bactericidal, and fostering the diffusion of pus and urethral secretion. He advises for subacute and chronic gonorrhœa the employment of urethral bougies (urethrophores) containing protargol and glycerin or nitrate of silver and glycerin. These are placed in the urethra and allowed to dissolve. They may also be used, in a modified form, as a prophylactic against gonorrhœa, the urethral canal as well as the glans penis being anointed with the soluble material.

Wiener klinische Wochenschrift, August 30, 1900.

The Pathogenesis of Icterus.—Dr. Browicz concludes that the basis of jaundice rests upon an increased function of normal liver cells, which, under the stimulus of great quantities of food and of increased function, of consequent unusual amounts of hæmoglobin, secrete unusually large amounts of bile and biliary coloring matter. Only normal liver cells can excrete into the biliary passages such large quantities of bile as reach the capillaries in this way. The bile is mainly taken up by the blood vessels, in part only by the lymph channels. All forms of icterus may be explained in this way.

Experience with Schleich's Marble-dust Soap.—Dr. Ernst Fuchsig writes that the mechanical disinfecting properties of this soap, which has been used in Professor Albert's clinic for six months, mark a distinct advance in the aseptic preparation for operation, not only for the surgeon's hands, but for the patient's skin also.

Wiener medizinische Blätter, August 30, 1900.

Immunity. By Dr. Hans Buchner. (See *New York Medical Journal* for September 15, 1900, p. 459.)

Toxines and Antitoxines. By Dr. Paul Ehrlich.

The Treatment of Seeming Death in the New-born. By Dr. B. S. Schultze. (See *New York Medical Journal,* September 8, 1900, p. 412.)

Centralblatt für Gynäkologie, September 1, 1900.

Hypertrophy of the Breast.—Dr. Carl Donati narrates the details of a case in which a young nulliparous woman had enormously large mammary glands without any apparent cause. In three weeks after her subsequent confinement, which was prematurely induced on account of an increasing albuminuria, a slight secretion could be obtained. The author believes a true hyperplasia to have existed.

Cephalic Perforation; Living Child.—Dr. Ludwig Pernice reports the case of a child which came under his observation. The attending physician had thought he had to deal with a contracted pelvis, and, after a long delay, had perforated the child's head. Blood, cerebrospinal fluid, and brain tissue appeared. The child was then easily extracted alive with the forceps. It had a left-sided hemiplegia, from which it recovered. The wound in the skull healed perfectly. [The reporter believes that the case was misunderstood by the accoucheur: that the perforator did not penetrate the skull; that the delay in the labor was due to atony, which was overcome by the excessive movements of the child when the instruments were used; that the blood came from some part of the uterus or vagina. The mother had no pelvic contraction. The case is unique, however.]

The Obstetric Bag of 1889. By Dr. Krevet.

Centralblatt für Chirurgie, September 1, 1900.

Osteoplasty of the Inferior Maxilla.—Dr. W. Sykoff says that osteoplastic resection of the lower jaw, when it can be performed, is to be preferred to prosthetic apparatus. The three essentials to a successful operation are the retention of the perinæum and of a bony bridge for the support of the subjacent tissues; the retention of the marrow; and an aseptic condition of the transplanted piece of bone. He reports a successful case.

Riforma medica, August 10, 11, 13, 14, and 16, 1900.

The Surgery of the Liver and Biliary Apparatus. By Dr. G. Schiassi.—The writer reports the results of his experience in this field of surgery during the past year. He operated on six patients with cholecystitis and cholangeitis due to stones, and on one patient with abscess of the liver. In one case the origin of the cholecystitis and cholangeitis was traumatic. Four months after the injury, the patient, who was a man aged sixty-six years, became jaundiced, and a tumor was noticed in the right hypochondriac region. The swelling was elastic, was slightly sensitive on pressure, and moved with the respiration. There were the usual symptoms of biliary obstruction and marked dyspepsia. All possible remedies were tried without effect, and it was believed that some neoplasm was the cause of the obstruction. As the patient's condition was getting worse, and emaciation, ascites, etc., had increased, laparotomy was performed. A considerable quantity of fluid was found free in the abdominal cavity; the gall-bladder was distended, and the whole region of the bile-ducts was surrounded by firm fibrous adhesions. No attempt was made to isolate the ducts, on account of the condition of the patient, which was such as to necessitate rapid operation, but a cystentero-anastomosis was performed. The patient died of collapse six hours after the operation. Traumatic lesions of the bile-ducts are rare, and but few cases have been reported. In the present case the inflammatory reaction produced a slow process of new connective-tissue growth which ultimately obstructed the bile-ducts. Patients who have been suffering from chronic cholæmia are bad subjects for an operation, and often die of shock.

A Case of Pure Congenital Dextrocardia. By Dr. M. Crispino.—Cases of uncomplicated dextrocardia are very rare; those in which there is complete transposition of the thoracic organs are more frequent. The diagnosis is very difficult in many instances, and radiography, although of some help, does not always give a distinct picture of the anatomical conditions. The ætiology of anomalous positions of the heart is obscure, but it is supposed that certain variations in the development of the embryo are at the root of the anomalies, or it is possible that the heart is displaced by lesions of the pericardium, or of the lungs, or of the thoracic skeleton, which take place *in utero*. It is not impossible that these lesions occur in early infancy and are not noticed. The patient whose history is reported in the present article was a woman aged fifty-five years. Nothing in her heredity indicated a predisposition to anomalies of development. On examination, it was found that no impulse whatever could be felt anteriorly, but when the woman lay supine a strong pulsation could be made out in the right anterior axillary line at the fifth interspace. When the patient was in the vertical posture, the pulsation became weaker, but remained in the same position. On percussion, the upper limit of the area of dulness was found to be limited by the upper border of the fourth rib, on the right by a line which was situated between the right anterior axillary and mammary lines; below, it merged into the hepatic dulness. The heart sounds were normal at the apex (at the point mentioned) and in the second left interspace; in the second right interspace the first sound was somewhat muffled, the second accentuated. The heart beat was rhythmical and the pulse did not correspond to the apex beat in force. On radioscopic examination, it was found that the apex was directed toward the right side, and that its movements were directed from above downward and to the right. The aorta arose from the base and bent downward on the right side of the vertebral column. The left half of the diaphragm was decidedly higher than the right, but the movements of the diaphragm were uniform on both sides.

August 21, 22, 23 and 24, 1900.

Concerning Auscultatory Percussion of the Thorax in the Diagnosis of Incipient Pulmonary Tuberculosis. By Dr. Stefano Tinozzi.—The author has studied the applicability of Guéneau de Mussy's method of transthoracic auscultatory percussion in the diagnosis of early stages of pulmonary tuberculosis. This method is a combination of percussion and auscultation which Guéneau de Mussy used principally in the diagnosis of tuberculosis of the mediastinal glands, and to which he gave the name of "transsonance plessimétrique." The mode of procedure is as follows: The anterior surface of the chest is percussed while the ear or stethoscope is applied to the corresponding points posteriorly. A quick, short tap will give the best results, and the force of the blows should be as light as possible. In percussing the apices, the ear must be placed over the supraspinous fossa of the scapula. It is well to employ simple percussion beforehand, in order to determine at what point auscultatory percussion is necessary. Bougon modified this method somewhat, and advised that the ear be applied to the interscapular region at the level of the second dorsal vertebra. In health the auscultatory sound that is obtained by this method has been compared by Guéneau de Mussy to the sound produced when one strikes one's knee with both hands clasped in such a manner that the palms face each other. In the presence of consolidation, the intensity of the sound diminishes, the pitch becomes somewhat higher, and the sound becomes more dull, more dry, and its duration diminishes. The point percussed seems to be nearer to the ear than in health. This method serves to detect involvement of the apex when other means of physical diagnosis do not give any signs whatever. By its use, we can correct the results of the ordinary methods, especially in those cases in which the lesion is situated in the centre of the apex and cannot be made out by ordinary auscultation and percussion. The writer reports thirteen cases of incipient pulmonary tuberculosis in which he used the method of Guéneau de Mussy, and draws the following conclusions: 1. The phenomenon of pleximetric transsonance of the thorax is a normal physical sign. Its alterations constitute a physical sign of disease that has a constant and definite significance. 2. The physical signs of incipient pulmonary tuberculosis which are usually relied upon in diagnosis are only indications of a probability of the presence of a tuberculous focus. 3. The presence of changes in the transsonance of the thorax renders the diagnosis of tuberculosis more probable, and in some cases constitutes the only physical sign of diagnostic value. In doubtful cases, therefore, the physician should always use auscultatory percussion. 4. This method of diagnosis also reveals the presence of tuberculous adenitis of the bronchial glands, a precursor of tuberculosis of the lungs, especially in young subjects.

Vratch, August 12, 1900 (August 24, N. S.).

A Case of Inguinal Hernia in a Woman Aged Forty-four Years. By Dr. S. Th. Grenkoff.—A report of a successful operation in a case of hernia with an enormous sac that had been carried by the patient for seventeen years.

Operative Treatment of Ascites in Cirrhosis of the Liver. Method of Suturing the Omentum to the Anterior Abdominal Wall (Omentofixation) and the Formation of Artificial Adhesions in the Abdominal Cavity. By Dr. M. M. Kouznetsoff.—As the result of a study of the cases reported in literature, and of his own experiments on dogs, the writer draws the following deductions: 1. The operative treatment of ascites, due to narrowing of the portal vein, by suturing the omentum to the anterior abdominal wall for the purpose of forming peritoneal adhesions, can give satisfactory results, and therefore merits further application and study. 2. The complete ligature of the portal vein in dogs, without the preliminary suturing of the omentum to the abdominal wall, causes the speedy death of the animal. If the operation of omentofixation has been previously performed, however, a collateral route is formed for the portal circulation, and the animal is able to bear two ligatures of the portal vein—one complete ligature above the entrance of the gastrosplenic vein into the portal, the other, partial, at the entrance of the portal vein into the liver. 3. A complete ligature of the portal vein below the point of entrance of the gastrosplenic tributary, even after the preliminary omentofixation, kills the animal in a few hours. The cause of death is to be sought in the fact that the blood can no longer flow from the tributaries of the portal into the new collateral routes created by the suture of the omentum, because the ligature is below the gastrosplenic vein into which the omental veins empty. 4. The superficial veins of the abdomen become enlarged after ligation of the portal and omentofixation. The veins of the omentum also become enlarged, and a collateral circulation is established between them and the veins of the abdominal wall. Thus the blood from the portal vein flows into the gastrosplenic, thence into the omental and superficial abdominal veins, which empty into the femoral, mammary, and intercostal veins.

Medical Report of the Municipal Lying-in Institutions of St. Petersburg for the Year 1899. By Mme. E. L. Pouschkine. (*Concluded.*)

Materials for the Study of the Epidemic of Plague in Kolobovka. By Dr. M. G. Tartakovsky. (*Concluded.*) The writer has studied the pathology and bacteriology of the cases of plague in the epidemic which occured in Kolobovka, a village of the Province of Astrachan, from July 16th to August 9, 1899. Compare clinical account in *New York Medical Journal, April* 21, 1900, p. 616, and April 28th, p. 659.) His conclusions are as follows: 1. The plague was introduced into Kolobavka directly by an infected person or indirectly by some object belonging to a person who had died of the disease shortly before its appearance in the village. 2. The marked virulence of the cultures obtained from the plague patients in Kolobavka, the intensity of the morbid processes, and the rapid course of the disease, speak against the possibility of infection from objects that had been imported from a distant country. 3. The infection was not brought to the village by rodents. 4. Autopsies on animals, numbering over four thousand, showed that rodents and other animals, including the domestic varieties, were immune to the plague in Kolobovka.

Journal Akouscherstva I Gienskich Boliesney, June, 1900. (Journal of Obstetrics and Gynæcology, St. Petersburg.)

A Review of Forty-four Myomotomies Performed during the Past Year. By Dr. Strauch.—The writer reports the history of these cases of uterine fibroids. In commenting upon the results of the operations he says, that within the past five years his views concerning fibroids and their treatment have changed considerably, and that, as a rule, he uses the conservative treatment whenever possible. Myoma is a benign growth, although cases have been shown in which it became transformed into a sarcoma. These cases are so rare, however, that it is hardly justifiable to remove every fibromyoma on the ground that it may become sarcomatous. Of late a theory has been advanced which makes the possibility of complicating pelvic peritonitis the indication for operative intervention in fibroids of the uterus. In his forty-one cases the peritonæum and uterine appendages were found normal eleven times. The writer considers as urgent indications for operative interference in fibroids, very severe, uncontrollable hæmorrhage, acute pain, rapid growth of the tumor, or severe symptoms on the part of the bowels or bladder. Of late he has advised operation somewhat earlier in cases in which there were disturbances of the heart's action, for it has been shown by Strassman and Lehman that there is undoubtedly a connection between changes in the heart and myomas of the uterus. The indications which determined the removal of the uterus in the forty-one cases reported were as follows: In eighteen cases, hæmorrhage, in ten, severe pains, in six, rapid growth of the tumor, in three, abnormal manifestations on the part of the bladder; in two, disturbances of the heart's action; and in two, pregnancy. The writer prefers the vaginal route whenever possible. If the vagina is too narrow to allow a good view of the parts, an accessory incision is useful. Morcellement is a great improvement on the older methods of vaginal hysterectomy. The remainder of the article is devoted to descriptions of technique.

External and Internal Vaginal Electrization by Means of Elastic Tampon Electrodes in Diseases of Women. By Dr. A. N. Alexandroff.—The writer distinguishes two types of vaginal electrization,—the internal, in which both electrodes are introduced into a cavity, as for example one into the vagina and one into the rectum, and the externo-internal, in which one pole is placed on the surface of the body, while the other is introduced into the vagina. In this article, he describes a new set of vaginal elastic tampon electrodes which are to be employed in conjunction with an external abdominal plate. He reviews the literature of the subject and criticizes the existing vaginal electrodes. He was the first to suggest the elastic tampon form in 1886. The electro-applicator, which he devised, consists of a glass or celluloid uterine tube containing a carbon cylinder like that used in the arc-light. The end of this carbon cylinder is capped with the ordinary electrode connection for the wire that leads to the battery. The glass or celluloid tube branches out at its lower end into two lateral tubes, to which rubber connections are attached, one leading to an Esmarch's can, the other for the outflow of the salt solution which flows through the apparatus. The tip of the central tube is connected by means of a short piece of rubber tubing to the elastic tampon, into which the carbon and the end of the glass tube project. This tampon consists of a spherical bag of the material used in making French condoms. Lateral openings are made in the glass tube, to allow the flow of the liquid from the irrigator and the outflow into the receptacle connected with the lower end of the apparatus by rubber tubing. The appliance is not really an electrode, for even when the current is turned on, no electricity reaches the uterus unless the liquid flows through the tube into the bulb, and establishes a connection between the current in the carbon and the exterior of the sphere represented by the tampon. The great advantage of his tampon is, that when the fluid flows through the apparatus, the tampon is stretched and adapts itself to the surface of the cavity into which it is introduced. The tampons are disinfected after each application, and the writer has never seen a case of infection through the use of the same tampon in a number of patients. In practice, he places a larger condom over the tampon of the apparatus before introducing the electrode, and reserves a separate condom for each patient. The decomposition of the salt solution used in the electrode also contributes to the asepticity of the appliance. (*To be continued.*)

A Case of Fibromyoma of the Uterus Complicating Pregnancy. By Dr. S. B. Bychovsky.

Concerning the Question of the Duration of Pregnancy, Labor and the Puerperal Period in Young Primiparæ. By Dr. N. P. Mariantchick. (*Concluded.*)

Miscellaneous.

The Prophylaxis of Plague by Preventive Vaccination.—Dr. Calmette (*Echo médical du Nord,* August 19th) in a paper read before the International Congress of Hygiene, said that the labors of Roux, Yersin, Borrel, Salimbeni, Haffkine, and himself had made the efficacy of preventive inoculations, both of antiplague serum and of cultures of plague bacilli previously killed by heating to a temperature of 158° F. for one hour, no longer in need of demonstration. It was known that the serum conferred a very real and almost immediate action, but one, unfortunately, of very short duration. It was, therefore, necessary, whenever antiplague serum was used during an epidemic, to repeat inoculation every two weeks with a dose of ten cubic centimetres of serum, to keep up the immunity. This method presented advantages and inconveniences. The advantages were: (1) an immediate immunity almost absolute; (2) ready submission of every one, even children, to the measure, because it was not at all painful; (3) it was never harmful; (4) the serum preserved its activity intact almost indefinitely when aseptically prepared. The inconveniences were: (1) the short duration of the immunity; (2) the high price of the serum and the difficulty of procuring it in sufficient quantity to vaccinate an entire community every fortnight; (3) the difficulty of rendering such vaccination compulsory, or even diffusing widely a practice which required fortnightly repetition. These inconveniences were of such a nature as to greatly limit the employment of a preventive serum. The serum method was, however, indicated under the following circumstances: (a) on board infected vessels at sea, to prevent the disease from spreading among the passengers and crew; (b) in lazarettos, to confer temporary immunity upon the personnel charged with the care and disinfection of merchandise brought by a suspected vessel, or by one on which cases of plague had occurred; (c) in docks, warehouses, or other places where possibly contaminated goods were occasionally handled; (d) in time of an epidemic, for the immediate vaccination of persons who might be temporarily brought into contact with the plague-stricken, and of those who had already become infected.

The method of vaccination by cultures of bacilli killed by heating to a temperature of 158° F., M. Calmette continued, as applied on a large scale in India for three years by Mr. Haffkine, undoubtedly possessed the advantage of conferring a much longer immunity than that resulting from antiplague serum. The exact duration of this immunity was, however, very variable, and depended upon the quantity of microbic bodies contained in the culture, or the age of the latter, its toxicity, and its mode of preparation. It was impossible to fix this duration in man. It might continue for some days, only, or for many months. In animals susceptible to the plague, as apes, the immunity produced by a single injection of from two to three cubic centimetres of Haffkine's culture did not exceed, in the author's experience, three weeks or a month. It was necessary to repeat the injection twice or three times, at eight-day intervals, in order to obtain in these animals an immunity extending for three or four months, rarely more.

Mr. Haffkine, the author said, had not studied experimentally the effects of his vaccination. In order to appraise its value, M. Calmette had vaccinated by its means a series of apes, guinea pigs and rats, with a view of determining not only the duration of the immunity after one, two, or three injections of heated vaccinal culture, repeated at eight-day intervals, but especially with the object of ascertaining the time at which immunity appeared after vaccinal inoculation. He was convinced that immunity, after a single inoculation of three cubic centimetres of bouillon culture, a month old, and heated for one hour to 170° F., was not established till the end of the seventh day. It lasted, on an average, three weeks in the guinea pig, and a month in the ape, the proof of resistance being obtained for all the animals with the same dose of the same virus, a one-per-cent. forty-eight-hour culture in gelose. In the rat, immunity was more durable after a single injection of two cubic centimetres of heated culture. In the author's experience, it extended over three months. We could not draw conclusions, said the author, from these facts as to its action on man. Since Haffkine's vaccination was more efficacious in the rat, an animal specially susceptible of plague, than in the guinea pig, which was far less susceptible, it was possible that, as Mr. Haffkine also believed, a single vaccinal inoculation was capable of giving a longer immunity in man than in animals. It was impossible to affirm anything on this subject. It must, however, be conceded that Haffkine's vaccination was very useful in infected countries for the following reasons: 1. One could easily, and almost without expense, prepare in a few weeks, great quantities of cultures of plague bacilli, and consequently of Haffkine's serum, since all that was necessary was to heat these cultures, when one month old, for one hour at a temperature of 158° F. 2. The inoculation of the heated cultures was readily accepted. It caused only a little swelling and lymphangeitis during five or six days at the seat of inoculation. 3. With these heated cultures the population of an entire town or community could be vaccinated, and the receptivity of the inhabitants for plague be overcome, thus staying all chance of the progress of the disease.

This method was, however, open to grave objections which were of such a nature as to prevent public authorities from making its employment compulsory, and which consequently limited its advantages: 1. As the author, in conjunction with M. Salimbeni, had shown in the recent outbreak at Oporto, during the period of immunization with heated cultures, animals were extremely sensitive to minimal doses of virus rarely fatal for non-vaccinated animals. Whence it followed, that a person incubating with a mild attack of plague might have his malady seriously aggravated, if he submitted at this time to Haffkine's preventive inoculation, and a fatal result was possible. This consideration explained some cases of rapid death by plague which had been observed in India following upon these inoculations. 2. The injection of heated cultures produced a more or less active fever, ordinarily of short duration, but severe enough, in some cases, to oblige the patients to discontinue their occupations. 3. The lasting power of heated cultures was much less than that of serums. It did not exceed six months. The combined action of air and light very quickly attacked their toxicity. It was, therefore, necessary to renew them frequently and not to make use of stale cultures. In spite of these objections, said M. Calmette, heated cultures could render great services in time of epidemics. They rendered possible the almost immediate limitation of extension of the disease. The use of an antiplague serum, which did not present the dangers of Haffkine's method, was, however, to be recommended, especially on board ship, in lazarettos, hospitals and detention camps, inasmuch as it and the cultures were the sole remedies capable of being employed in declared plague. Plague constituting at this time an actual, permanent menace to all the ports of Europe and America, and restricting commercial relations with infected countries, the navigation companies, ship owners, and the naval services should make the necessary arrangements so that all their vessels might have, on leaving an affected port, a sufficient supply of antiplague serum. Special instructions as to the mode of use of the serum for the preventive vaccination of every person on board as soon as a suspicious case occurred, should be given to every captain and medical officer of a vessel. These instructions should describe the measures to be taken for the destruction of rats and of various parasites (as fleas, mosquitos, etc.) capable of propagating the disease, as well as for properly disinfecting freight while *en route*, should a case of plague appear on board. Lazarettos, sanitary authorities, and civil and maritime hospitals in all ports of war or commerce should possess, and at fixed times renew, a supply of antiplague serum. In those ports where there were bacteriological laboratories, the laboratory director might properly be charged with the keeping of the serum, its distribution to marine sanitary officers, ship owners, or captains, and with furnishing them with proper instructions; and should also himself direct its use when recourse could be had to him. It was said, with much reason, that the best means of avoiding war was to be always ready for it. That was also the best means of avoiding the plague. The sanitary officers of vessels and of ports were excellent international sentries whose vigilance should be ever on the alert. Let each country assure to them, as was done in France, all their equipment, that was to say, the supply of antiplague serum necessary to check an incipient epidemic at the first case; let every country organize in its great maritime centres bacteriological laboratories, as an advance-guard, well found and directed by competent men. Plague would thus soon cease to be a cause of continual anxiety and alarm to civilized people.

Proceedings of Societies.

AMERICAN LARYNGOLOGICAL, RHINOLOGICAL, AND OTOLOGICAL SOCIETY.

Sixth Annual Meeting, Held in Philadelphia on May 31 and June 1 and 2, 1900.

The President, Dr. D. Braden Kyle, of Philadelphia, in the Chair.

(*Continued from page 479.*)

Three Cases of Ligation of the Internal Jugular for Septic Thrombosis Following Purulent Otitis Media.—Dr. E. B. Dench, of New York, reported the cases, and said that the majority of such cases terminated fatally unless relieved by the surgeon. In the past fifteen years the means of recognizing the condition had become better and the technique had also been greatly improved. The secret of success was in making an early diagnosis and resorting to an immediate operation. The history of sinus thrombosis seemed to him about as characteristic as that of any other condition met with. There were the typical rise and fall of temperature. One should be able to make a positive diagnosis after watching a case for forty-eight hours.

A Discussion on Adenoids.—Dr. T. H. Halsted, of Syracuse, considered the subject of Anæsthesia in Children with Adenoids and in the Adenoid Operation. He said that children with adenoids presented two distinct conditions, viz., (1) the lymphatic diathesis, manifesting itself locally in the nasopharynx, and (2) the constitutional results of mouth-breathing. Not only were children of this diathesis, and children who were compelled to breathe through the mouth because of adenoids, affected locally in the nose, throat, and ear, but every tissue, every cell, and every organ in the body was impaired by deficient oxygenation of the blood. Impaired lungs, cerebrum, and heart were almost of necessity the results. He believed in the complete removal of the adenoids whenever a removal was called for, because remnants tended to enlarge and cause a recurrence of symptoms, rather than atrophy and shrink, as was believed to be the case a few years ago. To a child under twelve years of age, as a rule, a general anæsthetic should be administered, because the operation in itself was exceedingly painful, and the amount of shock caused by the pain, fright, and blood was such that irreparable damage might be done to the nervous system of a sensitive child. Not only this, which was an important consideration, but still more important was the difficulty in removing all the growth without a general anæsthetic.

As to the anæsthetic to be employed, he stated his belief that, instead of being a safe anæsthetic in childhood, chloroform was peculiarly dangerous in this period of life, because so many children were of the lymphatic diathesis, the very condition which was found present by Kolisko on the post-mortem table of persons killed by chloroform when the heart, lungs, and kidneys were in an apparently normal condition. Children with adenoids, of all others, presented the most favorable conditions for the dangerous effects of chloroform. Operating during primary chloroform anæsthesia was the most favorable time for a fatal result, because here there were combined the great heart depressants, chloroform, fear, shock, and pain, any one of which might be sufficient to produce cardiac failure.

Statistics as to deaths from chloroform, ether, or any anæsthetic were unreliable, for physicians refused to report their cases. The speaker reported a fatal case from chloroform in the adenoid operation, and stated that he could find but one other case, that of Wishart, reported during the past two years, or since Hinkel reported his case and collected the cases up to that time. So far as they went, however, statistics were all favorable to the view that chloroform was, in general surgery, from three to seven times as fatal as ether, and the author thought that children of the lymphatic diathesis, or those with adenoids, were peculiarly susceptible to the depressant effects of chloroform. He had had no experience with ethyl chloride, feeling that the objections to chloroform were equally applicable to that drug, an anæsthetic in many respects like chloroform and, from the number of deaths reported, not a harmless one. The action of nitrous oxide was too evanescent to permit of a satisfactory adenoid and tonsil operation. All things considered, he thought the best anæsthetic was ether. Primary ether anæsthesia was often all that was required, but when a longer operation was to be expected the third stage should be reached. Expertness in operating should be cultivated, but not at the expense of thoroughness. Ether, as compared with chloroform, had many disadvantages, but they could be largely diminished by a good anæsthetizer. As a rule, ether was badly or indifferently administered, few physicians being good anæsthetizers. The speaker said he had lately been in the habit of giving atropine hypodermically to children over seven, and often under this age, in order to diminish the excessive mucous secretion in the throat and lower respiratory passages, and with an almost uniformly excellent result. On a few occasions he thought that possibly the dryness of the mucous membrane had interfered with the expulsion of the blood and what mucus was secreted. He had also of late been in the habit of anæsthetizing the nasal mucous membrane by applying with a cotton swab a few drops of a five- or ten-per-cent. solution of cocaine. He never sprayed with the cocaine, but always used a fine nasal applicator with a small cotton swab, not more than two or three drops of the solution being required. This was gently and quickly passed into both nostrils and over the mucous membrane. This was done on the theory of Laborde that nausea and vomiting caused by ether or chloroform was brought about by the irritation of the peripheral branches of the trigeminal nerves, which, when irritated by chloroform or ether, caused a reflex stimulation of the pneumogastric and inhibitory respiratory centre in the medulla. The nerve endings, deadened by cocaine, were not irritated, and consequently nausea and vomiting were diminished and the struggling and suffocation lessened to a marked degree. In the past six months the author's experience with this procedure had been most satisfactory. In children above fourteen years of age, he was in the habit of operating oftener under cocaine anæsthesia than under general anæsthesia, because at this age the patient commonly preferred the pain and a second operation to the disagreeable effects of a general anæsthetic.

From the Standpoint of Hæmorrhage.—Dr. Irving E. Kimball said that, in 350 adenoid operations done in twelve years, he had not seen either primary or secondary hæmorrhage of sufficient gravity to give anxiety. In all but four of the cases ether had been the anæsthetic employed. Unfortunately, this immunity from hæmorrhage had not been the experience of all. The modern methods of doing this operation were perhaps responsible for the increasing tendency to undue hæmorrhage. He was inclined to think this was because an effort was made to do the operation hurriedly. In the early years of his experience it had not been uncommon to take thirty minutes for the operation. No one instrument would always be sufficient. The forceps was not to be despised. Careful inquiry should be made into any family hæmorrhagic tendency. The patient should be kept in bed and under observation for twenty-four or forty-eight hours after the operation. It was also well to keep the patient under one's immediate observation for a short time after operating.

From the Standpoint of Histology.—Dr. Norval H. Pierce said that adenoids were a hyperplasia of tissues normally present. This hyperplasia should be looked upon as pathological only when it interfered with the functions of other parts or the part itself became secondarily diseased. These growths were of two great varieties, the diffuse and the stalactite. The surface might be either coarsely granular or nearly smooth or more or less fissured. The ciliated columnar epithelium was cuboid or pavement-shaped in places, owing to pressure. Beneath this epithelium was a delicate basal membrane. The principal part of the mass was composed of lymphoid nodes identical with the solitary follicles of the intestine, and a reticulum holding together these nodes as well as the follicles which opened on the free surface of the mucosa. Subsequently the lymphoid nodes become atrophied by pressure from contraction of the maturing embryonic connective tissue. These growths were frequently affected by tuberculosis and other infections.

From the Standpoint of Pathology.—Dr. Charles W. Richardson, of Washington, classified adenoids into two groups, viz.: 1. A hard, or fibrous, type. 2. A soft, or gelatinous, type. The consistence seemed to depend not so much upon the age of the patient as upon the character of the histological elements. The most frequent situation was in the vault above the pharynx. He had never met with these growths around the orifices of the Eustachian tubes. The growths were composed of delicate connective tissue rich in lymphoid cells and blood-vessels. By collecting the cases from literature it had been found that 45 out of 905 cases, or about five per cent., showed tuberculous invasion. It could not be denied that in children of a certain type there was a strong tendency to the development of adenoids, and it was probable that this was the last evidence of some constitutional vice, such as syphilis, tuberculosis, or the result of an injudicious marriage.

From the Standpoint of Operative Procedures.—Dr. Joseph A. White, of Richmond, said that he had operated a good many hundred times himself, and yet, no matter what method he had adopted, he never felt satisfied that he had thoroughly removed all the growths. So long as bleeding followed a gentle use of probe the space was not free of adenoids. Some adenoid growths resembled a bunch of worms; some were conical with the apex pointing downward; others were flat and cushion-shaped and kept up a constant discharge of mucus; others still were composed of two lobes with a deep fissure separating them. He could not see how the forceps could be discarded entirely. While the curette was the main reliance, no curette could clean out the space completely, particularly the masses on the sides in the vicinity of the Eustachian tubes. For the removal of these he used the forceps. He was in the habit of operating under general anæsthesia in children, though doing so with fear and trembling. He was accustomed to use a palatal retractor of his own devising, and while this was in position he examined the space thoroughly before doing an operation. This was entirely feasible in children over five years of age; with younger ones he had to depend solely upon the examination with his finger. It was ordinarily possible in adults to see the vault satisfactorily, but there were many cases in which such a view could not be obtained without the use of this device. It had been invaluable to him and to others who had learned to use it. His experience had been that it was necessary to be trained to use this little instrument to advantage. The instrument was exhibited. It had been his experience that when the operation was not thoroughly done the patient would be annoyed afterward with considerable discharge in the pharynx. He had seen one operator do marvelous work in the postnasal space with the snare, but personally he could not do this, and, indeed, the majority of operators depended upon the curette, using also the forceps. Occasionally he had made use of the galvanocautery to remove small fragments not easily removed in any other way. Without anæsthesia, the only position was with the patient sitting in front of the operator. When anæsthesia was employed, the child was anæsthetized with the head down. As soon as it was under the influence of the anæsthetic he inserted the mouth gag, the child's head hanging over the chair. He was so afraid of general anæsthesia in children that he operated under cocaine alone whenever possible, and rarely used profound general anæsthesia.

From the Standpoint of After-treatment.—Dr. Frederick C. Cobb, of Boston, said that if the operation was thoroughly and carefully done, there was seldom any sepsis. It was generally sufficient to keep the child quiet for a day or two. He had occasionally noticed that the operation had started up an old middle-ear disease. He had tried at one time sprays to keep the parts clean after the operation, but had abandoned them, feeling that with a proper procedure they were unnecessary. He had only once been called upon to treat hæmorrhage, and in that case the bleeding had subsided under the use of simple astringent sprays applied to the nose and nasopharynx. It had come on three days after the operation.

Dr. A. G. Root said that in young children, particularly if there was any disorder of the kidney, he preferred chloroform. Deaths from chloroform anæsthesia were still but little understood. It was assumed by those who had studied this subject that the deaths that had occurred from chloroform anæsthesia were probably the result of an enlarged thymus gland. The exact pathology was, however, not well understood. It was often necessary to keep the tongue well forward, yet the application of a forceps to the tongue seemed to him simply barbarous. It was much better to pass a stout ligature through the tongue, as this gave complete control, did not leave the tongue sore afterward, and did not inflict traumatism which might eventually lead to the development of epithelioma. He was one of those who believed the forceps could not be discarded. An instrument which had not been mentioned in this discussion was one called an adenotome, and, in his hands, it had proved of considerable value. It was easily used, and would sometimes take the place of the forceps. It seemed to him that septic conditions were apt to follow invasion of the postnasal space, and hence an effort should be made to keep this part clean.

Dr. Price Brown expressed his faith in chloroform, never having used ether in these cases. In using chloroform there was a certain definite small rate of mortality. In a practice extending over a quarter of a century he had not seen a fatal case from chloroform, and, while it might occur to him at any time, such an accident would only have the effect of making him more careful in its administration. This anæsthetic should be administered drop by drop. In two instances he had seen serious effects from pouring somewhat larger quantities on the napkin at a time. Regarding instruments, he would say that he never used the forceps, finding that he could accomplish the desired result by the proper use of curettes of various sizes and of the requisite sharpness. In the side spaces he could remove the fragments easily with his finger-nail. He had at one time tried a forceps, but had been disappointed with its action.

Dr. Richards thought the selection of instruments and of the patient's posture was a matter of individuality. Personally, he always operated with the patient in the sitting posture and with ether as the anæsthetic. He recalled one instance in which most alarming symptoms had followed the administration of chloroform in the hands of a skilled anæsthetist, and it was not likely that he would employ this anæsthetic agent again.

Dr. W. C. Phillips said that he had always considered cocaine exceedingly dangerous in young children, and he would hesitate a long time before using it in such cases; hence it was only adding to one's troubles to go from chloroform to cocaine. He was surprised that Dr. White used the forceps for his final work; in New York the practice was to use the forceps in the first stage of the operation and finish with the curette. He did not think the posture of the patient was a matter of any importance; probably no one present had ever seen death from inhaling blood. He never thought of lowering the patient's head to prevent blood from going into the trachea, and believed that if the blood went down it passed into the stomach and not into the trachea.

Dr. F. H. Koyle, of Hornellsville, said that he had frequently made use of the A C E mixture instead of either chloroform or ether, using an Esmarch inhaler. It had all the advantages of chloroform and of ether, and none of the disadvantages of either. The chief danger from chloroform lay in the fact that it was usually administered by those who had not had sufficient experience with it. It should be administered by the drop method, the patient, if old enough, being instructed to count, and with each count one drop of chloroform be given with the Esmarch inhaler. He did not approve of the use of either the tongue forceps or the ligature passed through the tongue. It was an easy matter for the assistant to keep the jaw well forward with the thumbs placed behind the angles of the jaw.

Dr. Lewis C. Cline, of Indianapolis, thought the selection of the anæsthetic and of the instrument was a matter chiefly of early teaching and individual experience. It had been his misfortune to see a healthy child of five years die from the use of cocaine in the hands of another practitioner. The worst experiences he had ever had had been in three cases, and in each of these it had been with the first few inhalations of chloroform. He had been severely criticized for advocating the removal of adenoids without anæsthesia, but he believed it was right. The child was firmly held, and he took plenty of time in operating. He had frequently resorted to the method of removing adenoids piecemeal in both children and adults, and his patients had come back again and had the operation repeated until the removal was finished.

Dr. Thomas J. Harris, of New York, thought it hard to reconcile some of the discordant views expressed concerning anæsthetics. Speaking for the Manhattan Eye and Ear Hospital, of New York, he would say that ether was generally employed, and there had been no fatal case from it certainly in the last ten years. He had operated on quite a number of very young children, and had one fatal result. In this case an infant was recovering from pneumonia, and there seemed to be so much obstruction to breathing that he had removed with the finger-nail as much adenoid tissue as possible without giving an anæsthetic. The child was temporarily relieved, but died thirty-six hours later, apparently from some meningeal complication. No autopsy was permitted. At one time he had advocated operating only when there was much adenoid tissue present, but to-day he believed it should be removed whenever there was sufficient material of this kind present to be recognized. This was especially necessary from the standpoint of the aurist. English aurists were in the habit now of making an application of iodine or some other astringent to the nasopharynx after the operation. They thought it tended to prevent a recurrence.

Dr. M. D. Lederman recalled two or three cases in which, relying upon examination of the postnasal space with the mirror, he had decided that there was little or no adenoid tissue, so that he believed the finger was the better guide. Within the past six months he had come to use chloroform, though formerly he had made use of the A C E mixture. He operated with the child in the recumbent posture when chloroform was used, without letting the head hang down. He had never thought it necessary to resort to profound anæsthesia. He began with the forceps, and followed this with the curette and the finger. If there was a roughness of the vault after the operation, it was certainly well to apply a solution of iodine.

Dr. R. C. Myles said that at the last meeting he had had occasion to remark upon the danger of drawing deductions and conclusions from personal experience alone, because, in comparison with the grand total, individual experience must sink into insignificance. Having had a fatal case from anæsthesia, he had learned privately of a number of other fatalities—so many as to show conclusively that statistics on this subject were absolutely false and unreliable. His patient, a man thirty-seven years of age, was suffering from nasal stenosis and a large mass of lymphoid tissue in the rhinopharynx. He was compelled to sleep sitting up in a chair. Several attempts were made to remove the growths under cocaine anæsthesia, but the patient resisted so violently that the operator was forced to discontinue his efforts. The patient was apprehensive and extremely nervous. An expert gave nitrous oxide gas, which the patient took very badly; then ether was employed. The anæsthetist failed to get the man thoroughly under the influence of ether, as he would become very dark and purple and cease to breathe. He was placed, face downward, over the edge of a table, a gag was introduced, and the forceps was rapidly introduced two or three times and withdrawn with pieces of tissue from the rhinopharynx. Hæmorrhage was moderate. The patient suddenly stopped breathing and became completely relaxed. Tracheotomy was performed and artificial respiration and oxygen gas were employed diligently for more than an hour without any revivifying effect.

The speaker knew of an institution in which a great many adenoid operations were done on children, and done very rapidly without anæsthesia, by the use of a specially devised antero-posterior cutting curette, sharpened specially for each operation. He knew of no other instrument that would remove such large masses from the nasopharynx. Any one who was not expert, both with the forceps and with his left forefinger, should not introduce a forceps into the rhinopharynx. If the forceps was used without the guidance of the finger, and pieces were removed and then examined with the microscope, it would be found that many of these fragments of tissue should have been allowed to remain in their natural position.

Dr. Sargent F. Snow, of Syracuse, said that he had used bromide of ethyl in fifteen cases, and with results that had pleased him. The desired anæsthesia had been induced, and the patients had been awakened promptly, so that they could spit out the blood. He used a small quantity of the bromide, six to eight drachms, taken out of an hermetically sealed tube.

Dr. S. MacCuen Smith, of Philadelphia, said he had used bromide of ethyl in two or three cases, and in each one it had been necessary to perform artificial respiration. The anæsthetic had been administered by a gentleman familiar with its use, and he had given it for Dr. Montgomery, on whose recommendation the speaker had tried it. He had had some experience with anæsthesia induced by the passage of oxygen gas through chloroform. So far as he had observed its effects, they had been excellent. The color of the patient improved under its action, and it was followed by very little nausea. The chief objection to the method was the expense.

Dr. T. R. Chambers, of Jersey City, said that he had found five per cent. of the cases among children did not require anæsthesia at all. Chloroform should be administered with a mixture of tact and time. It took about fifteen minutes to get a child properly under the influence of chloroform, minimizing properly the fear and shock. Chloroform was the only anæsthetic that he employed in these cases, and he gave it to the point just beyond what was described as surgical anæsthesia.

Dr. Halsted said that Dr. Myles had well covered the ground of the lack of value to be placed on statistics of fatalities from anæsthetics. He knew, through verbal communication, of more deaths from chloroform in this operation than were recorded in all American literature. He believed that an operation of any kind should never be done under primary chloroform anæsthesia, as it was in this stage that most deaths occurred, probably because of the pain and fright added to the chloroform. To operate under chloroform in the upright or semi-upright posture was recognized by everybody as placing the patient in the most favorable condition to succumb to the chloroform. He had no fear of the slight amount of cocaine used in the nose preparatory to giving ether. The amount was exceedingly small, not comparable with the amount used in doing the smallest operation under cocaine, and the ether would offset any possible ill effects of the cocaine. One speaker had said the adenoid operation was not a painful one under a local anæsthetic. He entirely dissented from this, believing it to be one of the most painful operations, and thought the speaker referred to must have hypnotized his patients if they experienced no pain.

Dr. White said that he kept the patient's head down, not merely to get rid of the blood, but because he was using chloroform. If he were using ether he would put the patient in the erect posture.

(To be continued.)

Letters to the Editor.

FLIES AS BEARERS OF INFECTION.

Lyons, N. Y., *August 18, 1900.*

To the Editor of the New York Medical Journal:

Sir: In hot weather the garbage-barrel, the open water-closet, the soiled napkins freshly removed from infants, and the like, swarm with flies. Within a few minutes these same flies, fresh from contact with such fermenting and putrescent material, are crawling over the nursing-bottle, the edge of the drinking-cup, and every article of food that may be within their reach. It is not wonderful that summer diarrhœa, if nothing more serious, should prove intractable under such circumstances, and yet the point is not so much as thought of apparently, even by many practitioners, to say nothing of the public generally, and so no intelligent precautions are taken in a large proportion of cases.

M. A. Veeder, M. D.

"LIQUOR AMBROSIA-CURTIS."

New York, *September 12, 1900.*

To the Editor of the New York Medical Journal:

Sir: In a reprint by Fraser & Co. of an article by Dr. H. Holbrook Curtis, of this city, upon the treatment of hay fever by the "Liquor Ambrosia-Curtis," which is alleged to be a preparation of rag-weed, it is stated that the author cured one prominent and well-known patient by the injection of a sterilized infusion of rose-leaves, the lady being rendered immune thereby. Will you kindly tell a subscriber eager for knowledge the value of the introduction of a fluid supposed to contain the objectionable organism that has been rendered impotent by being made sterile, and how such a proceeding could render any one immune? The ways of bacteriology are devious and curious, but we find new wonders every day.

A Student of Medicine.

New Inventions, etc.

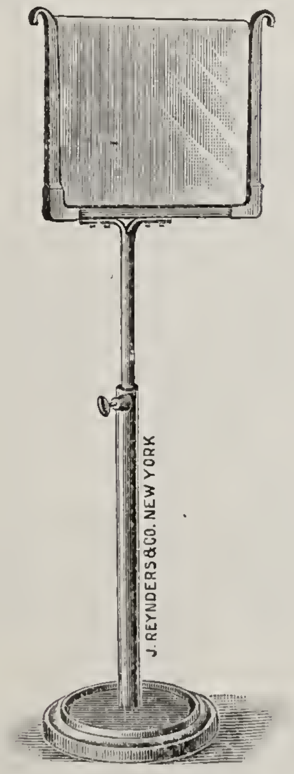
AN ANTITUBERCLE SCREEN.

By J. EDWARD STUBBERT, M. D.,

LIBERTY, N. Y.,

PHYSICIAN TO THE LOOMIS SANITARIUM.

Having had my attention called to the dangers to which physicians are exposed in treating tuberculous throats, some time ago I had made by J. Reynders & Co. an adjustable glass screen, to be placed between the patient and the physician, to prevent the inhaling by the physician of the return sprays from the patient's throat, as well as the sputa involuntarily ejected by the patient when local applications are made.


J. REYNDERS & CO. NEW YORK

It will be seen from the accompanying cut that the rod upon which the frame of the glass rests is placed nearer the right-hand side, so as to allow the operator to reach around the screen, thus not interfering with the accuracy and delicacy of manipulation. The screen can be adjusted at any required height; the base is heavily weighted to prevent its being displaced by contact with the feet of the patient or physician.

Miscellany.

A Medical Greek Letter Fraternity.—The Cleveland Lodge of the Ustion Society has been incorporated at Columbus, O. The incorporators are George Warren Spence, Benjamin Bruce Kimmell, Pulaski Brant Roper, C. M. Thurston and Adolphe B. Schneider. The society is an organization of medical students and graduate physicians for the advancement of the medical and collateral sciences and of good fellowship. It is fraternal in character, like the Greek letter societies. There are about forty members of the Cleveland society, and the incorporation has been effected to give the organization a better standing and to aid its aims.

Diagnosis Extraordinary.—Dr. George R. Patton (*Northwestern Lancet,* August 15th) in a paper on The Mind as a Dynamic Force, tells the following amusing personal story:

"While I was in California recently a friend mentioned that an intelligent relative of his was being treated by a celebrated Chinese doctor. This relative claimed that Chinese physicians were better than our own; that they had devoted 5,000 years to medicine and had thus become so learned and skillful that they could tell all diseases without asking a single question, simply by feeling the pulse. Out of curiosity I visited this physician, ostensibly as a patient. Without so declaring myself, he knew intuitively that I came to consult him. Without asking any questions he placed his finger upon my right wrist, communed with himself a few moments and then gravely informed me that I had thirty-seven diseases: some in the blood, some in the brain, some in the kidneys, some in the liver and many others in the heart and lungs. He said it would take sixteen different herbs to cure me. He volunteered the statement that he could detect 6,000 diseases by the pulse alone, and that he used 400 herbs in the treatment of the various diseases. Upon his request I examined his portfolio containing 350 testimonials of marvelous cures, wrought among English residents of California during his seventeen years' practice on the coast. Many of them were from parties of intelligence and eminence, and were so extraordinary that nothing short of their being attested by numerous witnesses of unimpeachable veracity, could satisfy one of their truth. Now, permit me to state that I have no pulse in the right wrist, the pulse being congenitally absent; but through it he made the pretense of locating so many diseases. This, doubtless, is the form and character of medical practice in China among the native Chinamen and probably has been for many centuries among a population of 400,000,000. Is not the logic from the above facts irresistible, that in China the native physician cannot tell one disease from another, and that all his work is simply nonsense and guess-work?"

The Suppression of the Smoke Nuisance in Cleveland. Smoke as a menace to human health and life was discussed at the meeting of the Palmar Arch at Cleveland, O., recently, and a committee of the members was appointed to investigate and cooperate with the city authorities for the suppression of the smoke nuisance. The Palmar Arch is composed of prominent physicians, and one of the rules of the organization is that the names of those who discuss matters brought before the organization at its monthly dinners shall not be made public.

Hospital Endowments and Buildings.—E. W. Atwater, of Batavia, N. Y., has pledged $200 to the building fund of the Woman's Hospital, provided that at least $10,000 is secured in cash or good pledges.—A fourth story has been added to the new Iowa Methodist Hospital, of Des Moines, Ia., and the institution will be ready for the reception of patients by November 1st. An elevator is to be placed in the building, and extra lights, both gas and electric, furnished for all apartments.—The La Crosse (Wis.) Lutheran Hospital is to be completed, sufficient funds having been raised.—Another improvement in the shape of new fever wards is to be made at the University Hospital in Philadelphia. The drawings show an attractive structure two stories high, to measure 57.6 by 127 feet. The interior will be finished in quartered white oak.—The State board of charities and correction, in session at Jefferson City, Mo., has recommended the construction of a better hospital in the State penitentiary and the establishment of a quarantine department where convicts exposed to contagious diseases may be received and kept until danger is past.—The additional story to the Virginia Hospital, at Richmond, Va., is almost completed, and the contractor began last week to lay the foundation for the new building to be added to this institution. This new building will be several stories in height, and about one hundred feet in length, and will contain the surgical amphitheatre, wards for charity patients, etc. It will be constructed according to the most modern ideas. This new building will greatly increase the clinical facilities of the University College of Medicine, and its estimated cost will be considerably over $30,000. This is the third addition to the plant of the college within five years, and the buildings and the improvements now represent nearly $100,000.—It is expected that the work of remodeling the Charles Crocker residence at Seventh and F streets, Sacramento, Cal., for the new Railroad Hospital, will be completed by the 1st of October. When the hospital is completed it is said that it will be one of the finest institutions of the character on the Pacific coast, as it will be equipped with all modern appliances.—Among the institutions which received bequests of $5,000 each from the estate of George D. Sweetser, of Sweetser, Pembroke & Co., are the Women's Hospital of the State of New York, the House of Rest for Consumptives at Tremont, N. Y., and the Skin and Cancer Hospital.—Mrs. Henry Knickerbocker has contributed $100 to the Saratoga (N. Y.) Hospital.—Work has begun in earnest on the Stillman Infirmary at Cambridge, Mass., near the Cambridge Hospital. The building will be practically a branch of the Harvard Medical School. It will be of brick and stone, and will stand four stories high. The money for the infirmary was presented to the college.—The plan of construction for a new hospital at Rochester, N. Y., which was formally approved by the State Commission of Charities, was found at a recent meeting of the board of supervisors of that city to be entirely too expensive. Owing to the increased cost of building material and to unexpected changes in the plans, the estimate was run up to $150,000. The last report presented in June favored an addition to the present building to cost about $50,000 and this is the proposition on which the committee will stand.—The foundations of the new Asbury Hospital at Minneapolis, Minn., will be completed by October 1st at a cost of $10,000. An effort will be made to put up the walls and roof, which will cost about $50,000, $25,000 of which is on hand. It is believed that something will be done toward raising the money at the State conference in October.—The new operating rooms of the Mater Misericordiæ Hospital, at Sacramento, Cal., have been formally opened. The operating wing, in addition to the operating room proper, has the new customary anæsthetizing, sterilizing, storage and preparation rooms.—Articles of incorporation for the new Eleanor Moore Hospital at Boone, Iowa, have been filed. The authorized capital stock is $25,000, divided into shares of $25 each. Stock is non-assessable. The officers of the corporation will be a president, secretary, vice-president and treasurer. Work will commence on the new hospital at once, and if possible the building will be completed this season.

Diphtheria in the West.—Diphtheria has made its appearance in Michigan, Wisconsin and Ohio, but not to an alarming extent, while in the East its ravages have been greatly lessened of late. In South Bend, Ind., the cases aggregate one hundred and forty-four.

Scarlet Fever in Kentucky.—All precautions are being taken to prevent the spread of scarlet fever at Harlan, where several deaths have already occurred.

Vaccination and Compulsory School Attendance.—Judge Fanning has handed down an opinion at Towanda, Pa., on vaccination and compulsory education, based on the action of the commonwealth against E. L. Smith to recover the penalty for the non-attendance of his children at school. The judgment in favor of the commonwealth was reversed, the decision holding that the vaccination law is not mandatory and that Smith did all that the law requires when he sent his children to school, while refusing to have them vaccinated.

New York State Deaths for July.—The monthly bulletin for July, issued by the State board of health, shows the number of deaths to have been 11,641. There were 856 deaths from accident and violence, five occurring from lightning, all in rural localities; 152 deaths were caused by sunstroke. The State is free from smallpox.

New York State Normal College.—The medical college building of the State normal college at Albany has been renovated and put in first-class condition for the next term, which will begin on September 25th. The introductory lecture will be delivered in the amphitheatre at noon by Professor H. C. Gordinier, M. D., of Troy. The four years' course is now in full operation at the college. Professor Tucker anticipates a larger entering class than that of last year, and in fact larger than in any previous year. The course of study is the same as last year, when the four years' course was begun. The principal changes on the staff from last year are: Andrew MacFarlane made adjunct professor of medical jurisprudence and physical diagnosis. Last year Dr. MacFarlane was clinical professor of physical diagnosis and lecturer on medical jurisprudence. Dr. Arthur G. Root is made clinical professor on diseases of the throat and nose.

The Physicians' Protective Association.—The annual meeting of the Physicians' Protective Association was recently held at Detroit and the following officers elected: President, Dr. Guy L. Kiefer; vice-president, Dr. D. L. Walmsley; secretary, Dr. A. W. Ives; treasurer, Dr. S. H. Knight; directors, Dr. E. L. Shurly, Dr. Otto

Lang, Dr. L. J. Lennox, Dr. F. L. Newman, Dr. Edwin Knill, Dr. George E. Frothingham, Dr. W. F. Metcalf, Dr. Paul Dulitz and Dr. E. S. Sherrill. The reports presented by the different officers showed receipts far in advance of current needs and that the organization was in a flourishing condition.

Professorial Changes at St. Paul University.—The executive board of the medical department of the university of St. Paul, Minn., has made several additions to the corps of instructors. Dr. Arthur T. Mann, of Minneapolis, was elected assistant in clinical surgery; Dr. David Lando, of St. Paul, and Dr. Walter Ramsey, of St. Paul, were elected assistants in clinical medicine.

A Physician's Golden Wedding.—Dr. and Mrs. William B. Dixon celebrated their golden wedding anniversary recently at their home, at Frankford, Pa. They were the recipients of a number of gifts, many of which were of gold. Their children and grandchildren stood by them while they received the guests. Of their seven children six survive. They have also six grandchildren.

A Physician Compromises a Will Contest.—Dr. M. M. Shearer, of Santa Rosa, Cal., has filed a dismissal of his contest over the estate of the late Congressman William A. Piper. It is said that the basis of the compromise was $20,000. Dr. Shearer was a cousin of the deceased millionaire and claimed to have been bequeathed $100,000.

Lepers in the Philippines.—It is estimated that there are 30,000 lepers in the Philippine Archipelago, mostly in the Visayas Islands. The Spaniards, during their occupation of the Philippines, made no attempt to segregate these unfortunates. In a recent inspection by the health department officials at Manila 100 lepers were found concealed in houses, while a large number, getting wind of the proposed inspection, had fled. The Government now proposes to select some place where a leper colony will be established similar to that of Molokai. A board of officers, consisting of Major Louis M. Maus, surgeon, U. S. A.; Captain George P. Ahern, Ninth Infantry, and Captain W. E. Horton, are selecting a suitable site for the leper colony.

The Outcome of the Compulsory Vaccination Trouble at New Bedford.—Dr. Joseph P. St. Germain, of New Bedford, Mass., a physician employed by the board of health of that city, was summoned to court recently to answer a charge of assault. It was alleged, as stated in our issue for September 15th, that he had vaccinated a five-months-old child without the consent of the mother. It was, however, proved that while the latter had expressed her objection, she had bared the infant's arm in preparation, and the doctor was discharged.

An Epidemic of Dysentery at Yocumtown, Pa., prevails in virulent form, and within three weeks seventeen persons have died from it. Local physicians have summoned outside help, but thus far have been unable to check the disease.

Unsanitary School Buildings.—The fact that some of the principal school buildings of Atlanta, Ga., are in a very unsanitary condition has been discovered by the board of health of that city, which visited them at the request of the board of education. Upon both sides of the city the board discovered buildings in which the sanitation was very bad. It is said by those who have investigated the matter that there is no censure to be placed upon the members of the board of education for the condition of affairs. The fault is believed to lie with the system.

A Medical Missionary Safe.—Word has just been received of the safety of Dr. E. R. Jeliona, of St. Paul, Minn., medical missionary in China. He had not been heard from since May 6th. It was feared that he had been killed by the Boxers. He was near Pekin and recently got to Shanghai with a guard of American soldiers. He has sailed for this country and expects to reach here about October 1st.

Denver University Medical College.—The twentieth annual session of the Denver University Medical College has begun. During the past summer the anatomical department, as well as the laboratories of bacteriology, pathology, etc., have been provided with new and improved apparatus. A number of citizens of Denver have started the endowment of the laboratories at the behest of Dr. E. C. Rivers, dean of the college. Clinical work in the college dispensary has been amplified and strengthened.

Tuberculosis Declared an Infectious Disease in Iowa. The Iowa State board of health has placed tuberculosis on the list of infectious diseases and recommended that persons afflicted with it and infected premises be dealt with accordingly. In a pamphlet just issued are numerous suggestions and instructions for dealing with the disease.

A Finnish Woman Doctor in Calumet, Mich.—The physicians of Calumet, Mich., are disturbed over the arrival of Miss Heideman, a woman practitioner, who came from Helsingfors, Finland, four months ago. They say that the county officers should compel her to take out a State certificate, which she has not done. She says her ignorance of the English language prevents her from taking the examination, but she claims to be a graduate of the Helsingfors University.

The Medical College of Virginia.—The session of the Medical College of Virginia, at Richmond, Va., begins on October 2d. An improvement of much importance to the students consists in the new and modern seats that have been put in the lecture halls of the college. The building has also been thoroughly renovated. The only change in the faculty of the college is caused by the resignation of Dr. E. C. Levy from the professorship of bacteriology and kindred subjects. Dr. Ennion G. Williams, of Richmond, has been elected to fill the vacancy.

The Unsanitary Practices of Chinese Laundrymen Forbidden.—The following resolution was recently passed by Boston's Common Council: Ordered, that the board of health, through his honor the mayor, be requested to make such regulations as may be necessary to prevent the proprietors or employees of Chinese laundries from spraying starch or water on their work from their mouths.

The Queens-Nassau Medical Society recently held its mid-summer quarterly meeting in the hotel at Long Beach, L. I. Dr. William B. Gibson presided and Dr. James S. Cooley recorded. Dr. Walter Lester Carr, of New York, read a paper entitled Some Suggestions in the Management of Summer Diseases among Children. Dr.

C. M. Niesley, of Manhasset, read a paper on Empyema. Resolutions of sympathy were passed upon the death of Dr. J. F. Burns, of Long Island City. The next regular meeting of the society will be held at Jamaica, L. I., on October 30th.

Unwholesome Public Baths Closed in New York.—The public baths at the foot of Jay street and of Market street, New York, to the foul condition of which attention was recently called, have been ordered to be closed by Commissioner Kearny, at the request of the health board. President Murphy has also ordered an investigation of all the public baths.

Salaries for Health Officers.—A sanitary convention under the auspices of the State board of health was recently held at Ducand, Mich. In a discussion on the medical inspections of public schools Professor Delos Fall suggested that health officers of cities and villages be paid salaries large enough to permit them to perform their duties properly. He would have the health officer visit the public schools daily.

A New Examiner in Lunacy.—Judge Edward K. Emery, in the county court, has appointed Dr. John J. Birmingham, of Buffalo, as an examiner in lunacy. Dr. Birmingham is a graduate of the University of Buffalo and was highly recommended for appointment. He has qualified for the office.

A Health Officer's Bill Repudiated.—Health Officer Felt, of Huron Township, Mich., recently presented a bill to the township board for $170 for services rendered during an epidemic scare. The board has cut the bill to $70, which the doctor refuses to accept, and a law suit will probably result.

Hospital Staff Changes.—Dr. C. E. Ward has resigned from the staff of the Fitch Hospital, Buffalo.—Several changes have been made in the resident staff of the Montreal General Hospital. Dr. Von Eberts remains as superintendent and the assistants are: Dr. Wilkins, Dr. Secord, Dr. Henry, Dr. Hill, Dr. Turner, Dr. Patton, Dr. Rowley, Dr. Murray, Dr. Gray and Dr. Hall. Those who have severed their connection with the hospital are: Dr. Brown, Dr. Barlow, Dr. Gilday Gordon, Dr. Fitzgerald, Dr. Patterson, Dr. Coperthwaite, Dr. Shore and Dr. Cummings.—Dr. Henry A. Christian, of Lynchburg, Va., has received an appointment in the pathological department of the Boston City Hospital.—Dr. J. C. Hancock and Dr. N. W. Hoffman have been elected to fill vacancies on the board of the Mercy Hospital, Dubuque, Iowa.—The Mercy Hospital training school will start on October 1st with ten nurses in training. A committee, composed of Dr. Meyers, Dr. Boothby and Dr. Hamilton, has been appointed to arrange the course of lectures for the nurses.—It is rumored that a change is to be made in the management of the State hospitals at Sacramento, Cal., before long, by which Dr. F. W. Hatch, now superintendent of State hospitals, will be put in charge of the Napa Hospital as medical superintendent to succeed Dr. M. Gardner. Dr. Hatch's successor in the post of superintendent of State hospitals is not yet known.—The annual meeting of the medical staff of the Lynn (Mass.) Hospital was held recently and a new departure inaugurated by the selection of representatives of the homœopathic school of medicine as members of the staff. Dr. Clarence E. Meramble, Dr. William T. Hopkins, Dr. A. P. Bowen and Dr. H. K. Glidden, of the Soldiers' Home, Chelsea, are the new physicians, and it is understood that Dr. Bowen and Dr. Hopkins practise according to the homœopathic method.—The offices of the Department of Charities and Correction for Philadelphia have been removed to the Philadelphia Hospital. The resignation of Dr. John H. Gibbon, of the hospital staff, has been accepted.—Dr. J. R. Robinson has been reelected superintendent of the Nevada Insane Asylum for four years; Joseph Harper, treasurer; James R. Allen, secretary, and Mrs. Daisy Atkinson, matron, all for two years.

Schuylkill County Medical Society.—The Schuylkill County Medical Society met in convention at Pottsville recently, with Dr. W. C. J. Smith presiding. Dr. J. A. Lessig, of Schuylkill Haven, was elected a member of the organization.

Serious Charges against a Woman Doctor.—One of the last acts of the Grand Jury of Baltimore, Md., before adjourning was the indicting of Dr. Flora A. Brewster on the charge of maintaining a hospital for the insane without a licence from the State Lunacy Commission. Dr. Brewster was presented by the Grand Jury on August 11th under Article 59, Section 28 of the Public General Laws and was released on her own recognizance. The attention of the Grand Jury was called to Dr. Brewster's sanitarium by citizens residing in the neighborhood, who stated that an insane patient had been treated in an inhuman manner.

Denver's Mortality.—The August report of the health office of Denver, issued recently, shows a total of 187 deaths, compared with 183 for August of 1899. There were 83 deaths of females and 104 of males. Of general diseases there were 31 deaths, compared with 14 in August of 1899. But of communicable diseases there were 46 deaths, compared with 60 in 1899. Deaths from tuberculosis numbered 33, while in August, 1899, they numbered 38. There were 15 deaths from accident, compared with 10 in 1899, and 3 from poison, compared with 2 in 1899. There were 15 still births.

The True Inwardness of Military Hospital Outcries.—According to the *British Medical Journal* for September 1st, Sir John Furly, the Head Commissioner of the Red Cross Commission now working in South Africa, in letters from which Lord Wantage gives extracts in the *Times*, says that he has traveled about 9,000 miles in South Africa, and in his visits to stationary and field hospitals, including those maintained as private undertakings, he has naturally noticed considerable difference; but it is not a fair comparison to make a hospital at the base the standard for those close up to the fighting line. He recognizes that the first duty of a commander-in-chief is to get his forces to the front, the second to see that they are provided with food and ammunition; and that hospitals and the transport of sick and wounded must occupy the third place. He has never expected, immediately after a battle, to find hospitals ready furnished with bedsteads and bedding for the reception of patients. There are, he says, military hospitals now in South Africa which for luxury surpass anything that has ever before been seen in war. *It is, however, unfortunate that an ideal standard has been created which cannot be maintained* throughout a campaign, carried on over such a vast extent of country as in the present war, and at a distance of more than 6,000 miles from home.

In the words which we have italicized, we conceive that the keynote of the situation is to be found.

THE NEW YORK MEDICAL JOURNAL, October 6, 1900.

Original Communications.

PREVALENT ERRORS REGARDING THE DIAGNOSIS AND TREATMENT OF "EYE-STRAIN" FROM VARIOUS CAUSES.

By AMBROSE L. RANNEY, A. M., M. D.,

NEW YORK.

That the eyes often create more or less serious *physical ills* (as well as many symptoms referable only to the eyes) is acknowledged to-day by all oculists.

The marvelous numerical growth of reputable opticians in all large cities within the past decade is proof in itself that the general public as well as the medical profession is keenly alive to-day to this important factor in inducing and perpetuating ill-health.

There are many department stores, moreover, in large cities that have lately added an "optical department" to their equipment in order to supply a demand that can no longer be ignored.

Strange as it may seem to cultivated and intelligent medical men, the purchase of glasses by the wealthy as well as the poorer classes is commonly made to-day without advice from any oculist. More harm is thus done to the eyes and general health of the community than can be computed.

In some of the larger cities of America certain manufacturers of lenses for the trade have had for years in active operation so-called "optical schools" under their management. From these so-called "schools," uneducated men (engaged chiefly in the selling of jewelry in small towns) are turned out (with diplomas) as "refractionists" to sell and prescribe glasses to their customers, after only a few days or weeks of instruction from their so-called "professors," who are too often incompetent themselves.

The entire country is being flooded to-day with such "refractionists." They often announce their calling with a conspicuous public sign; and exhibit their framed diplomas to the credulous lay public, as a guarantee of their attainments.

Signs that read as follows: "Free eye-testing done here," "Eye-testing parlors," and other words of similar import, are to be seen in this city on every prominent business thoroughfare; in spite of laws that are strictly enforced in this State against irregular medical practitioners, and bogus "diploma mills" of a medical character.

That untold harm is being done by these men cannot be doubted. The evil is sure to continue and grow until the medical profession and the general public at large are made to realize the truth and importance of the following statements:

1st. The proper selection of glasses is most important from the standpoint of future health. Serious harm to the eyes (and general health as well) may follow the bad refractive work done by inexperienced people.

2d. No glasses should ever be bought without a prescription being first obtained from an oculist; not a so-called "refractionist," but one who is a medical graduate in good standing.

3d. No glasses (even when prescribed by a competent oculist) should ever be used until the correct grinding of the glass and its setting is verified by the oculist who prescribed it.

Serious mistakes are too often made in filling a prescription for glasses, even by opticians of repute. Glasses have by mistake been given to one patient that were ground for another, in my own experience; they have frequently been interchanged by accident, after being properly ground, and were thus put over the wrong eye; they sometimes get reversed in putting them into the frame, thus placing the wrong side of one or both glasses next to the eye; and many other similar or worse blunders are being constantly made by careless or stupid workmen.

Such mistakes on the part of opticians frequently reflect great and unjust discredit later upon the oculist who prescribed the glasses; may do serious harm to the patient who wears them; and lead in many ways to disturbing annoyances that could easily have been avoided.

4th. Glasses may be properly prescribed and ground and yet be so improperly set in the frame as to be worse than useless.

Almost every day some patient appears in my office with glasses that do not fit the face; causing one or both lenses to set too high or too low, or more often too wide for the eyes or too narrow.

Oftentimes extreme decentering of lenses subjects the patient to constant torture; because they act not only as a refractive correction, but also as prisms that disturb the proper action of the ocular muscles.

In such cases the oculist is very apt to be blamed for the suffering caused. He frequently loses not only the confidence, but also all further patronage, of valuable friends from such mistakes made by others; simply because he failed to personally inspect the fit of the frames given by some incompetent or careless optician.

Women naturally prefer, as a rule, to wear nose-glasses in preference to spectacle frames. It should be remembered, however, that the slightest bending of the nose-clips of such frames may produce a mal-position of one or both of the lenses; and even placing the frame upon the nose in an improper manner may also seriously modify the effect of the glasses. In patients where a high degree of astigmatism exists, it is always best to educate the patient as to the vital importance of watching the eyeglasses constantly to see if they set properly before each eye. It is almost a part of life's routine for an intelligent woman (wearing nose-glasses constantly) to have the nose-clips frequently readjusted by skillful opticians. They get so easily out of adjustment as to constitute to men a source of great annoyance, as a rule. Spectacle frames are therefore worn by most active men during business hours in preference to nose-glasses.

Some years ago a male patient, to whom I had given strong cylindrical glasses in a spectacle frame for constant use, married a year or two afterward and went West to live. After wearing his spectacles constantly for three years, he was persuaded by his wife to change to nose-glasses and discard his spectacles. One morning after putting his nose-glasses on he suddenly found himself unable to read print with or without his glasses. In great alarm he traveled over one thousand miles to see me. I found one nose-clip very badly bent. On readjusting it, the proper axes of his cylinders were restored and his vision immediately became normal. He returned home wearing spectacles, after having learned a simple but expensive lesson.

5th. No tests made with a view of finally deciding in regard to suspected errors of adjustment of the eye-muscles are of any value until the refraction of each eye is first separately and accurately measured, and if deemed important, corrected by proper lenses.

I lay the greatest possible stress here regarding this axiom! There seems to be, among the profession at large, and even among certain oculists to-day, a most unaccountable misapprehension regarding the views upon this point of those who are prominent in the investigation and correction of "heterophoria."*

For years I have printed this axiom time and time again in italics. Never for the past fifteen years has the history of an eye-case been entered upon my records without as thorough and complete an examination for refractive errors as it is possible to make. Not one case in fifty that is entrusted to my care has escaped the use of a mydriatic, whenever its employment could possibly have modified the refraction.

Furthermore, the effect of wearing glasses for refractive errors upon any apparent mal-adjustment of the eye-muscles is frequently noted by me for weeks or months (in cases that seem to justify it) before even prismatic glasses are ordered.

6th. There is no rational basis for an extreme statement that has been too frequently published by certain oculists (evidently with a limited experience in the investigation of heterophoria), viz., "that errors of adjustment of the eye-muscles are invariably due to errors of refraction."

It is full time that this prevalent error be publicly stamped as absurd, unproved, and a fallacious basis for creditable work!

In my late work, entitled "Eye-strain in Health and Disease,"† I have personally published a sufficient number of cases to convince any judicial mind of the accuracy of the foregoing comment. Furthermore, there is not a prominent investigator in this special line of eye-work (who uses modern instruments and modern methods) that cannot endorse it from his own experience.

I have personally reported at least one hundred cases *whose eyes had no refractive error even under atropine,* and yet in whom serious nervous afflictions had existed for many years from eye-strain (embracing epilepsy, headache, neuralgia, sleeplessness, nervous prostration, etc.). They were absolutely restored to health by graduated tenotomies performed upon some eye-muscle, after other methods of treatment and judicious medication had failed to afford relief. Because marvelous results in sufferers from various nervous and eye diseases are often obtained by the correction of refractive errors alone through the instrumentality of spherical or cylindrical glasses, no basis exists for argument that the eye-muscles may not also be solely at fault in other cases and require prismatic lenses or surgical relief.

I believe that the time has passed when any oculist of education and repute can with safety to his reputation make assertions before ophthalmological societies that have heretofore been made too recklessly in print and elsewhere regarding the non-existence of mal-adjustments of the eye-muscles (except in squint cases) and their supposed effects upon the general health. Many of the audience would surely to-day turn such statements to ridicule by overwhelming experience to the contrary.

I have called special attention to the six preceding suggestions, because there yet seems to be a general misimpression regarding the importance of refractive work in the treatment of heterophoria among the younger oculists, fostered, I fear, by a few of the older men who have heretofore violently opposed all scientific investigation of mal-adjustments of the ocular muscles by modern instruments and modern methods.

Not long since, while conversing with an attending surgeon to one of the largest eye hospitals of this city, he remarked to me: "Why do you not take refractive conditions into more serious consideration than you do, before deciding positively in regard to mal-adjustments of the eye muscles?" I naturally was astonished!

I asked him in reply where he got such an absurdly erroneous impression (which he assured me was more common than I perhaps supposed), and I immediately referred him to my published writings on that subject.

A criticism that can more justly be made in return by me regarding the work done in most of the eye hospitals and dispensaries, as well as in the private offices of many oculists, is this: That investigation of the eyes is too apt to be regarded as final whenever refractive conditions have been estimated by Javal's instrument or by retinoscopy, and the fundus examined by the ophthalmoscope.

The excuses that are offered for cursory refractive work in public institutions by those of the staffs who have discussed it with me, are that sufficient time cannot always be given to each patient and that the poorer classes cannot be tested under the influence of a mydriatic without depriving them of their earnings for a time.

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*A term that covers all forms of mal-adjustment of the eye-muscles, where actual cross-eye does not exist.

†F. A. Davis Company, Phila., 1897.

They argue that retinoscopy and the use of Javal's ophthalmometer is all that is practically required in those cases where the greatest precision is not sought for or demanded. A few are still inclined to pin their faith on their personal ability to estimate refraction accurately by means of the ophthalmoscope, a time-saving device, but one of extremely uncertain value as a means of estimating refractive errors with precision. All admit that the use of a mydriatic would unquestionably make confirmation of previous tests for refraction positive and final; but they state that it is unfortunately impracticable to test each refractive case in public institutions with dilated pupils and a relaxed accommodation.

But what too commonly happens after the refraction of dispensary patients has hastily and often crudely been passed upon and prescribed for!

This special class of sufferers naturally buy their glasses where they can get them for the lowest price. As a rule, they get poorly-fitted frames; and, in consequence, decentered lenses. It is seldom, if ever, that the glasses prescribed for at dispensaries are carefully verified and the fit of the frame passed upon by the oculist who wrote the formula. Seldom are these poor sufferers impressed with the importance of keeping the frames in order; to have them straightened when bent by wear or accident; to return and have the glasses verified whenever one becomes broken or slips out of the frame; to test their own vision at home from time to time (with a test card given them for that purpose); to report if any change in vision is noticed; and to be faithful in wearing all astigmatic or hypermetropic lenses not occasionally but constantly.

Is it any surprise to thinking men, that investigations made upon dispensary patients for "heterophoria" are generally deemed as unworthy of serious consideration by those who are particularly interested and are scientific workers in this field of science? Even the refractive work in public institutions is done hastily and crudely; and most of the cases are apt to be lost sight of after the first tests are made. How is it possible under such conditions to keep daily records of the eye-tests of any patient for weeks under the influence of prisms of varying degrees? How can any modifications of muscular tests (after an accurate refractive correction has been tried) be carefully noted, when the cases are seldom seen at regular intervals and not always then by the same oculist?

Where is there a public or eleemosynary institution that can show to-day for inspection, or publish for the general information of the profession, complete and full records of the eye-tests of fifty consecutive cases of any nervous disease or of asthenopia?

I take the liberty of quoting in this connection the following paragraphs from a recent contribution of mine (*Buffalo Medical and Surgical Journal,* March, 1900) relative to the eye-treatment of headache, neuralgia, and nervous prostration:

"None are so blind as those who won't see! There are many in the medical profession, to-day as in the past, who stick to antiquated methods; who unfortunately regard all innovations as either nonsensical or useless; who scoff at all facts which conflict with their pet theories and methods; who refuse to even try what they have groundless prejudices against; who talk learnedly in societies and elsewhere about the results of investigations by themselves or others that can never have been made intelligently, if at all; and who write as fluently as they talk derogatory to an important field in medicine that they have little if any technical knowledge of, no sympathy with, no experience in, and whose results (in such hands) must of necessity have been unsatisfactory.

"Every one who has worked intelligently and faithfully for years in the scientific study of the eye-muscles knows to-day that the opinion of any one on their anomalies must be of little value—no matter how great the reputation of the man—if he has neither the 'phorometer' nor 'tropometer' as a part of his office equipment, nor any records of the power of each individual muscle and the arcs-of-rotation of each eye upward, downward, inward and outward.

"There is indisputable proof to-day that 'crossed' eye toward the nose or temple—chiefly the former—may in some cases be made parallel with its fellow by simply lowering or raising one or both eyes. Such cases were not understood five years ago. They tend to-day to explain why many operations for 'squint' have, in the past, caused bad overcorrections or yielded negative results. It is known to-day that the muscle at fault in 'cross-eye' is not always the muscle that to the casual observer appears to restrict the natural movements of the eye. The cutting of the wrong muscle may sometimes give the operator who follows antiquated methods of research before operation—and the patient as well—subsequent food for reflection and a vast amount of regret.

"The sad results, viewed from the standpoint of suffering humanity, that are entailed by indifference and prejudice in men of scientific reputation cannot be estimated.

"By giving expression to others of their opinion concerning what they have not properly and patiently investigated themselves or will not see, thousands of sufferers are doomed to a life of misery."

How can the refractive work done in public institutions (presumably more or less imperfect for reasons previously given) be of value in determining the effect of the glasses prescribed upon the ocular muscles? I have personally encountered in the rooms of such institutions large, fat, round-faced adults wearing glasses in frames that would fit a child, and hatchet-faced men and women with spectacle-frames on that would fit a giant; yet, I have seen such decentered lenses passed upon by the oculists in charge without one word of comment or of disapproval.

Conclusions.

The following axioms relate to the modern methods of diagnosis and treatment of "eye-strain" and are vital to the best results:

1. All errors of refraction (manifest and latent) should first be very accurately determined, and as far as possible corrected for both distant and near points.

2. A mydriatic should be employed before suspected latent refractive errors are finally decided upon. Exceptions to this rule of procedure are rare.

3. The ophthalmometer of Javal should first be employed to detect and measure corneal astigmatism. Subsequently cylindrical trial lenses should be employed to verify the instrument of Javal or to detect astigmatism of the lens.

4. Neither retinoscopy, trial lenses, nor the ophthalmoscope are positive and trustworthy in estimating "latent" refractive errors. The former is probably the best of the three in skillful hands; but serious errors may be made even by a competent retinoscopist.

5. A marked difference in the refraction of the two eyes should be corrected by proper lenses *at all times and for all points.* This is vital to good work on eye-muscles as a preliminary step.

6. Cylindrical glasses should preferably, but not necessarily, be set in spectacle frames, in order to lessen the danger of alteration in the axis of the cylinder.

7. No glass prescribed should ever be worn by a patient until they have been inspected and verified by the oculist who prescribed them.

8. The frames selected by the patient or optician should always be inspected by the oculist with care to guard against decentered lenses. Each pupil should accurately correspond to the centre of the corresponding lens. In children, the frames may have to be changed from time to time, on account of the growth of the head and face.

9. Patients should be personally instructed by the oculist to observe any decentering of their own lenses, that often occurs from bending of the frames or noseclips; also to personally test the vision of each eye separately from time to time (by means of a test card) to see if the refractive correction remains perfect.

Such education of the laity unquestionably takes much time and trouble; but it pays in the end by giving the patient valuable information that may prevent relapses of some previous nervous- or eye-disturbances.

10. Patients should also be cautioned by oculists to always have their lenses verified whenever they fall out of the frames and are replaced, or whenever a lens gets broken and a new one is made.

The stupid blunders that are not infrequently made by jewelers and opticians are more apt in this way to be detected early; and the oculist (who is most apt to be held accountable for the distress caused by others' blunders) may hold the patronage of his patients longer by timely words of caution.

11. All tests made to determine either the power of individual muscles of the orbit or the presence or absence of equilibrium of the ocular muscles, are of no positive value until all errors of refraction are determined and properly corrected by lenses.

12. The first "muscular tests" made upon any patient by the oculist should be recorded as revealing only the "manifest" muscular errors (in contradistinction to "latent" muscular errors); and these tests should invariably be made with the proper lenses placed before the eyes of the patient to correct refractive errors, if any exist.

13. The "manifest" muscular errors (revealed at the first examination) should never be regarded as possessing much clinical importance, except as possible pointers toward some special type of heterophoria and a guide to the oculist in searching for "latent" heterophoria.

Nothing indicates so clearly the inexperience of the absolute tyro in the investigation of "eye-strain" as to hear and read the statements of oculists (often men of distinction in other lines of ophthalmology) that they "found only one degree of some anomaly," that "this defect was too insignificant to be considered seriously," and other similar expressions formed after only one interview with a patient suffering from some form of "latent heterophoria." Such expressions make experienced men wonder and laugh!

14. The most positive and uniform standard of power in any of the ocular muscles (when studying some puzzling case of suspected heterophoria) is *the normal power of abduction.*

Whenever the abduction falls below 8°, latent esophoria* may safely be suspected; whenever it exceeds 8°, exophoria is apt to be present—although genuine exophoria† is less common than most oculists seem to suppose.

Too much stress cannot be laid upon this point, whenever an oculist is called upon to interpret the records of muscular tests in any individual case.

15. A marked difference in the *power of sursumduction* on the two eyes is always to be regarded as a suspicious sign of hyperphoria.‡

16. It is usually wise to follow up suspected latent hyperphoria with vertical prisms, prior to any investigation of apparent anomalies of the internal or external muscles, whenever hypo-esophoria or hypo-exophoria seem to exist.

Manifest or latent anomalies of the vertical muscles in the orbit should be investigated first, as a rule, and rectified before coexisting anomalies of the lateral muscles are treated. There are exceptions to this rule of procedure, but it is a wise one to follow in most cases.

17. Whenever the refraction of a patient requires the constant wearing of glasses to correct it, the investigation of heterophoria by the wearing of prisms is most easily made through the aid of lorgnette frames that can be attached to spectacled frames by means of small hooks.

I keep a large assortment of such frames as a part of my office equipment, with different bridges and interpupillary distances, so as to fit almost any form of spectacle frame. My office stock of prisms are so made as to be interchangeable and to fit all of my office frames.

18. Operative procedures upon the eye-muscles should never be too hastily performed. It is vitally important,

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* A tendency of the eyes to deviate toward the nose.

† A tendency of the eyes to deviate toward the temples.

‡ A tendency of one eye to assume a higher plane than its fellow.

to insure the best results in any case, that the effects of accurate refractive correction (and possibly of prisms also) be noted for a time; and that repeated muscular tests be made in any case of heterophoria before any surgical steps for its radical correction be advised or undertaken.

It usually takes time, patience, experience, modern instruments and much good common sense to successfully solve a complex eye-problem and to rectify an eye-condition that may be causing eye-disturbances, eye-disease, or nervous derangements.

345 Madison Avenue.

SOME OBSERVATIONS UPON SYPHILITIC MANIFESTATIONS IN THE OPTIC NERVE AND RETINA; INFLAMMATORY MANIFESTATIONS.

By PAUL TURNER VAUGHAN, B. Sc., M. D.,
HOT SPRINGS, ARKANSAS.

(Continued from page 546.)

During the past year four cases of papillitis have come under my observation, but in only two instances was the inflammation of the optic-nerve ending due to syphilitic changes within the cranium. I presume that this small proportion of cases of papillitis among my one hundred cases of syphilitic eye disease is occasioned by the fact that the majority of people affected with this condition from intracranial syphilis are too ill to leave home, and consequently do not visit health resorts.

Stauungspapille (papillitis), judging from the literature upon the subject, is of much more frequent occurrence in syphilis than the primary neuritis.

In one of my cases the symptoms did not vary from the symptoms generally found in papillitis. A bilateral inflammation of the optic-nerve entrances existed; the papillæ were markedly projected forward and thoroughly infiltrated, the veins were enlarged and congested, but the arteries were practically normal in appearance. There was no opacity of the vitreous, and the retina, except immediately adjoining the optic nerve, was not involved. The macular region was normal. There was concentric contraction of the visual field. The man had become infected with syphilis eighteen months previously, and had taken only a small amount of medicine at irregular intervals. The only cerebral symptoms indicative of syphilis were occasional intense headaches and a constant desire to sleep. He said that previously to six months before he was not affected in this manner, and that at about the same time that this symptom appeared he began to have trouble with his eyes. Dercum (*Nervous Diseases by American Authors*. Philadelphia, 1895, p. 702) makes special mention of this symptom of somnolence in cerebral syphilis.

My other case of papillitis was a much more interesting one on account of the neurological features it presented.

From my notebook I take the following: Glands in neck and over body generally much enlarged; typical syphilitic pharynx—mucous membrane hyperæmic and of a dull bluish color, tonsils enlarged, and mucous plaques in several localities in mouth and throat, but principally bunched about the soft palate; nasal mucous membrane congested. Severe headaches at times, especially at night, and "occasionally shin bones ache as though they would break in two." Lately has had cramps in the leg and arm on the right side, and at times an inability to say what he wishes to express exists—the mind acts quickly and correctly, but the motor power to put in words his thoughts, at times, is absent. This symptom is transient, and lasts only for a few moments at a time. Vision in the left eye is normal, and the fundus is also normal ophthalmoscopically. In the right eye vision $= \frac{6}{8}$. The optic papilla projects markedly forward, the borders are very indistinct, and the whole papilla looks something like a chrysanthemum—has a radiating, streaked appearance; the veins are distended with blood. Macular region of retina normal, no opacities in the vitreous. Syphilitic infection occurred three years ago—a chancre appeared upon the penis, but no secondary eruption followed.

Now, in this case all the symptoms can be explained by a syphilitic inflammation and infiltration of the meninges overlying the leg and arm centre on the left side of the cerebrum, which extended down and involved the meninges overlying the base of the left third frontal convolution—the so-called Broca's zone, or convolution.

In speaking of syphilitic meningitis, Oppenheim (p. 92) says: "A symptom frequently observed is *aphasia*, at first transient and next permanent, following cortical epilepsy and monoplegia dextra of syphilitic origin. From a large number of cases such as this, which I have had opportunity to observe, two have come to autopsy. In both cases a diffuse gummatous meningitis of the left frontal convolutions and of the lower central region existed; in one case the gummatous process was most marked in the fossa Sylvii and had also extended over to the temporal convolution. In this case the aphasia was mixed and the sensory form was especially noticeable." In regard to the production of the papillitis on the right side, I could find no special local reason—there was no exophthalmia or tenderness about the orbit to indicate an orbital causation, so I presume it must have been produced by the increased intracranial pressure pursuant to the meningitis.

Of the four theories relating to the production of papillitis in intracranial disease, advanced by von Graefe, Schmidt-Rimpler, Schneller, and Leber, the one advocated by Schmidt-Rimpler appears to me the most plausible. In fact, only two of them offer any satisfactory solution of the relationship between the papillitis and the intracranial condition, and they are the ones advanced by Schmidt-Rimpler and Leber. Schmidt-Rimpler (Zur Entstehung der Stauungspapille [Neuritis optica intraocularis] bei Hirnleiden, *Archiv f. Ophthalmologie*, Vol. xv, sec. 2, p. 193, 1869; and *Erkrankungen des Auges im Zusammenhang mit anderen Krankheiten*. Vienna, 1898) maintains that the increased intracranial pressure causes an increase of the subarachnoid fluid, and that by the increased intracranial pressure this subarachnoid fluid is forced into the lymphatic spaces of the optic disc, with resulting œdema, congestion, and inflammatory symptoms. Leber (On the Connection between Optic Neuritis and Intracranial Diseases. International Medical Congress, London, 1881, and Zusammenhang zwischen Sehnervenentzündung und intracraniellen Erkrankungen, *München. med. Wochenschr.*, 1894, No. 33) agrees with Schmidt-Rimpler concerning the communication of the lymph spaces, and also that the fluid can be conveyed from the interior of the cranium into the subvaginal spaces, but contends that the fluid has phlogistic properties, and that these produce the inflammation in the optic-nerve end; he maintains that the mechanical factor has absolutely nothing to do with the production of the inflammation. I should like to know, with Schmidt-Rimpler, why, if this fluid has phlogistic properties, the intracranial opticus, the tractus, and the chiasma, all of which are bathed in this fluid, do not become diseased.

Uhthoff (p. 182), in his classical work previously referred to, has done much to throw light upon this question of the relationship existing between the intracranial complications of syphilitic origin and papillitis. He reports the result of his personal observations in one hundred cases of brain syphilis, seventeen cases of which came to autopsy, and adds the results obtained by other investigators in one hundred and fifty cases of the same disease. In his own case, papillitis and atrophy following papillitis existed in fourteen cases, and in the one hundred and fifty cases referred to in the literature upon the subject it existed fifteen times, making twenty-nine cases of papillitis among two hundred and fifty cases of brain syphilis. In eight of his own cases the papillitis was caused by a basal gummatous meningitis, but in only three instances could the meningitis be demonstrated by autopsy, which causes him to remark that most probably in some of these cases the basal meningitis was also complicated by syphilitic growths. He also is very skeptical concerning the influence of syphilitic disease upon the cerebral arteries in producing papillitis; in none of his cases, he says, is it probable that this factor was of importance. Of the fifteen cases he collected from the literature upon the subject, in eight of them (the cases of Schott, Pooley, Wilson, Pagenstecher, Paetsch, Allen Starr, Herxheimer, and Hulke) true gummatous growths existed within the cranium, sometimes originating in the brain substance itself, and at other times in the meninges. In Hulke's case the papillitis was unilateral, and at the autopsy a gummy tumor was found in the region of the sella turcica, which involved the pituitary gland, the region of the Gasserian ganglion, and the sinus cavernosus; the dura and the softened left anterior convolutions were found grown together, and the left opticus between the foramen opticum and the chiasma was twice and a half as thick as the right —from infiltration with gummatous material. In two cases basal gummatous meningitis existed, one of which was due to congenital syphilis. Schott's case was attributable to bilateral syphilitic periostitis of the orbits. In another case Uhthoff remarks that the author is inclined to attribute the papillitis to a hydrocephalus internus, although a number of changes existed within the cranium, such as osteophytes, disease of the blood-vessel walls, softenings, and moderate symptoms of basal meningitis. This same author, according to Uhthoff, reports another case in which atrophy of the opticus occurred in consequence of hydrocephalus caused by syphilis. The last three cases upon which Uhthoff remarks evidenced only syphilitic disease of the cerebral vessels and the consequences of this disease, such as softenings and thromboses.

Judging from the literature upon the subject, neither the variety nor the location of the tumor appears to be of significance in producing papillitis—sarcoma, glioma, tubercle, carcinoma, entozoa, fibroma, tumors growing from the cranial bones, as well as gummata, can produce it. Schmidt-Rimpler remarks, however, that in growths of the cerebullum, and such as are situated in the posterior portion of the cranium, the papillitis occurs comparatively early and is most pronounced. .

In three of my cases syphilitic involvement of both the retina and optic nerve occurred—in one of them eleven months, in another four years, and in the remaining one fourteen years after the primary syphilitic infection.

Seggel (Ophthalmoskopische Kennzeichen der Hirnsyphilis. *Deutsches Archiv für klinische Medicin,* Vol. 44, p. 414) makes the remarkable statement that "neuroretinitis has, as Mauthner has already suggested, absolutely nothing specific about it; it only indicates the possibility of the existence of a brain tumor, or that a gumma can be present in the brain." I admit that it can suggest these conditions to the mind of the examiner, but I also contend that the relationship in some cases is much closer than that of mere intracranial pressure. In my first case of neuroretinitis, for instance, the infection had been present for only eleven months; there was nothing unusual about the case; a mild inflammation of both optic nerves and retinæ existed, and in addition in the right eye the man was just recovering from an iritis—the attachments between the iris and the capsule had occurred only a few weeks before he came to me. There was absolutely nothing indicative of cerebral complications about this case, and he improved markedly with treatment.

I believe that the optic nerve and retina can become involved in syphilis in three different ways—first, from the direct action of the specific poison upon the nerve fibres themselves, thus producing a primary syphilitic inflammation; secondly, from a syphilitic growth, either a gumma or a syphilitic meningitis, within the cranium, thus producing an increased intracranial pressure, with its resulting papillitis or papilloretinitis, or direct extension of inflammation in case of meningitis; and, thirdly, from diseased conditions of the blood-vessels in the cerebrum, optic nerve, and retina produced by syphilis.

My second case was one in which the neuroretinitis occurred four years after infection. I found in this case, ophthalmoscopically, moderate swelling of the optic-nerve entrances and marked haziness overlying the retina in each eye. I could find nothing of a pathological nature in the retinæ, other than a decided congestion, but in the vitreous there existed the peculiar diffuse opaqueness so characteristic of retinal syphilis. Vision in the right eye was $\frac{6}{9}$, and in the left it was $\frac{6}{18}$. When I first saw the man, he was forgetful, dull, and listless, and suffered at times from severe splitting headaches. To my mind the case was one of primary syphilitic dementia with beginning involvement of the meninges at the base of the brain. After he had taken mercurial inunctions, large doses of potassium iodide internally, and the hot baths for six weeks, vision in the right eye was normal, and in the left was $\frac{6}{9}$. The opacities had cleared up and the optic-nerve entrances were normal in appearance, the left one being possibly a little more colored than the right. Four months later I could find ophthalmoscopically nothing to indicate that an inflammation had existed; vision remained the same as at the last examination. Examination of the pupillary reflex revealed the fact that the pupil of the right eye contracted to light, accommodation, and convergence, and that the one of the left reacted to accommodation and convergence, but not to light. The pupils were of the same size. The patellar reflexes were normal; coordination was excellent; there was nothing indicative of beginning tabes.

My third case was a very interesting one. Twenty years ago the man had a chancre, but paid no particular attention to it, and took no regular systematic treatment. Fourteen years later, without special premonitory symptoms, other than pain in the head, he had an attack of incomplete right-sided paralysis, associated with disturbance of vision and complete deafness on the right side and symptoms of motor aphasia. He was given potassium iodide in large quantities, and in the course of a few months all the symptoms disappeared entirely. Six years later he again began to have trouble with his eyes, associated with intense thirst and polyuria, and a recurrence of his headaches. An examination of his urine made at this time showed a small quantity of sugar. When he came under my observation, there was an involvement of the retina and optic nerve in each eye. The inflammation was a mild one in so far as the optic nerve was concerned, but in the retina of each eye there existed small, bright red, hæmorrhagic spots, and adjoining them were minute white plaques. In places the retinal vessels had whitish streaks running alongside of them.

In the macular region in the right eye there was a small hæmorrhage, with a minute spot visible by the side of it. In the left eye the macular region was normal. Vision in both eyes was $\frac{6}{18}$; with the right eye Jäger test type No. 3 could be read, while with the left No. 1 could with some difficulty be made out. An incomplete central scotoma existed in the right eye.

This case is interesting on account of a number of features—first, the length of time that elapsed (fourteen years) between the initial lesion and the inflammation in the optic nerve and retina; secondly, the neurological features connected with the case—complete deafness on the left side, the symptoms of motor aphasia, the monoplegia dextra; and, thirdly, because all these symptoms, together with the disturbance of vision, disappeared entirely with treatment. The man resumed his work, and for six years was not in the least inconvenienced by a recurrence of any of the symptoms. Not until two months ago has he again been inconvenienced in the least on account of his eyes.

Regarding the changes in the retinal blood-vessels, I shall deal with them more thoroughly when I come to treat of retinitis.

In my remaining five cases the retina alone was involved in three, and both the retina and chorioid in two.

The question whether an inflammation of the retina can occur independent of involvement of the chorioid has been discussed a great deal, but only recently has any positive light been thrown upon the subject.

Nettleship (On the Pathological Changes in Syphilitic Choroiditis and Retinitis. *Royal London Ophthalmic Hosp. Reports,* Vol. xi, part 1), from his anatomical and microscopical investigations of this subject, takes a broad view of it. He says: "Although we have been taught to believe, chiefly by Professor Förster, that the retinitis in syphilis is for the most part a consequence of the chorioiditis, and, although no doubt there are many cases where this may very well be true, I think it cannot hold good at all. But neither does it seem possible to accept the position so ably defended by Dr. Ole Bull, that the reverse is the rule, the chorioiditis being secondary to the retinitis." In Dr. Nettleship's case of retinitis, "there was a general thickening of all the layers, with but little tendency to the clumps of inflammation which characterize the chorioiditis. The thickening is not, as in renal retinitis, due chiefly to œdema; nor do we, as in that disease, find hæmorrhages or lumps of amorphous or fatty material between the fibres of the connective frame work. Although the thickening implicates all the layers, it is, in my specimens, most marked in the nerve-fibre layer, where a great excess of stained nuclei are found." Further on he remarks: "Very marked changes are seen in the arteries and minute blood-vessels of the retina, their coats being thickened and often crowded with deeply stained cells. In the very late stage of a severe and widespread case the retina was thinned, some of its layers indistinguishable, and the blood-vessels, both small and large, ensheathed in pigment and their lumen often obliterated."

Bach (Anatomische Befund von Retinitis luetica. *Arch. f. Augenheilkunde,* Vol. 28, 1893, p. 67), says, regarding his case of retinitis which came to autopsy and microscopical examination, that it is noticeable on account of two points: First, because it furnishes for the first time a certain anatomical foundation for the clinical picture of retinitis syphilitica; and, secondly, because it is an evidence that the retinitis syphilitica described by Jacobson is a primary disease of the retina—a complete independent disease of the brain-layer, and of the retinal vascular system, and that it is not a secondary affection in consequence of a chorioiditis.

In treating of neuroretinitis I have already made some remarks regarding the manner of involvement of the retina in syphilis in some cases. In two of my cases of retinitis there was nothing special to comment upon—in both instances the persons had been infected with syphilis for several years, and the only eye symptoms complained of were "flickering sensations before each eye" and a slight diminution of vision. Ophthalmoscopically, nothing of importance was discernible, other than a noticeable grayish-bluish coloration of the retina in the region of the macula and surrounding the papilla; and the fine dust-like opaqueness of the vitreous always present in retinal disturbances.

My third case of retinitis was a rather more interesting one. The man contracted syphilis eight months before, and at intervals took small amounts of antisyphilitic medicine. He said that he had been given "small white pellets" to take internally along with potassium iodide, and that sometimes he took them, and sometimes he did not—that he had never felt any effect from them. When I first saw him he had, although eight months had elapsed since the primary lesion, a typical syphilitic maculosquamous eruption symmetrically distributed over his body—both arms, the back of the neck, the shoulders, the small of his back, and both legs, on the anterior surfaces, were covered with this eruption, and in addition syphilides existed in the hands on the palmar surfaces. There was no external manifestation of disease about the eyes—they both looked normal. Ophthalmoscopic examination showed a very slight, finely divided dust-like opacity of the vitreous in both eyes, especially marked in the right; there were no pigment spots in the retina, but the retinal vessels were enlarged, and the whole retina in each eye was very hyperæmic. The optic nerves did not participate in the process, as their intra-ocular entrances were normal.

An incomplete central scotoma existed in each eye. Central vision in the right eye was equal to counting fingers at three yards, and in the left was $\frac{6}{9}$, with some strain and difficulty. I put him to rubbing mercury and bathing regularly, and for a few days there was marked improvement; but this I knew could not be due to the medicine, for he had not been taking it long enough to produce any appreciable effect. A week later I dilated the pupils thoroughly with atropine and made a more detailed examination of the fundus. In the right eye I could find nothing, other than the slight opacity of the vitreous—there was no pigmentation anywhere, or, in fact, anything discernible, to account for the diminished vision in this eye; but in the left eye a marked haze and bluish-grayish discoloration extended out toward and encircled the macula from the papilla, and in the macular region were little grayish dots. These little dots were also scattered about over an area surrounding the macula, and running along on each side of one of the arteries were whitish streaks. These observations were made with the direct method and reduced illumination.

After repeated examinations of this case I have come to the conclusion that it is similar to the cases described by Ostwald (Ueber Retinitis syphilitica, u. s. w. *Verhandlungen des vii. internationalen Ophthalmologen-Congresses.* Wiesbaden, 1888), and also that in my third case of neuroretinitis the retina was similarly affected, but in a more pronounced manner, for the arterial condition had existed for a longer time, and both the retinal and chorioidal vessels had become involved.

Seggel, in his article above referred to, makes a strong argument in favor of Ostwald's opinion that this variety of retinitis is often the forerunner of true cerebral syphilis. He remarks that many years may intervene between the appearance of the retinal affection and cerebral syphilis, thus giving opportunity in many cases for the inauguration of a treatment that will prevent the development of the cerebral disease. This is true, but I think that a sufficiently early recognition of any symptoms of syphilis and its proper treatment will also prevent this termination.

In my two cases of chorioretinitis, syphilis had existed in one for eighteen months, and in the other for eight years. In the first one of them, a fresh yellowish exudate existed between the optic-nerve entrance and the macula, and an incomplete scotoma in the visual field corresponded with it. In the other, there were old patches with pigmented borders, showing, as the patient maintained, that her eyes had been affected for several years—she said since four years after her infection. This patient was with me for four months, and during that time she had marked variations at different times in visual acuity. When she first came to me, vision in her right eye was practically nothing—she only being able to count fingers at one foot with this eye. With the left eye vision was $\frac{6}{12}$, but at the end of a week she could only read $\frac{6}{36}$, then she improved gradually until she regained what she had lost. Four of these recurrences took place while she was with me. In spite of the fact that she was taking heroic doses of mercury and potassium iodide, after each recurrence a new yellowish spot of exudation was discernible ophthalmoscopically. Finally I lost sight of her, and consequently am unable to give the ultimate outcome of the case. In both these cases I think the chorioid was primarily diseased, and the retina only secondarily. Flashes of light were complained of in both instances, and, in fact, constituted the most aggravating symptom. Of course a fine dust-like opacity of the vitreous existed in both instances.

A Physician Named for Congress.—Dr. J. C. Heading, of Academia, Juniata County, Pa., has been nominated for Congress on the Democratic ticket.

THE USE OF THE SUPRARENAL CAPSULE IN DISEASES OF THE HEART; A PRELIMINARY REPORT.

By S. FLOERSHEIM, M. D.,

NEW YORK.

In this paper I shall report my experience with suprarenal capsule in diseases of the heart. As the title states, this is to be a preliminary report, and in opportune time a full report will follow. I am greatly indebted to Dr. W. H. Bates, of New York, for the kind stimulation which he has given me, and were it not for his enthusiasm in getting the full action of suprarenal, this report might not have been brought out.

My experience with suprarenal extract in heart disease extends over a period of about eight months, in which time I have experimented with the drug in many cases on the heart in health and disease. I believe it is unnecessary to give in such a paper as this one a complete description of the heart in health and in disease, as the space allowed will not permit of such, and too long articles are discouraging. Moreover, I believe the majority, if not all, of my readers are familiar with the description, which can be found in our numerous well-edited text-books on medicine.

A résumé on the different diseases peculiar to the heart will not, I believe, be out of place. When the interior, or lining, of the heart becomes diseased, so-called endocarditis, we find, after the immediate acute attack has passed off, certain pathological lesions presenting themselves according to the seat of the disease, its severity, and the peculiar form of inflammation. When the inflammation attacks the endocardium at or near the site of the valves, it is designated as valvular endocarditis. So frequent is the latter, in fact, so high is the percentage of valvular affections which are found in endocarditis, that when we speak of endocarditis we actually mean valvular endocarditis, and they alone, with but few exceptions, give us the only signs and symptoms indicating disease of the interior of the heart.

The most frequent valvular lesion of the heart is, without doubt, mitral regurgitation, insufficiency, or incompetency. The term indirect should be dropped, as it is confusing. Next in order is aortic regurgitation.

Disease of the valves occurs in many ways: 1. From a thickening of the valve, retracting the lips of the valve, thereby preventing accurate apposition. 2. Vegetations on the edges of valves, which act in the same way. 3. Thickening of the valve, without retraction, causing an uneven edge, which prevents accurate apposition. 4. Thickening of the lower surface of the valve, so as to pin the valve down. 5. Rupture of some of the chordæ tendineæ, allowing the flap to rise higher than normally.

By far the most dangerous lesion in heart disease, I believe, is aortic regurgitation. Its danger lies in the sudden overdistention and paralysis of the heart. Aortic stenosis is the one which causes the most rapid hypertrophy of the heart. Mitral stenosis is also one not to be made little of.

Its dangers lie in overdistention of the right side of the heart, pulmonary hæmorrhage, etc. Tricuspid disease is quite rare. Normally there is a slight leakage or regurgitation at the tricuspid valve. Pulmonic disease is much more infrequent. Diseases of the heart muscle itself are myocarditis, fatty infiltration, fatty degeneration, syphilis, rheumatism, etc.

When one examines the heart and finds that it varies from the normal, the first object is to find what is abnormal. Having found what is abnormal, we ascertain how far the disease has spread, its immediate and remote dangers, its pathology, its sequelæ, and its treatment. When the action of the heart is found to deviate from the normal, it is not necessarily indicative that the heart is diseased.

There are a great many conditions which cause the heart to beat faster, slower, irregularly, stronger, or weaker. For instance, I have seen a case, in a man recovering from an attack of grippe, in which the diagnosis of myocarditis was made from symptoms elicited from an examination of the heart, which was intermittent, slow and weak. He was treated for myocarditis for about a week, with but little improvement, but, on my suggestion a full dose of a cathartic, effervescent sodium phosphate, morning and evening for two days, with no treatment for his heart, it was found that his myocarditis suddenly disappeared. His so-called myocarditis was due, to my mind, to retention of fæcal matter in the intestine, and when that was copiously evacuated, all symptoms of a cardiac affection disappeared.

When the heart is acting differently from the normal, we must always bear in mind that there are more causes than heart disease *per se* to account for the disturbance; for instance, pressure of a tumor in the brain; a foreign body, such as a bone or a shot; an abscess, an aneurysm, a gumma, hæmorrhage, and softening of the brain; irritation at the roots of the vagus; pressure on the vagus in its course to the heart; irritation of the accelerator nerves; reflex action; spinal-cord disease; medication; chronic poisoning, as with lead, copper, or arsenic; tuberculosis, anæmia, dyspepsia, constipation, etc., causing disturbance of the heart's action either by slowing or quickening the pulse rate or by causing it to become irregular.

To restore the heart to its normal condition, if possible, is to find the underlying causes and treat them respectively according to the best means of modern medicine which are at our command. When the heart is irregular or there is some disturbance in its rhythm at times, and we cannot find any evidence of heart disease, we designate the disturbance as a functional disorder due reflexly to some underlying constitutional disorder or organic disease.

The therapy of heart disease is extensive, but it is sufficient here to give only a very superficial review. When we prescribe, we must take into consideration the particular kind of heart lesion, the patient's iodiosyncrasy, his present condition, and the effect of a drug on the other organs, such as that of digitalis on the stomach. Among the best remedies, and the one that has stood the test the longest, is digitalis. The tincture is especially used, but on account of its disagreeable taste and irritant action on the stomach it is, at times, very objectionable to give and may even do harm. I have found a good fluid extract, from a reliable firm, to be better tolerated by the stomach than the tincture, and have obtained very good results from the same.

Strychnine comes next in order; then come nitroglycerin, strophanthus, sparteine sulphate, and alcohol.

Hydrotherapy is also a very efficient method of strengthening the heart if rightly employed, but it is secondary to drugs, which must always be employed, especially at the beginning of treatment.

Outdoor graduated exercise is also very beneficial, especially when taken in conjunction with hydrotherapy. For these, the Bad Nauheim, Kissingen, Carlsbad, etc., have become famous more than from the drinking waters employed. Bitters, in general, stimulate the action of the heart by reflex action on the stomach. Inhalations, as of the nitrites, ammonia, etc., do the same, acting reflexly.

Now we come to the chief subject of my paper, the action of the suprarenal gland on the heart in disease. I have tried the dry powdered suprarenal gland in many cases of normal heart, but, thus far, I have noticed no appreciable effect from the drug; but when the heart is diseased, we find a more or less marked effect, due, without doubt, to the action of the drug, on the heart muscle, and not to the imagination of the patient. In all my cases the patients' attention was directed away from their affliction.

In cases of mitral regurgitation I have found by giving dry powdered suprarenal gland, five grains in a capsule, to be chewed, within from one minute to ten minutes, the action of the drug became apparent. In one case I noted that the effects became apparent as rapidly as in fifteen seconds. The pulse grew fuller, stronger, and more regular, the contractions of the heart more rhythmical; the murmur, which was diffused and blurred, became circumscribed, and in two cases the murmur, which was slight, actually disappeared and remained absent for more than fifteen minutes, while in a number of other cases the murmur became reduced in volume, the heart sounds clearer, and the murmurs more distinct, more easily recognized and differentiated. In one case of special note, one in which I had taken a great interest, not on account of the heart disease, which was discovered by accident, the suprarenal proved to be of special value as a diagnostic help. While making an examination, I listened to the heart, and the examination elicited a murmur which I interpreted to be a slight pulmonary regurgitant murmur, but, being skeptical as to the validity of the diagnosis, and the lesion being one of the rarest, was doubtful. When I saw the patient again, the same condition presented itself, and on the spur of the moment I thought of the suprarenal gland. I administered five grains of the powdered gland in a capsule, to be chewed thoroughly, and in three minutes, on examination, the normal heart sounds became much plainer, with the rhythm improved, and, on close examination, I found that what I had thought to be a pulmonary regurgitant murmur was a beginning mitral obstructive, or stenotic, murmur. The suprarenal helped to settle the diagnosis.

THE EFFECT OF SUPRARENAL GLAND ON THE DIFFERENT LESIONS OF THE HEART.

General Effect on the Diseased Heart.—When the heart has been irregular in its rhythm, with lessened force and quality of the sounds, in many cases, suprarenal when given, has caused the heart to become more regular in its action, in others fully regular, the rhythm improved, the force quite markedly increased, and the pulse more forcible in character, being full and strong, but at the same time soft in character and "easy-going," so to speak, not the hard, laboring pulse.

Rapidity of Action of the Heart.—In some cases I have noticed a slight increase in the number of pulse beats where I least expected it, and in others where it was expected no change at all resulted or there was a slight fall or decrease. I am of the opinion, thus far, that suprarenal has little or no effect on the rapidity of the heart. I have not had occasion to try it in cases with a very rapid pulse rate.

Tonicity.—The heart seems to be markedly toned up in many cases treated, enabling it to perform its work much better and with greater ease.

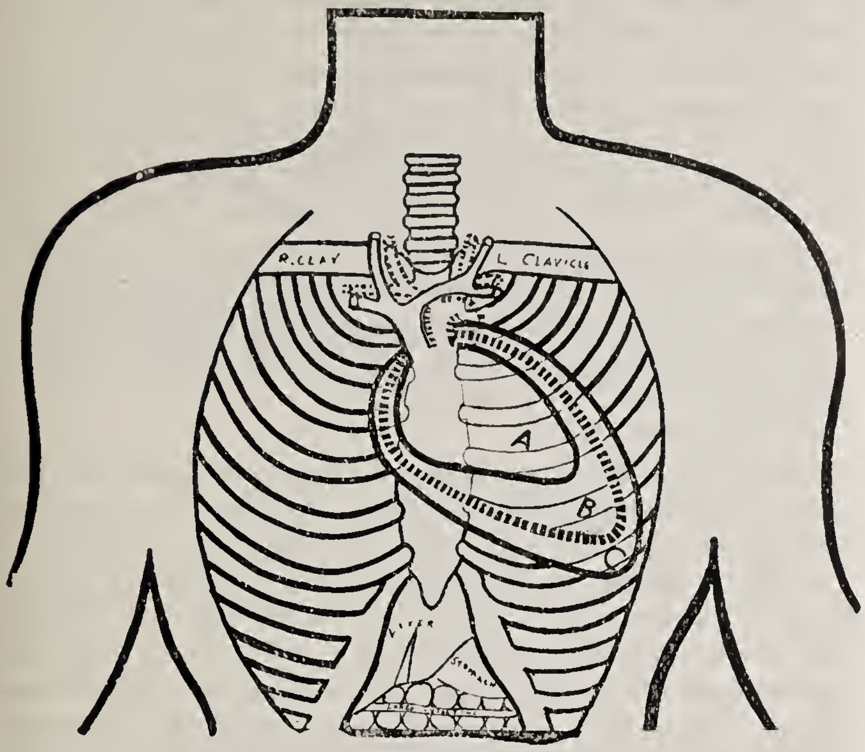
Predominating Hypertrophy.—When the heart's action is full, bounding, and regular in rhythm, no appreciable effect was noticed.

Predominant Dilatation.—When the heart is flaccid, the pulse weak, the apex beat diffused, the action of the heart fluttering and irregular, we find the most marked and beneficial effects of the drug. In two cases observed carefully by me I found fully a quarter of an inch contraction on each side of the heart after administering suprarenal; also the apex beat, which had diffused and was difficult to locate, became more localized.

A diagrammatic figure is presented on next page showing the normal heart, A. The predominating dilated heart is represented by the outline C, and between these will be found the outline of the predominating dilated heart contracted after the administration of suprarenal powder, shown in the dotted outline B.

Condition of the Heart Following the Use of Suprarenal.—After the immediate stimulating effects of the drug have passed off, the heart seems to be left in better condition than it was before the administration of the drug, especially in those cases in which the drug acted best. I observed some of the cases for over an hour after the administration of the drug, and in some of them the effects passed off in from two to ten minutes, the heart returning to its former condition.

Intermittency.—Sometimes suprarenal causes the intermittency to disappear wholly or in part, while at other times it has no influence on it whatever.



At this point I will call attention to a phenomenon which I have repeatedly observed in a certain class of patients coming under my observation for the past two years, in which time I have devoted my time to diseases of the heart and lungs. Physicians have given me reports of cases of apparent heart disease in which the pulse was not what could be called weak, but at the same time was not fair in volume, and was also irregular, intermittent, with the cardiac sounds weaker and muffled and with general distress over the præcordia, etc., in which suprarenal produced no noticeable effect. I also have had patients presenting themselves with the same signs and symptoms, and found that suprarenal produced no noticeable effect, but, as I did not believe the cases to be myocarditis, but the condition of the heart to be due to some other cause, I advised full doses of either sodium sulphate, Epsom salts, calomel, or compound licorice powder, so as to get a good cathartic effect, cleansing the bowels out thoroughly, and, on examination next day, I have found, not to my surprise, that the irregular, intermittent heart had been replaced by the normally acting heart.

This pulse should not be confounded with the myocarditic pulse, though at times it is very difficult to distinguish between them.

To such a condition of pulse as has been above described I have given the name of the "constipation pulse."

Though patients tell me that they have one or two movements every day, still there is, to my mind, a sort of "internal constipation," so called, better known as autointoxication, which condition of the whole system—the head, heart, and muscular system showing symptoms simulating dumb ague, a mild attack of grippe, or a nephritis—is relieved promptly by a full dose of a cathartic, carrying off the fæcal accumulations and preventing further absorption of toxic products.

In a recent paper (*Medical News,* March 24, 1900) Bates published the following conclusions:

"1. The internal administration of suprarenal does not affect the normal heart or the normal pulse in organic heart disease.

"2. It does not affect the normal blood pressure.

"3. An intermittent pulse becomes regular.

"4. A weak pulse becomes stronger.

"5. A rapid, weak pulse becomes less rapid and stronger.

"6. When anæmia or hyperæmia of the vessels of the face and of the extremities is present, the administration of suprarenal is followed by a return to the normal, because the increased strength of the heart beat equalizes the circulation of the blood to all parts of the body.

"7. The action of suprarenal is temporary.

"8. The extract of the suprarenal capsule is the most powerful known stimulant of the heart."

Grünbaum has studied the effects of suprarenal on the normal blood pressure, using Oliver's sphygmodynamometer, and found no appreciable rise in the blood pressure after the administration of the suprarenal.

Rapidity of the Action of Suprarenal in Heart Disease.—When the powdered suprarenal is placed on the tongue, mixed with saliva, and chewed thoroughly, I have found it to show its effects within ten seconds; at other times it has taken ten minutes. I have not seen a case thus far with a weak, irregular pulse, in which the effects of suprarenal were not manifest within ten minutes. The usual time has been between two and three minutes.

I have also found that, although the action of the suprarenal is rapid, quite often have its effects passed off as rapidly. I have also noticed in a few patients that when suprarenal is chewed, its stimulating effect is felt, and, on swallowing the thoroughly chewed drug, the first stimulation having partly been expended, we get an additional stimulation of the drug, varying in time from five to ten minutes, but this latter stimulation does not seem to be so strong as the primary stimulation.

Cases are reported in which suprarenal had a marked effect on the diseased heart, by J. Watkins (1), C. J. Mooney, J. C. Peterson, W. Schoonover, Augustus Milleg, Kinnicutt, Hultgren and O. A. Anderson, Bates (2), R. W. Wilcox and C. J. Mooney (3), S. Floersheim, J. M. Otto, Kelly, A. A. Wolfe, George B. Fowler, and others.

Oliver and Schäfer believe the suprarenal to be a powerful heart stimulant. Cleghorn has come to the same conclusion.

I use it as an adjuvant to the other heart remedies. So far, to my mind, it does not take the place of nitroglycerin, strychnine, or digitalis.

Dr. George B. Fowler* noted a case of a boy in which the use of suprarenal was added to the treatment when the usual heart remedies failed to act, and marked improvement followed.

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*Letter.

Dr. Clark also noted the case of a woman, thirty-eight years old, who had to lie abed on account of heart disease for ten years, in which the usual heart remedies failed to benefit, but on suprarenal treatment she recovered. Of all my patients, only two noticed any effect of the drug. One said that he felt the heart beats become softer and that he could breathe better, and his head seemed lighter; he felt better in a general way. The other noted drowsiness one minute after taking the drug, lasting fully three minutes.

Mitral Regurgitation.—A diffused murmur becomes more or less concentrated. The murmur is more easily recognized; the relation of it to the first sound is more readily made out. The murmur in many cases, though more distinctly heard, was decreased in volume; in two cases, the murmur actually disappeared. Murmurs which were hard and rough became softer.

Mitral Stenosis.—The murmurs became more audible, more easily recognized, and in the one case before cited suprarenal acted as a valuable aid in the diagnosis.

Aortic Regurgitation.—The murmur is not much affected, except in predominant dilatation, in which the heart is markedly contracted, when the murmur becomes more circumscribed, lessened in volume, softer, and more sharply defined in relation to the normal heart sounds.

Aortic Stenosis.—As the heart beats after the suprarenal become more forcible, the murmur becomes louder, more distinct, and sharply defined. When there is marked predominating hypertrophy, no effect of the suprarenal has been noted. Suprarenal has very little influence on aortic disease.

Myocarditis.—In two cases the suprarenal made the contractions more rhythmical, the irregular action became regular for a time and the intermittent pulse improved with the use of suprarenal, five grains every five minutes until twenty grains had been given. The effects did not last long, and the heart soon lapsed into its former condition, though, I may say, in a better state than it had previously been.

The following are a few cases which may be of interest:

CASE I.—F. G., a boy aged eleven, weak, anæmic, unable to walk much, tired most of the time, affected with epistaxis and cephalalgia, and rhachitic. He had a double mitral and a double aortic lesion, hypertrophy with predominating dilatation of the heart. The normal heart sounds were indistinguishable; the apex of the heart was at the seventh rib, three-quarters of an inch to the left of the nipple line.

Before the administration of suprarenal the pulse was 100, the temperature 99.8° F., the apex beat diffused, the heart beats slightly irregular, the force fair, at times heaving, the rhythm disturbed. I administered suprarenal, five grains, in a capsule, to be chewed, and in one minute the apex beat, on inspection, was more easily located; the heart was seen to contract fully a quarter of an inch on each side, which was confirmed by lessened cardiac dullness. Episternal pulsation was more pronounced.

Five minutes after the administration of suprarenal the pulse was 100, and the temperature 99.8° F. The heart was powerfully stimulated; the pulse was full, strong, and fully regular in action and rhythm; the cardiac murmurs were not so diffused, thereby enabling them to be recognized and distinguished without difficulty. The normal heart sounds were slightly improved in quality. The heaving of the chest with every pulse beat became markedly lessened. This was one of the patients who felt the constitutional effects of the drug, stating that the headaches disappeared, that he could breathe easier, and his head seemed lighter, his dizziness disappeared, and he "felt good" all over his body—a general toning of the system.

CASE II.—M. C., a girl aged ten years. She had had phthisis pulmonum for two years, and was in the third stage of the disease, anæmic, very weak, etc. Her pulse was 120, regular, of fair force, with the rhythm undisturbed. There were mitral regurgitation, and stenosis and aortic stenosis. There was a loud, blowing mitral regurgitant murmur, so loud as to render all other sounds almost inaudible. The heart was markedly hypertrophied, with symptoms of predominating dilatation. The apex was at the seventh rib, an inch to the left of the nipple line. There was pronounced heaving of the chest with each cardiac beat.

I gave her suprarenal, to be chewed, five grains. No effect was noticed for three minutes; then I gave five grains more, and in three minutes the diffused mitral regurgitant murmur became reduced in volume, more centralized, more sharply defined in relation with the normal heart sounds, and lessened in intensity, but still the murmur was quite loud. Not much change was noted in the other murmurs. There was contraction of the heart of a quarter of an inch on each side. The heaving of the chest with the cardiac beats was lessened. No effect of the drug was felt by the patient.

CASE III.—W. B., a boy aged eleven, myopic, very nervous, had had inflammatory rheumatism. There was a shrill mitral regurgitant murmur with beginning myocarditis. The pulse was 84, the temperature 102.2° F. Every third, fifth, or eighth beat was lost; the heart was very irregular in rhythm, and the apex beat was diffused.

I administered suprarenal, five grains. One minute after its administration, the heart became regular in its action in every respect, the mitral regurgitant murmur was considerably lessened in volume and less shrill; the apex beat was much more easily located. The effects lasted for seven minutes, with no change in the pulse rate; then every eighth, tenth, or sixteenth beat was lost; the heart contractions were slightly better after the immediate stimulating effects of the drug had passed off.

CASE IV.—Mrs. M. L., aged twenty-seven, had slight aortic stenosis, with compensation good. She was neurotic and anæmic. Her pulse was 86, of good quality. Suprarenal produced no noticeable effect. Of late she had had a tremendous amount of worry, which had resulted in attacks of pseudo-angina pectoris, which attacks were promptly relieved by administration of suprarenal.

Suprarenal, combined with nitroglycerin, was regularly administered during the period of excitement, and prevented many attacks of heart failure. Once, when the drugs were not taken for a day, an attack of heart failure was promptly relieved by inhalations of amyl nitrite.

Since regularly taking suprarenal with nitroglycerin she has had no attacks.

There have been many other cases of heart disease in which suprarenal was given with decided benefit.

References.

1. Bates, *Medical News,* March 24, 1900.
2. Bates, *Medical Record,* October 8, 1898.
3. Bates, *New York Medical Journal,* May 16, 1896.
4. Bates, *Journal of the American Medical Association,* August 11, 1900.

216 East Forty-sixth Street.

COMBINED ELECTRIZATION,
OR
GALVANOFARADIZATION.*

By A. D. ROCKWELL, M. D.,
NEW YORK.

By combined electrization is meant the simultaneous application through the same electrodes of the two forms of dynamic electricity, the galvanic and the faradaic currents.

Many years ago, I wrote as follows about this method: "In order to secure the advantages of both currents and at the same time avoid the trouble and inconvenience of employing them in succession or alternately, as is sometimes desirable, we have devised a method of using them simultaneously. To this method we have given a name which sufficiently expresses its character, viz., galvanofaradization. Whether any special therapeutical advantage arises from the simultaneous use of the two currents, we are unable to say." On account of the inefficiency of apparatus and the difficulty of utilizing the combined currents, the method was long held in abeyance, but some three years ago I was again induced to experiment with it, because of a new and improved construction which was then brought to my attention. This apparatus, with some necessary modifications, was described by me in the *New York Medical Journal* of March 5, 1898, and has since constituted a valued part of my electrical outfit.

More recently, however, still further improvements in the method of combining the two currents have been made, and in the apparatus here presented we have an almost ideal arrangement for every possible utilization of the dynamic forms of electricity.

To determine the differential indications for the use of these two forms of electricity is sometimes no easy matter. We know, indeed, that the faradaic is a current of to-and-fro motion, of constant closing and breaking, and through its vibratory action gives passive exercise to both deep and superficial tissues. I believe that the contractile fibre cells are influenced more powerfully by interrupted high-tension and high-frequency currents than by the chemical, or galvanic, current, and that there is greater stimulation of waste and repair. The galvanic current, on the other hand, with its far greater ampèrage, affects the brain, spinal cord, and sympathetic more powerfully than currents of even the highest tension and frequency. This high ampèrage gives it also a far more potent electrolytic and thermic action and a greater influence over secretion. Although the differences between the two currents, and indeed between all forms of electricity, are mainly differences of degree rather than of kind, yet, so widely do they differ in some of their physical and physiological manifestations and in their therapeutical effects, that it amounts practically to a difference in kind. It has always seemed to me, therefore, that the combination of electrical currents, so called, is quite as rational as are drug combinations. Practically, I have found such to be the case, and have witnessed some very interesting effects, physical, physiological, and therapeutical.

Physical Effects.—The transfer of substances from one pole to the other, the production of heat and the regulation of endosmose and exosmose are the main physical effects of the passage of electricity through the body. The faradaic current alone has very little effect on endosmotic phenomena which evidently depend on the chemical rather than on the mechanical properties of electricity, but the galvanic current stimulates ordinary endosmotic action in a marked degree. Add, however, to its chemical influence the mechanical influence of the faradaic current, and we get even greater stimulation of the endosmotic phenomenon than when one current alone is used. Increased heat production is also a noticeable effect of combined electrization.

Physiological Effects.—The physical as well as the chemical and mechanical effects of electricity are not, like physiological effects, peculiar to the living body.

Inorganic, as well as organic, substances are influenced by the first three, while the last takes place only by virtue of the vital properties of the body. Physiological effects cease when life ceases, and are therefore preeminently important in the study of electricity in its relation to the human body. The physiological effects of electricity, through its action on the nerve supply, are seen mainly in its influence over the circulation and on secretion, excretion, and absorption. Both currents and all forms of electricity influence the circulation and the secretory and execretory processes, and even the absorption of morbid products is in all probability accelerated by currents of low as well as high ampèrage. The average ultimate effect of electrization, is to increase the flow of blood, raise the temperature, and dilate the veins. This it does through its influence over the capillary circulation, which is regulated by the quantity and quality of the innervation that it receives. The combined chemical and mechanical effects of electricity ought, theoretically, to heighten innervation more vigorously than these effects uncombined the one with the other, and my observation and experience have fully satisfied me that the method under consideration increases the effect of the usual methods of electrization, not only on the circulation, but on those most important processes, secretion and excretion. Whether combined electrization acts with equal efficiency on the absorbents, is less easy of demonstration. Its influence over secretion becomes immediately evident, subjectively as well as objectively, while its effect on absorption is wholly objective and becomes apparent only when applications are made to fluid or solid deposits. This point is to be determined, therefore, only by the systematic study of pathological cases.

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*Read before the annual meeting of the American Electrotherapeutic Association, September 25, 1900.

Therapeutical Effects.—If it is difficult to determine the differential indications for the use, and the comparative value, of the different forms of electricity in individual cases of disease, it is still more difficult to say just to what extent and in what cases combined electrization is superior to simple, or single, electrization. It certainly will not relieve pain, from whatsoever cause, so readily as simple electrization. All forms of electricity, galvanic, faradaic, static-sinusoidal, will relieve certain forms of pain, as is well known, one succeeding where others fail, and *vice versa.* The pain that is not increased by pressure, and especially if pressure affords any manner of relief, is far more likely to be benefited by the faradaic or sinusoidal or by any of the high-frequency or high-potential manifestations of electricity, while painful parts sensitive to pressure, barring the hyperæsthesia of hysteria, are as a rule affected more favorably by the galvanic current. On the contrary, combined electrization seems to me not only to have failed in several cases representing the two conditions to which I have alluded, but to have increased rather than to have allayed pain. I can account for this only from the fact that in the impaired sensibility to pressure of the one condition mechanical effects alone are called for, while the increased sensibility of the other calls for the continuous and more sedative action of the current of chemical action uncombined with mechanical effects. But, if combined electrization possesses no superiority over single electrization in the relief of pain, I am quite sure that it has a field of its own in the treatment of spasmodic conditions. Long ago a distinguished English physician, in an article on Chorea, said: "Electricity is another agent which requires a passing mention in this place, though all that can be said respecting it is, that as yet there appears little or no reason for placing any confidence in it as a means of treatment. Whether this will always be the case, whether there are not modes of using electricity which will have the effect of quieting choreic and analogous movements, remains to be seen. I suspect that there are such modes, and that they will be beneficial, but I have not yet the facts to justify the expression of a belief on the subject."* In the light of later experience, this seems little less than prophecy. We now know that electricity does benefit chorea and other spasmodic conditions, on the same principle that it benefits neurasthenia and other functional nervous diseases, by reason of that indirect improvement in nervous force which is a part and a result of the general improvement in nutrition. Musculosedative effects are obtained in greater or less degree by nearly all of the various forms of electrization, and in a marked degree by combined electrization. Its superiority in this respect over either current alone has been clearly indicated to me in several cases of local spasm. In a case referred to me by Dr. L. Bolton Bangs the result, though temporary rather than permanent, seemed to me to demonstrate this superiority very positively.

The case was one of urethral spasm. On my introducing the electrode, its progress was arrested by a vigorous muscular contraction, first, in the middle of the urethra, and, when this was overcome, by a second spasm in the deep urethra. Steady pressure alone would successively relax these spasms after a while, but under the influence of combined electrization the spasms relaxed instantly and the electrode entered the bladder without hindrance. Neither the galvanic nor the faradaic current alone would act with anything like the celerity of the two combined.

In another case, one of spasm of the pharynx, in which neither current alone made any impression, the spasmodic action invariably yielded to combined electrization.

In a case of facial spasm of long standing, referred to me by Dr. George H. Cocks, the relative superiority of combined electrization was very distinctly shown.

For three weeks the faradaic current had been repeatedly applied by Dr. Cocks. Subsequently I myself administered the galvanic current, but with no result. Combined electrization was then attempted, and resulted in a rapid amelioration of every spasmodic symptom.

In a very interesting case of paralysis of the diaphragm I was able to satisfy myself that this combination of mechanical and chemical effects stimulated the phrenic nerve far more powerfully than either current alone, and greatly accelerated the recovery.

The symptoms of exophthalmic goître are more readily ameliorated by combined than by single electrization. If this condition is due to disease of the sympathetic, it is evident that vasomotor phenomena can be more readily controlled by the former than by the latter method. If it is due to disease of the thyreoid (hyperthyreoidation) rather than of the nervous system, here also the combined method ought to be, and is, more efficacious than the currents uncombined, in preventing toxic overproduction or in eliminating such toxine from the system.

These reflections and brief clinical reports are presented merely as tentative and suggestive, with the hope that others may be induced to record and present their experience with this interesting form of electrization. The most important point to be determined, however, it seems to me, is its relative influence over nutrition. Elec-

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*C. B. Radcliff, M. D., on Chorea, Reynolds's *System of Medicine*, 1868.

tricity, in passing through or acting on the body, modifies the nameless and numberless phenomena every moment going on in the living tissues, and indisputably becomes an aid to nutrition, no matter what the special form employed. We get these results through the complex mechanical, physical, chemical, and physiological action of electricity, all of which are united in highest perfection in the combination of the currents.

25 East Forty-fourth Street.

IMPLANTATION OF AN ARTIFICIAL VITREOUS; "MULES'S OPERATION."

By MATTHIAS LANCKTON FOSTER, M. D.,
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ASSISTANT SURGEON, MANHATTAN EYE AND EAR HOSPITAL

In 1884 Professor Graefe, of Halle, proposed to remove the contents of the eyeball in cases of suppurative panophthalmitis, instead of performing enucleation, in order to guard against the danger of meningitis.* In 1885 Mr. Mules, of Manchester, England, proposed for cases of threatened sympathetic ophthalmia the insertion of a hollow glass ball, called an "artificial vitreous," into the globe after such an exenteration had been performed.† An occasional paper commending this operation, or proposing a modification in the details as laid down by Mr. Mules, has appeared from time to time, but the operation has not met with general acceptance, in this city at least, although all the evidence I have been able to obtain has been commendatory. Therefore I decided about a year ago to learn for myself what advantages and disadvantages were possessed by the operation over that of enucleation, and have since then performed it several times in the services of Dr. Pomeroy and Dr. Hepburn at the Manhattan Eye and Ear Hospital. The three patients whose cases are here described were operated on within the space of two months, and at least nine months ago. The two operated on by myself illustrate the most serious conditions under which the operation can be performed, and show the results obtained after some lapse of time in very inauspicious cases. Dr. Hepburn's case was a favorable one, and shows the usual result.

Case I.—A woman, forty-eight years old, was admitted into the hospital on September 11, 1899, with gonorrhœal ophthalmia. The cornea of the right eye had been entirely destroyed at the time. She was discharged on October 16th, after all secretion had ceased. She was readmitted on November 1st, with none of the previous inflammation present. Mules's operation was performed the same day on the right eye, in exact accordance with the rules laid down by himself. The conjunctiva was freed from about the cornea, and dissected back toward the equator of the globe. A cataract knife was then passed just back of the corneascleral margin, through the anterior chamber to the corresponding point on its opposite side, and the upper half of the cornea separated from the sclera by a section along this margin. The lower half was then cut away with scissors. The contents of the globe were removed, the interior of the sclera was thoroughly curetted until every trace of the uveal tract was gone, and the opening in the sclera was enlarged vertically by the excision of a triangular piece above and below. Bleeding was checked by means of a hot solution of corrosive sublimate, and a medium-sized glass ball was inserted. The edges of the scleral wound were then brought in close coaptation vertically with silk sutures, and the conjunctival wound was closed at right angles to the scleral. An aseptic dressing was then bandaged on.

November 4th.—Bandage removed. Lids greatly swollen, so as to produce an appearance very like that present in panophthalmitis. Ice cloths ordered to be constantly applied.

8th.—Swelling of lids greatly diminished. Ice cloths stopped.

12th.—Swelling of lids entirely gone. Eye perfectly quiet.

15th.—Discharged from hospital.

22d.—Removed a scleral suture where it had become exposed at the junction of the scleral and conjunctival wounds.

March 20, 1900.—The orbit was well filled by the eyeball, over which the lid drooped as in a partial ptosis, so that the absence of the eye was not very noticeable, even though no artificial eye had been obtained. Patient referred to A. H. Davis for an artificial eye.

May 7th.—Motion of the artificial eye better than is usually obtained after an enucleation, but considerably restricted and inferior to the result hoped for.

The result in this case, which was the first in which I performed the operation, is the poorest I have had. The eye had previously undergone a severe inflammation, which frequently causes adhesions to be formed between the sclera and the surrounding tissues, and I am inclined to attribute the restricted rotation of the artificial eye to the presence of such adhesions. At a later date I performed the same operation on another patient who had lost an eye from gonorrhœal ophthalmia, with the modifications of making the enlargement of the scleral wound horizontally instead of vertically, so that the insertions of the lateral muscles would not be displaced so much toward the centre, but remain more nearly in their normal positions, and of inserting a smaller glass ball, but the patient did not return after the artificial eye had been ordered. These modifications I made in all the cases except the first.

Case II.—A man, forty-five years old, was admitted into the hospital on November 6, 1899, with panophthalmitis induced by a penetrating wound of the ciliary region made by a nail two days before. Mules's operation was performed on November 13th. Considerable pus was evacuated from the interior of the eye. The scleral wound was enlarged horizontally, the hæmorrhage checked with a hot solution of corrosive sublimate, the inner surface of the sclera wiped thoroughly with pure carbolic acid and then with alcohol. A small glass ball was inserted, the edges of the sclera were united with silk, those of the conjunctiva with catgut sutures, and the usual aseptic dressing was bandaged on.

November 15th.—Bandage removed. Reaction con-

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*[*Ctrlbl. f. prakt. Augenh.*, 1884, page 378.

†*Trans. of the Ophth. Soc. of Unit. Kingd.*, v, page 200.

siderable, though not so great as had been expected. Ice cloths applied.

22d.—Well. Discharged from hospital.

This patient obtained an artificial eye from A. H. Davis which follows the movements of the sound eye very well in all directions. There is some limitation of motion, but much less than is usually to be observed after an ordinary enucleation. The presence of the artificial eye is hardly to be noticed, except when the patient turns his eyes considerably to the right or left.

Case III.—A boy, ten years of age, was admitted into the hospital on January 1, 1900. He had been shot in the left eye with an air-gun about an hour previously. The contents of the eyeball had largely escaped through a wound a quarter of an inch long, leaving the globe collapsed. Mules's operation was performed January 3d by Dr. Hepburn, in the same manner as in Case II. The bullet was found in the scleral sac.

January 4th.—Bandage removed. Marked reaction. Bandage reapplied.

8th.—Reaction subsiding rapidly.

14th.—Discharged.

The movements of an artificial eye obtained from Gougelmann & Co. are but very slightly circumscribed as compared with the movements of the sound eye, and the appearance is such as to momentarily deceive even an experienced observer when the boy is told to look in various directions. Inexperienced observers would be unlikely to notice it at all.

The great advantage of Mules's operation is that the glass ball within the sclera maintains the muscular apparatus of the eye in nearly its normal position, and so secures its better action, which results in better motility of an artificial eye when properly fitted. I have had no cases under observation long enough to demonstrate the correctness of the contention that the development of the orbit is maintained in children by the presence of the rounded globe in its cavity, but it has been made by several writers. We know that after enucleation in childhood the development of the orbit is more or less arrested, and that, if this can be prevented by any such means, it will be to the greatest advantage of the child to have Mules's operation performed, instead of enucleation, whenever it becomes necessary to remove an eye. The principal, if not the only, exception to this rule is that the entire globe should be removed when it is the seat of malignant disease.

The most serious objection I have found to be the prolonged convalescence, which lasts from ten to fifteen days, about double the length of that following enucleation. Failure of the operation, with extrusion of the glass ball, occasionally happens, but I have not had the misfortune to have it occur in any of the cases in which I have operated. It may be the result of the insertion of too large a glass ball, suppuration, or, I am inclined to believe, the absorption of catgut sutures in the sclera before the cut edges of that tissue have become firmly united. It seems better to use the smallest-sized ball in every case, and to use silk to unite the edges of sclera. Suppuration is to be guarded against by the observation of the strictest antiseptic precautions, by which I mean any precautions which will produce and maintain a condition of asepsis, both during the operation and during the subsequent dressings. If this is rigidly maintained, there will be no danger of failure from this cause.

Finally, this operation seems to me to be particularly indicated in children as a substitute for enucleation in every suitable case, and in adults to whom personal appearance is a matter of importance sufficient to warrant the prolongation of the convalescence for about a week.

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FIBROMA OF THE LARYNX.*

By A. B. THRASHER, M. D.,

CINCINNATI.

Fibromata of the larynx are not sufficiently rare or as a rule of so much importance as to justify calling the attention of specialists to a particular case. Yet the case which I beg to report presents such peculiarities in the distribution of the connective-tissue fibres as to have called for the most heroic and rapid measures to prevent a fatal termination to what we are accustomed to name a non-malignant growth.

I have found but two other similar cases among a large number of reported fibromata, one of which terminated fatally in a very short time after coming under the observation of one of the most skilled surgeons of his day; the other was treated quite as the one I have now the honor of reporting to you, and with the same fortunate results.

In April, 1897, there came to my office Mrs. H., aged fifty-six, suffering from dyspnœa and hoarseness. She was a large, well-nourished woman whose previous health had been excellent. There was no family history of malignant or other hereditary disease. She had recently had recurrent attacks of hoarseness, from which she had before made rapid recoveries, her voice, however, gradually growing coarser.

Within the past few weeks she had become so hoarse that her voice would at times degenerate into a coarse whisper, and was at best of a rasping character. She breathed heavily on the slightest exertion and presented a beginning cyanotic countenance. The dyspnœa was rapidly progressing and it was for relief from this that was the immediate cause of her consulting me. She had a chronic nasopharyngitis. The faucial walls were red and thick, and the glandular tissue in the pharynx was hypertrophic.

The laryngoscope revealed a growth occupying the posterior and lateral walls of the larynx. The vocal cords were pushed into the centre of the larynx, and the arytænoids, especially the left, were much enlarged. During phonation the cords approximated fairly, but they had a markedly deficient abductor movement.

The color of the intralaryngeal mucosa was somewhat reddened and there was present an increased amount of mucus. I could readily pass a laryngeal sound between the cords, the presence of the instrument creating only a small amount of reflex disturbance. With my out-ting laryngeal forceps I removed a small mass from the thickest portion of the posterior wall which I submitted to Dr. Albert Freiberg, of the Cincinnati Hospital, for microscopic examination. Since she lived in a town an hour's ride from the city, and wanted to return home the same day, I put her on increasing doses of iodide of potassium for a week, with instructions to return at the end of that time. Dr. Freiberg in the meantime reported to me that the growth had the characteristic appearance of a fibroma underneath a normal mucous membrane.

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*Read befoer the American Laryngological Association at its twenty-second annual congress.

In about the appointed time she returned with all her bad symptoms worse. She was by this time extremely cyanotic over the face, lips, and eyes. Loud, sonorous râles could be heard accompanying her respiration. The mucus could be seen bubbling up between the cords, and the lumen of the larynx was much diminished by the swelling of the lateral tissues. So alarming were her symptoms that I immediately sent her to the Good Samaritan Hospital, where I proposed to do a laryngotomy and attempt to give her a larger air passage. The next morning, assisted by Dr. Harf, Dr. Wade Thrasher, and the hospital internes, I did a preliminary tracheotomy and inserted a tube, thoroughly packing the trachea around the tube with iodoform gauze, so that no blood could reach the lungs. This done, I immediately laid open the larynx from the lower border of the cricoid cartilage, through the cricoid and the anterior angle of the arytænoid to the base of the epiglottis. From the lower border of the cricoid to above the vocal cords I found the mucous membrane pushed into the lumen of the larynx, causing it to present a flattened instead of the normal concave surface.

There were no special circumscribed growths, although about the posterior superior region, in the neighborhood of or over the arytænoids, was the greatest thickening. An incision into this thickened mass revealed a submucous hypertrophy, of apparently connective tissue, extending down to the cartilaginous framework of the larynx.

By means of a cutting forceps, aided by sharp curettes, I removed the fibrous tissue from each side of the larynx until I thought the opening would be sufficiently large for breathing requirements. In my removal of tissue I did not regard the position of the vocal cords, although I thought the infiltration was not so great along the middle and anterior attachment. I saved some of the largest pieces for further microscopical examination, and subsequently Dr. Freiberg reported that there was still present only the appearance of connective-tissue hypertrophy.

The inner surface was then cauterized with a saturated solution of Merck's trichloracetic acid and dusted with iodoform, and the cartilages were brought together with silver-wire sutures and dressed as usual.

Breathing through the tracheal tube was good, the râles in the chest subsiding after a few days. After a period of less than a month I was able to dispense altogether with the tube, the laryngeal opening being quite sufficient for all breathing requirements.

I have seen her at intervals since the operation. She has now perfect health, her color is good and her voice is quite audible, although rough and hoarse. The inner surface of the larynx presents a roughened appearance, but there is no indication of a recurrence of the neoplasm or of a further contraction of the breathing channel.

The patient came to me with an accompanying diagnosis of cancer of the larynx; but the slowness of the growth and the absence of pain and violent local inflammation quickly pointed to a benign rather than to a malignant neoplasm. The gradual encroachment on the breathing space, finally giving rise to progressively increasing dyspnœa, than which there is nothing more alarming to the patient, was the single symptom driving her to seek relief.

In looking over the literature of such cases I have found in the *Transactions of the Pathological Society of London,* vol. ii, 1858, the following report, made by Dr. Bristowe, of a case so like mine that I beg leave to report a synopsis: A woman, aged forty-six, with a loud, ringing whoop on inspiration, expiration not being impeded, died suddenly in two days after her admission into St. Thomas's Hospital. She had been ill for thirteeen weeks, suffering from oppression of the chest and gradually increasing dyspnœa. An autopsy revealed the upper part of the larynx above the vocal cords apparently normal, although the cords were parallel and in contact. The mucous membrane below the vocal cords, instead of being concave and forming the walls of a hollow cylinder, bulged out on each side so as to form two flat vertical walls, sloping off gradually below to the normally circumstanced mucous membrane of the trachea. The flattening of the surfaces had evidently been produced by mutual pressure, and where the pressure had been greatest the surfaces were rendered opaque and presented two or three small roundish or oval excoriations. On applying pressure with the finger, it was distinctly ascertained that the protrusion of the mucous membrane was due to the presence of some softish elastic substance beneath it; and on vertical section, a small mass of material in part opaque, buff-colored, tough, and fibrinous, in part softish and somewhat flesh-colored, and in part distinctly vascular, was found seated on the upper border of the cricoid, without involving it or extending into the muscular and cellular tissues around. This deposit touched neither the posterior nor the anterior part of the cricoid, but was symmetrically disposed with reference to its lateral portions, and formed protrusions about equal in degree both inward toward the canal of the larynx and outwardly toward the thyreoid cartilage.

Although molded on the cartilage, it appeared to be developed essentially in the muscular and cellular tissues, and in several places the muscular fibres were distinctly continuous with it. The deposit yielded no juice, and presented all the characteristics usually manifested by the fibrinous formations seen in the muscular substance of the heart.

Dr. Gurdon Buck reports to the New York Academy of Medicine (*Medical Record,* 1870) a somewhat similar case. Aside from these I can find no cases where an intralaryngeal fibroma has been so manifold in its attachments.

Seventh and Race Streets.

A CASE OF
PIN IN THE LARYNX FOR TWO YEARS; REMOVAL BY ENDOLARYNGEAL METHODS.*

By A. W. DE ROALDES, M. D.,

NEW ORLEANS.

In May, 1894, Bertha R., aged about nine years, white, from Poplarville, Miss., was brought to my office with the following history: Two years previously she had sucked down her throat a pin that she held in her mouth. She was immediately seized with severe coughing and choking, accompanied with little hoarseness, however. Dr. J. M. Thornhill, her family physician, was called in at once, and, hoping the pin could be dislodged, administered the white of an egg, corn bread, and other rough food, to no avail. In the doctor's own words, "a subacute inflammation was soon set up, with light fever, sore throat, and coughing and gagging spells. A profuse discharge of saliva, with inability to swallow any but liquid food, and pain even on drinking water were also among the symptoms. The night's rest was particularly disturbed, the patient having to assume an almost sitting position, to prevent choking from the accumulating secretions, the respiration being so noisy as to disturb the whole house. I advised her being taken to New Orleans for treatment, but it was deferred until the parents were convinced of its necessity by the aggravated condition of the patient and the appearance of a hard swelling on the outside of the neck. For nearly two years she had lived and suffered, but had ceased to grow, and had declined in health and spirits so that, when she left home for treatment, she was almost a physical wreck."

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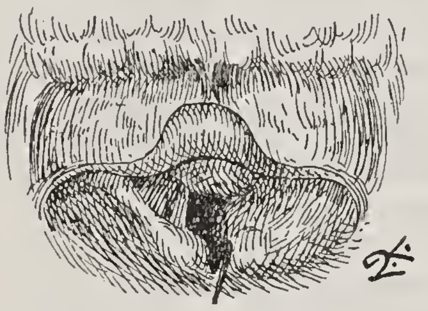
*Read before the American Laryngological Association at its twenty-second annual congress.

When first seen by me, the little patient was so nervous and apprehensive of pain, the throat was so irritable, the parts were so swollen, and the secretions were so abundant that, although the presence of the pin in the larynx was quickly confirmed, it took nearly two weeks of laborious training to make even an imperfect examination. Short glimpses of the larynx with the mirror and gentle touching of the parts with the finger allowed finally a sketch to be made, for which I am indebted to the skillful pen of Dr. Q. Kohnke.


PIN EMBEDDED IN THE LARYNX.

The sharp point and about one-third of its length are seen emerging from the posterior aspect of the larynx, having passed through the right arytænoid eminence, near its base and to the inner side, so that it lay almost in the interarytænoid tissue, and projected backward until the point came in contact with the posterior wall of the pharynx, just above the mouth of the œsophagus. The constant irritation at this point had given rise to the formation of a cluster of granulations on the pharyngeal wall. The head of the pin was imbedded more deeply, in the right side of the larynx, just above the false vocal cord, this part being correspondingly swollen, so that the true vocal cord was not plainly visible. On phonation, the left arytænoid was almost if not completely immovable, while the right was not affected in this way, but moved freely toward the middle line, with no tendency, however, to a compensatory action.

Externally, a large indurated lump covering the whole anterior surface of the larynx, from the hyoid bone to the cricothyreoid membrane, could be observed, the result of a chronic infective process from within. An attempt at extraction having failed, due to the resistance of the patient upon the introduction of the forceps as much as to the abundance of the secretion and the very imperfect action of the cocaine, it was decided to make another attempt later, with a general anæsthetic, granting meanwhile the request of the patient to go home for a few days to rest.

On July 5th, with the assistance of Dr. Thornhill and Dr. Gordon King, the patient being anæsthetized with the A. C. E. mixture, the emerging point of the pin was seized under a light with the forceps. Two attempts at extraction proved ineffectual, owing to the sticking of the point in the posterior wall of the pharynx. After seizing the point of the pin for the third time with the forceps, the mirror was laid aside and the left index finger was introduced deep into the lower pharynx, behind the larynx, with the object of steadying the latter and of pushing it forward at the same time. Thus more space was obtained between the arytænoid and the vertebral wall wherein to partly pull out of its bed into a horizontal position the body and head of the pin before beginning to change the line of traction in the upper direction. In this way the posterior wall was cleared without its being pricked, as in previous attempts, by the sharp point and the damage to the laryngeal structures minimized.

During this manœuvre so much resistance was experienced that under the pressure of the blades of the forceps they sprang and became twisted, the pin escaping from their grasp.

Fortunately, when this occurred, the pin had been disengaged from its bed and was immediately brought up in the mouth by the left finger engaged in the lower pharynx, and it was found in a towel by the nurse, amid abundant secretions that she had wiped from the mouth of the patient.

The pin was an ordinary brass one, about an inch and a quarter in length, and was rough and oxidized.

The patient left the next day, and recovered perfect health, the swelling of the neck not disappearing, however, before three months.

In connection with the nature and treatment of this case, the following points may be of interest:

1. The site of entrance of pins imbedded in the larynx, I admit, is at times, as in the case of S. W. Langmaid, a matter of mere conjecture. In that regard, I would venture the following theory: That frequently the pin must be sucked head downward deep into the larynx and even into the trachea; it is then coughed up in the next violent expiration, to become implanted from below, into the structures from which subsequently the point emerges. This could explain the strange and unnatural position of the pin as located in the cases of Semon, Wilkins, Berger, Langmaid, and others, and as seen in the accompanying sketch. Its migration, unlike that of a needle, is impeded by its head.

2. The position will often be accurately ascertained by the laryngoscope, if not at a first glance, at least after repeated examinations and proper training of the patient. The digital examination will sometimes be of service. Under certain circumstances we must not fail to imitate Mackintosh, who, as in the case of Downie, detected with the Röntgen ray the presence of a pin which was hidden in the right ventricle of the larynx, which otherwise could not be located.

3. The mode of extraction will generally be determined by the relative position of the head and the point of the pin, there being very rare occasions where an external operation is necessary.

4. Considerable difficulties are, nevertheless, encountered in certain cases by the intralaryngeal method, on account of the age of the patient, the swelling and irritability of the parts, the abundance of secretions, and the transfixed condition of the tissues.

624 Gravier Street.

A RÉSUMÉ OF SOME PAPERS PRESENTED TO THE THIRTEENTH INTERNATIONAL CONGRESS OF THE MEDICAL SCIENCES.

(*Continued from page 549.*)

The following papers are abstracted from the *Comptes rendus* furnished by the *Agence centrale de la presse scientifique internationale.*

Section of Dermatology and Syphilography.

The Parasitic Origin of Eczema.—Professor Jadassohn, of Berne, formulated as follows the conclusions at which he had arrived: 1. In the great group of ordinary eczemas there are efflorescences in which, by the aid of the means at present at our disposal, microorganisms cannot be discovered, or at least not in such sort that any pathogenic rôle whatever can be attributed to them. In these forms we must admit, as ætiological factors, local and general predispositions—which are but little known to science, and depend sometimes upon well-known morbid conditions—as well as mechanical and chemical irritations. 2. In these processes, as well as in many other diseases of the skin, we are very often able to make out the invasion of the noxious microorganisms which are found upon the integument of man and in in his environment (staphylococci and streptococci). The consequences of this invasion are dependent on the degree of virulence of the microbes, the local and general predisposition of the patient, and the nature of the original process. They result in alterations which constitute a long series of very different reactions in the skin, from the slightest irritation to the most severe impetigo, from the most transitory lesion to the most severe and chronic eczema (ordinary secondary noxious infections of the skin grafted upon true eczema, upon artificial dermatites, parasitic diseases, etc.). 3. These ordinary infections can occur at the outset without any perceptible morbid process. Their development and their degree of severity depend very greatly upon the nature of their soil (primary common noxious infections of the skin).

The Parasitic Origin of Eczema.—M. L. Brocq and M. Veillon, of Paris, from their study of the subject drew the following conclusions: 1. In the present state of our knowledge the existence of a specific pathogenic microbe of eczema had yet to be demonstrated, though it was possible that such a microbe existed without being yet discoverable by our present methods of investigation and culture. 2. The primitive lesions (closed vesicles) of true (*i. e.*, vesicular) eczema, in their normal condition, did not contain any microbe demonstrable by methods at present known to bacteriology. 3. Various microbes, especially the staphylococcus, which abounded upon the exuding or crusted surfaces of eczema, constituted secondary infections, whose direct action upon pure eczema, without having been elucidated, was suspected. What was certain was that the microbes were responsible for the greater part of the complications and of the purulent dermatites which so frequently confused the typical evolution of pure eczema.

In short, the elementary typical, primary lesion of true (*i. e.*, vesicular) eczema, was not microbic; but the surface of the eczema was very promptly invaded by secondary infectious microbes capable of creating on it their special lesions which were microbic by nature. They thus obscured the symptomatic picture of an affection of which they were in no sense the primary cause.

Section of Gynæcology.

Cervical Metritis.—M. S. Pozzi, of Paris, formulated the following conclusions: 1. Acute or chronic inflammation of the cervix uteri can exist for a long time in an isolated condition without invading the body of the uterus. 2. Acute lesions of the cervical mucosa become extended easily to the mucosa of the body of the uterus, and chronic lesions of the cervical parenchyma, of inflammatory origin (sclerotic or sclerocystic degeneration, partial or total), react promptly upon the nutrition and the anatomic state of the uterine body in its entirety. 3. The operation of trachelorrhaphy is inferior to a biconical resection of the cervix, more or less modified according to the circumstances, and should be abandoned. 4. There exist a great number of acute, subacute, or chronic inflammations of the cervical mucosa in mulliparæ which are connected with stenosis of the external os and the consequent insufficient drainage. The most important part of the treatment, then, lies in establishing permanently, by operative measures, an adequate outlet from the cervix uteri.

Cervical Metritis.—Dr. Döderlein, of Tübingen, said that at the present day the causes of inflammatory diseases of the canals or cavities of the body communicating with the exterior should be sought promptly in microbic infection. Modern bacteriologic researches had led to this result, that it was the external os uteri which formed the boundary between the lower portion of the genital organs, containing microorganisms, and the upper part which did not contain them. The cervix uteri and its mucous secretion did not ordinarily contain any microbes. Microbes introduced naturally, or even artificially in the course of experimental researches, ceased to live, being destroyed by the alkaline cervical mucus. Thanks to this bactericidal property, the cervix uteri protected, not only itself from the microbes, but also the uterus, the tubes, and the peritoneal cavity, from the microorganisms which found their way into the vagina and lived therein. Of those pathogenic parasites, germs, which penetrated into sound and living tissues and there produced inflammation, there were only two species, the gonococcus of Neisser and the bacillus tuberculosis of Koch, which had any biological importance in cervical metritis. While the localization of gonorrhœa to the cervix was very frequent, tuberculous infection limited to the cervix was extremely rare. The protective powers of the cervix uteri availed nothing against the gonococcus; the other germs which penetrated with the gonococci or after them, were unable to establish themselves there, so that mixed infections were not very likely. Tuberculous, syphilitic, and diphtheritic diseases of the uterine cervix were diseases apart, very different from what was known as cervical metritis. If one considered the non-infectious cervical metritides one saw that tears of the cervix played an important ætiologic rôle, as well as all the causes and maladies which produced a combined metritis and endometritis. The mucosa of the cervix was predisposed to hyperplasias, polyps, and to indurating or eroding lesions; that of the vaginal portion, on the other hand, to epithelial changes, that was to say, to papillary and follicular erosions. The squamous epithelium was replaced by a cylindrical epithelium which had a tendency to extraordinary proliferation. The anatomo-pathologic lesions were well known and undisputed; the ætiology, on the contrary, had need of much further study both by bacteriological researches and by clinical observations.

Section of Experimental Pathology.

The Respective Merits of the Sanatorium and the "Home Sanatorium" for the Tuberculous.—Dr. Hérard de Bessé, of Pougues, consulting physician at Beaulieu, said that the sanatorium and the "home sanatorium" were complementary, the one of the other, in the treatment of the tuberculous, and each method presented both advantages and inconveniences. It rested with the physician to select the more suitable form for his individual patient; the segregating institution (*établissement fermé*) was not altogether perfect, and we should not always consider tuberculosis equivalent to the need for consignment to a sanatorium. The sanatorium offered nothing that could not be otherwise attained; the climate cure, originated by Bennet at Mentone, in the French Riviera, was not confined thereto, any more than was overalimentation. However, the advantages of the sanatorium were indisputable from certain points of view. Discipline was in force there, facilitated for the newcomer by the example of the senior patients, and surveillance was constant. In certain houses, the equipment was perfect and answered to all the requirements of hygiene. Excellent published statistics sufficed to convince physicians of the superiority of the sanatorium; but we must not allow ourselves to be dazzled by them. For numerous reasons it was impossible to compile statistics from other sources than sanatoria; and since the selection of patients in force there inevitably eliminated the insubordinate, the incurable, etc., such statistics could only have a relative value. Moreover, if the sanatorium deserved eulogy, it was equally open to certain strictures. The gathering together of from one to two hundred tuberculous subjects in one building, however large, however well ventilated it was, and in one sun parlor, which must needs be sheltered from the wind, was an objectionable thing from the point of view of purity of the atmosphere. This danger of the compact agglomeration of a great number of invalids appeared even greater when the experiments of Pflüger were considered, which proved that the consumptive, in speaking and coughing, created around him a bacillus-laden atmosphere; a sun parlor, therefore, containing from one hundred and fifty to two hundred invalids, represented a plenitude of bacilli in the air. And the bacillus, especially that from other hosts, was a special danger for the tuberculous. It was a great question, and one not favorable to the sanatorium.

Moreover, if we admitted with Pflüger that the spittoon did not suffice for the destruction of the microbes, could we deny, as had been done, that the sanatorium contaminated the vicinity? That would appear to be undeniable when it induced the formation around it of a village of consumptives in which air, light and the southern sun could no longer exercise their bactericidal action.

Finally from a moral standpoint, the sanatorium offered, equally, room for criticism. The abrupt transition from home surroundings to a sort of barracks, in which it became necessary to render prompt obedience to a rigorous discipline, demoralized and revolted many patients. The common life, without any possibility of privacy and of avoiding promiscuous and often uncongenial associations, was not to every one's taste. To this must be added the impression produced upon a consumptive by the constant spectacle of others, tuberculous like himself, of whom some visibly declined, the progress of whose disease he watched, whom he saw dying by inches. This constituted a powerful cause of moral depression and constant discouragement. Further, the catering for some one hundred and fifty or two hundred people resembled objectionably the cuisine of a hotel, and it was impossible in the menus to take account of the tastes and needs of each. Finally, the continual association of young men and women, both generally in a condition of sentimentality and exaggerated sexuality, led too often to regrettable accidents. Everything tended toward it; the sadness inseparable from the strangeness to the newcomer, the isolation from the outside world, the contemplative existence, the ennui, etc. Life in a sanatorium was strewn with dangers toward which the patient was driven by every circumstance, in addition to the natural leaning thereto which often existed. There passed scarcely a year, even in the smaller sanatoria, in which events of this kind did not occur. There was here a veritable danger, not only from the medical, but also from the social, point of view. It seemed, then, that we must often hesitate to recommend a sanatorium, especially to a young single woman, and must always refrain from doing so, if we supposed her to be in the state of sentimentality and sexual excitability before referred to.

Like the sanatorium properly so called, the "home sanatorium" also offered both advantages and inconveniences. At first, a single invalid was tended there, and every one agreed in desiring establishments with the smallest possible number of patients, say from fifteen to twenty. Nearly everywhere were found villas realizing the necessary conditions, and consequently the choice of climate was facilitated thereby. There were no disagreeable contacts, no objectionable promiscuity. The home surroundings being merely transported elsewhere, not destroyed, the patient felt himself less expatriated, less lonesome. A special cuisine was possible, etc.

There were, however, inconveniences more or less serious attaching to the "home sanatorium." The discipline was easier, it was said. But it must not be forgotten that a refractory patient refused to enter a sanatorium. For the rest, when they comprehended the utility of the rules imposed upon them, when they were well supervised, *i. e.*, by their parents or a nurse, when the physician knew how to impose his authority (and it was possible for him to do so in a home quite as satisfactorily as in a sanatorium), perfect discipline might be obtained. The patient in a "home" was, it was said, a danger for his surroundings. He was accused of contaminating his habitation and his vicinity! But surely not more so than in a sanatorium! Perhaps less, for he was there by himself, and measures of disinfection were not the sole appanage of sanatoria; and, moreover, there were light and the bactericidal sun for him. Only two arguments, in short, had any real value: 1. The treatment of the "home sanatorium" was the most costly of all; 2, the patient needed to be accompanied.

The author draws the following conclusions: The segregating sanatorium constitutes a good method of treatment, if situated favorably from a climatic standpoint, for persons to whom the atmosphere of flirtation which pervades the greater part of sanatoria has no dangers. It is the sole resource of those for whom the villa treatment is too costly. The "home sanatorium" is the treatment of choice for every one for whom care is necessary, and who is accompanied and has the necessary means. It is particularly indicated when the case is one of patients, and especially women, for whom the sanatorium is a moral danger.

Section of General Pathology.

The Degeneration and Regeneration of Motor Nerve Terminations Consecutive to Section of the Peripheral Nerves.—Mdlle. Hélène Densusianu set herself to resolve the following problems: 1. If any modifications of the motor nerve terminations followed section of the peripheral nerves. 2. The time at which such modifications commenced. 3. Of what they consisted, and what was their signification. 4. If such motor terminations ultimately became regenerated. 5. In what manner. 6. At what period of time from the section of the nerve was the regeneration effected. Experiments were made upon guinea pigs by section of the sciatic nerve. The results are summed up by the author in the following conclusions: 1. On section of a peripheral nerve, the motor terminations do degenerate. 2. Modifications are apparent at the end of the fifth day. 3. They consist in a contraction of the terminal ramification which supervenes on the fifth day; this contraction then undergoes solution, which continues progressively up to the seventieth day, by which time it is complete. The nuclei are not modified. The modifications observed appear to be purely degenerative. Their early commencement proves that they are independent of the modifications which take place in the peripheral extremity of the divided nerve. 4. The nerve terminations do become regenerated. 5. The regeneration takes place in a descending manner; that is to say, the newly formed nerve fibres on arriving at the muscle fibres, give rise to terminal ramification. 6. By the one hundred and fiftieth day there are sound terminations, though as yet not completely developed. By the hundred and eightieth day they are completely developed and identical with normal motor plaques.

Therapeutical Notes.

An Antiseptic Varnish to Replace Collodion.—The *Journal des praticiens* for August 18th attributes the following to Nicaise:

℞ Thymol	22½	grains;
Balsam of tolu	75	"
Powdered shellac	900	"
Alcohol at 90°	750	"
Ether	1500	"

M.

Formulæ for Disinfection of the Mouth in Infective Diseases.—*Riforma medica* for August 1st ascribes the following to Chantemesse-Widal:

℞ Pure carbolic acid	75	grains;
Glycerin	375	"
Camphor	300	"

M.

To be applied to the buccal mucous membrane by a pledget of cotton on an applicator.

The following is ascribed to Soulez:

℞ Pure carbolic acid	75	grains;
Camphor	300	"
Olive oil	750	"

M.

Use in the same manner as the foregoing.

The following is attributed to Lemanski:

℞ Carbolic acid	75	grains;
Alcohol at 90°	150	"
Camphor	300	"
Pure glycerin	375	"

M.

To be used as the foregoing.

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THE IMPORTANCE OF TESTING THE WATER IN CITY MAINS.

LEAKS in the buried water pipes, it has been stated authoritatively, are the cause of much of the waste of water. Unfortunately, under certain circumstances, it would appear, they also allow polluting material to gain access to the interior of the conduits. This is when the pipes are not filled with water, so that the pressure which normally might resist the entrance of extraneous matter is not present. It is thought that at times even a suction force is at work in the pipes. One of the residents in the Kingsbridge district, in the borough of the Bronx—a district that now has added to its deficiency in water the discovery that its scanty supply contains sewage—informs us that on the higher levels all the tank-valves and partially open taps give out a plainly audible sound of suction as soon as the water begins to recede in the mains, early in the morning, and that if one places his finger over the mouth of an open faucet, the suction can easily be felt.

This gentleman argues that, if the suction in question is exerted at points where, under pressure, water leaks from the pipes, the reverse must take place; the receding water, he says, making a partial vacuum, must draw in the sewage-contaminated mud and water that are stagnant in the soil. At all events, he has had two specimens of water from the mains in his district examined chemically, with the result of disclosing a decided contamination with sewage. It is unnecessary to speak of the danger to the health of the residents which must result from this state of things, but it may not be out of place to remark that during the few hours at night when there is a comparatively free flow through the contaminated pipes the pollution is likely to be widely diffused, although of course lessened in degree by dilution.

Fortunately, this particular source of contamination is likely to be of only brief duration in the borough of the Bronx, for the work of connecting the Byram River system with the Croton system is now going briskly on, and it is expected that the restoration of normal pressure which will result from the completion of the work will put an end to leakage into the pipes. It is to be hoped that a similar condition will not be found to exist in the borough of Brooklyn, where the supply of water is by no means what it ought to be. But wherever pollution is present it is better to know the fact than to go on in blind ignorance of it; consequently the testing of drinking-water should be performed on the slightest suspicion of its impurity.

THE SMOKE NUISANCE IN NEW YORK.

THANKS to the vigilance of our city board of health, New York has heretofore been free from the grimy cloud of smoke that hangs almost constantly over many a town in the United States and elsewhere, and it has been with pride that our citizens have taken visitors to the top of some tall office building and shown them that, look in whatsoever direction they might, not a single chimney discharging black smoke could they see. The board's watchfulness in this matter has not been wholly or even chiefly inspired by regard for a pleasing clearness of view; it has had foremost in mind the duty of providing the people with air fit to breathe, as compared with the carbon-laden atmosphere of other great manufacturing cities. No doubt the air of New York is noisome in comparison with country air, and largely rendered so by preventable pollution, but in the one respect of freedom from floating particles of carbon it has been all that could be desired.

For a week or two past, however, a few concerns, more anxious to save a few dollars in their business than to conduct it in a manner compatible with the health and comfort of their fellow-citizens, have been burning soft coal without going to the expense of providing smoke-consumers. This, we are told, has been due to the strikes in the coal regions. The board's inspectors have been prompt to detect the offenders, and in many instances fines have been imposed upon them, but this does not suppress the evil, for some manufacturers, it is suggested, find it more economical to pay even repeated fines than to comply with the law. This being the case, President Murphy, of the board of health, is reported as intending to bring about a few sentences of imprisonment, even if only for a few hours. We presume the law provides for such sentences; otherwise Colonel Murphy would not cherish any intention of the sort ascribed to him. It is to be hoped that he will succeed, if it becomes evident that such a severe punishment is necessary. Perhaps a fine for the first offense and imprisonment for its repetition would be just. At all events, the end in view must be attained, and it is the duty of all citizens to aid the board in its efforts.

There are other nuisances that we may hope to be rid of in the course of a few months—the puffing of the steam locomotives on the elevated railways and their intolerable stench. The latter is not usually perceived by pedestrians or by the occupants of the ground floor of a building facing the tracks, but at frequent intervals it is painfully apparent to persons on the upper floors, especially in summer, when it is almost a necessity to keep the windows open. Not only are the belchings of these engines offensive, but there can be little doubt that the gases they contain are injurious to health when inhaled repeatedly. But all this we may expect to see done away with when the electric motor supplants steam power on the elevated roads. We presume the suppression of the horrible shrieking sounds frequently heard when a train is brought to a stop is hardly to be hoped for, though we see no reason why it should not be perfectly feasible.

THE SOUTH CAROLINA MEDICAL ASSOCIATION.

It was a notable address that was delivered at this year's meeting, the semi-centennial, of the South Carolina Medical Association by its president, Dr. W. Peyre Porcher, of Charleston. In it Dr. Porcher summarized the medical history of the State for a long term of years, and depicted the past and present conditions of the medical profession.

It seems that at the time of the meeting, in spite of recent accessions, the association had only two hundred and seventy members, although there were about eleven hundred practising physicians in the State. Ever since the initial meeting, in 1848, says Dr. Porcher, the association has been striving for a membership representing every county adequately, but has failed to accomplish its full purpose. The failure he regards as "proof that there is some grave error in the polity of the association." We gather from what he further says on this point that, although goodly numbers of men become members each year, many of the older members drop out; we gather, furthermore, that in great measure these lapses from membership are due to the gentlemen's inability to bear the expense incident to membership. Dr. Porcher compares the association's condition with that of the corresponding bodies in the neighboring States of North Carolina and Virginia, in which the annual dues are only two dollars. The North Carolina society has a membership of seven hundred, and the Virginia society has a thousand members.

We do not know what the annual dues are in the South Carolina Medical Association, but we can hardly conceive that they are so much more than those of the two other organizations mentioned as to constitute the chief impediment to a large membership. The expense of attending the meetings, too, one would think, would fall no harder upon the South Carolina physicians than upon their brethren in North Carolina and Virginia. If, however, our friends in South Carolina find the expense of belonging to the association burdensome, they should still persevere, for a brisk growth in the membership should mean a reduction of individual expense. After all, we take it that it is not entirely the matter of expense that has so persistently blocked the way to the association's proper growth, and we think that Dr. Porcher was wise in sending a circular to every member to elicit suggestions as to the best means to be taken to remedy the present state of things.

South Carolina, save for the few gloomy years that the North and the South alike remember with mingled pride and sorrow, has always been ably represented in the American Medical Association, and is still. It is to be hoped that her medical men will respond in great numbers to Dr. Porcher's forcible call.

THE SEI-I-KWAI MEDICAL JOURNAL.

This is a Japanese journal (with part of its contents printed in English) edited and published by the Sei-i-Kwai (Society for the Advancement of Medical Science in Japan). In an article concerning the hospital ship *Kosai Maru,* which the Japanese government kindly furnished for the benefit of the allied forces, we may see how careful the Japanese are to prepare thoroughly; among the vessel's staff there was "one instrument-sharpener."

SAUCE FOR THE GOOSE, SAUCE FOR THE GANDER.

It is truly said that "Prejudice dies hard." The *British Medical Journal* for September 15th contains a letter from a Liverpool physician protesting against the congratulations offered by that journal to the poor law guardians of Cookstown and to a woman doctor who has been appointed by them as *locum tenens* for their regular medical officer. The protester is much exercised over the fact that the poor, amongst whom, strange to say, he has found "as great a delicacy of feeling as amongst the higher grades of society," will either "have to consult Miss Crawford or suffer their complaints in silence until the return of Dr. Bell." "So long," says this gentleman, "as a female practitioner confines herself to the treatment of her own sex many persons would not object (!), and if one of the opposite sex should seek her advice, she could consult her own feelings whether she would acquiesce in giving it." The calm assumption that there is something inherently shocking in being called on "to consult a female practitioner concerning, for instance, renal or rectal affections, to undergo an inspection for bubo or hæmorrhoids, or to have to submit to the passing of a catheter," utterly oblivious of the fact that until quite recently women have been everywhere, and in many places still are, compelled to submit to all these things at the hands of men, without any choice being afforded to them, or any opportunity for the unhappy male practitioners to "consult their own feelings whether they should acquiesce" in so indelicate a procedure, grows on one in its grotesque ludicrousness. What qualms the worthy doctor must have when the summons to a midwifery case reaches him. As for gynæcological cases, of course he blushingly refers all those to the nearest "female practitioner."

URBAN SANITATION AND THE RAPID GROWTH OF CITIES.

Probably in no other country than the United States is the sanitary care of cities complicated with such a marvelous growth of population as is going on here. In many cities the increase is over fifty per cent. in the decennial period between censuses. In a few others it was decidedly higher during the decade 1890 to 1900, reaching over two hundred and twenty-two per cent. in the case of South Omaha.

BODILY SIZE AND MENTAL CAPACITY.

It is interesting, but not surprising, to note that, in an examination of several thousand Chicago children recently, mention of which is made in the *New York Times* for October 2d, that as a rule the larger pupils were found ahead of the smaller ones in intellectual development. The larger the person, the larger is the brain apt to be, but of course in exceptional instances quality counts for more than quantity does.

MRS. EDDY'S EXCLAMATION.

It is rumored that the mother of "Christian Science" lately availed herself of the services of a dentist, and that while she was in the dentist's chair she exclaimed "Outch!" Her disciples may interpret that exclamation as one of triumph at the demonstration that she felt no pain.

THE COLONEL'S BABY.

Physicians occasionally encounter a brute of a man who rebels at the birth of a daughter. Not so repulsive, but rather amusing, is the conduct of a certain French colonel, as told in *Lyon médical* for September 9th. When the accoucheur announced that his new-born child was a girl, he exclaimed: "I don't want her! Put her back!"

ACID AND NEUTRAL CULTURE MEDIA.

A fine point is brought out by Dr. Louis Dor (*Lyon médical,* September 2d) in regard to the most suitable reaction of bouillon as a culture medium for certain microbes. He says that an acid bouillon treated by the addition of fifteen grains of caustic soda to the quart is a better medium for cultivating the streptococcus and the staphylococcus than one that is perfectly neutral.

DISLOYALTY TO THE RED CROSS IN SOUTH AFRICA.

It is a source of astonishment to find that in the recent inquiry into the treatment of the British prisoners at Pretoria while in Boer hands there should have been reason for Lord Roberts to specially stigmatize the conduct of a British physician, who was a member of the Transvaal branch of the Red Cross Society, in the following terms: "It would be difficult to condemn too strongly the conduct of Dr. H. P. Veale, M. B. (Cambridge), whose heartlessness in ignoring the disgraceful treatment of the sick prisoners, and the remonstrances addressed to him by the medical officers in immediate charge of them, calls for the severest reprobation." The matters complained of appear to have received prompt attention by the Transvaal Committee, on the vigorous intervention of a foreign physician, Dr. von Gernet. While it may be beyond human nature for the assumption of the Red Cross badge to enable a man to divest himself entirely of sympathetic leanings or prejudices, even though he does his best to act independently of them, such a departure from the spirit of the organization seems unpardonable when exercised against one's own compatriots.

ITEMS.

Changes of Address.—Dr. Follen Cabot, to No. 129 East Thirty-first street, New York; Dr. M. L. Foster, to No. 542 Fifth avenue, New York; Dr. H. Krogstad, to No. 1524 K street, Washington, D. C.

The Death of Dr. Korsakoff, Professor of Clinical Psychiatry at the University of Moscow, is announced. He was only forty-six years of age.

Infectious Diseases in New York.—We are indebted to the Sanitary Bureau of the Health Department for the following statement of cases and deaths reported for the two weeks ending September 29, 1900:

DISEASES.	Week end'g Sept. 22		Week end'g Sept. 29	
	Cases.	Deaths.	Cases.	Deaths.
Typhoid fever	87	22	129	20
Scarlet fever	34	2	70	2
Cerebro-spinal meningitis	0	3	0	5
Measles	34	4	17	2
Diphtheria	130	20	170	23
Laryngeal diphtheria (croup)	4	3	9	2
Tuberculosis	230	109	294	128

Marine-Hospital Service Health Reports.—The following cases of small-pox, yellow fever, cholera and plague were reported to the surgeon-general during the week ending September 29, 1900:

Small-pox—United States.

Port Safety, Alaska	Aug. 25, reported.		
Arapahoe County, Colorado	Aug. 9—Sept. 11.	3 cases	at Denver.
El Paso County, Colorado	Aug. 9—Sept. 11.	2 cases.	
Fremont County, Colorado	Aug. 9—Sept. 11.	3 "	
Garfield County, Colorado	Aug. 9—Sept. 11.	3 "	
Glenwood Springs, Colorado	Aug. 9—Sept. 11.	2 "	
Huerfano County, Colorado	Aug. 9—Sept. 11.	3 "	
Las Animas County, Col.	Aug. 9—Sept. 11.	4 "	
Pueblo County, Colorado	Aug. 9—Sept. 11.	21 "	
New Orleans, Louisiana	Sept. 15-22	6 "	2 deaths.
Houghton, Michigan	Sept. 8-15	2 "	
Torch Lake, Michigan	Sept. 8-15	2 "	
Cleveland, Ohio	Sept. 15-22	6 "	
Salt Lake City, Utah	Sept. 15-22	3 "	
Ashfield County, Wisconsin	Sept. 18 present..		
Bayfield County, Wisconsin	Sept. 18 present..		
Dane County, Wisconsin	Sept. 18 present..		
Eau Clair County, Wis.	Sept. 18 present..		

Small-pox—Foreign.

Prague, Austria	Sept. 1-8	1 case.	
Ghent, Belgium	Sept. 8-15		1 death.
Alexandria, Egypt	Aug. 28—Sept. 3.	1 "	
Cairo, Egypt	Aug. 18-26		3 deaths.
Liverpool, England	Sept. 1-8	3 "	
Lyons, France	Aug. 25—Sept. 1.		2 "
Paris, France	Sept 8		5 "
Bombay, India	Aug. 21-28		2 "
Calcutta, India	Aug. 11-26		18 "
Madras, India	Aug. 11-24		2 "
Vera Cruz, Mexico	Sept. 8-15		4 "
Moscow, Russia	Aug. 25—Sept. 1.		1 death.
Odessa, Russia	Aug. 25—Sept. 8.	7 "	1 "
Warsaw, Russia	Aug. 25—Sept. 1.		5 deaths.
Dundee, Scotland	Aug. 25—Sept. 1.	2 "	
Glasgow, Scotland	Sept. 7-14	31 "	
Madrid, Spain	Aug. 11—Sept. 1.		111 "

Yellow Fever.

Cienfuegos, Cuba	Sept. 22	1 case.	
Havana, Cuba	Sept. 8-15		9 deaths.
Vera Cruz, Mexico	Sept. 8-15		15 "

Plague.

Bombay, India	Aug. 21-28		64 deaths.
Calcutta, India	Aug. 11-25		136 "
Glasgow, Scotland	Aug 31—Sept. 14.	16 cases.	1 death.

Cholera.

Bombay, India	Aug. 21-28		408 deaths.
Calcutta, India	Aug. 11-25		29 "
Karachi, India	Aug. 19-29		13 "
Madras, India	Aug. 18-24		37 "
Yokohama, Japan	Aug. 25—Sept. 1	1 case.	

Naval Intelligence.—*Official List of Changes in the Medical Corps of the United States Navy for the Week ending September 29, 1900:*

ARMSTRONG, E. V., Assistant Surgeon. Ordered to report to the commandant of the New York Navy Yard for duty on the *Vermont.*

BELL, W. H., Assistant Surgeon. Relieved from additional duty at the Norfolk Hospital and ordered to continue duty on the *Vixen.*

DUNN, H. A., Assistant Surgeon. Ordered to report for duty on the *Dorothea,* October 1st, instead of proceeding home.

ELMER, M. K., Assistant Surgeon. Detached from the Boston Navy Yard and ordered to accompany a battalion of marines to Mare Island, California, and then to duty on the *Ranger.*

GRAVATT, C. U., Medical Director. Commissioned medical director from August 24th.

GROVE, W. B., Assistant Surgeon. Ordered to duty on the *Vermont.*

ODELL, H. E., Assistant Surgeon. Detached from the *Ranger* on reporting of relief and ordered to the Asiatic Station with a battalion of marines for duty, as relief of THOMPSON, J. C., Assistant Surgeon.

OHNESORG, K., Assistant Surgeon. Detached from the Naval Academy and ordered to the *Vicksburg.*

STEPHENSON, B. F., Surgeon. Detached from the *Baltimore* and ordered to examination for promotion at the Washington Navy Yard, thence home to await orders.

STUART, A., Assistant Surgeon. Detached from the *Fortune* and ordered to resume duties on the *Yankton.*

THOMPSON, J. C., Assistant Surgeon. Detached from the *Newark* on reporting of relief, then to proceed home and await orders.

Army Intelligence.—*Official List of Changes in the Stations and Duties of Officers serving in the Medical Department, United States Army, from September 22 to September 29, 1900:*

COOKE, ROBERT P., Acting Surgeon, United States Army, will proceed to Havana and report to the commanding officer of the transport *Crook* for duty as attending surgeon to New York City. He will, upon completion of this duty, sail by the first available transport to Havana and return to his station, Columbia Barracks, Cuba.

GIRARD, A. C., Major and Surgeon, United States Army, is detailed to make the physical examinations of volunteers at the Army General Hospital, Presidio of San Francisco, under provisions of G. O. 11, c. s., D. Cal., in place of SHAW, HENRY A., Captain and Assistant Surgeon, United States Army, relieved.

HAVARD, VALERY, Major and Chief Surgeon of the Division, will proceed to Rowell Barracks, Pasa Caballos, and Hamilton Barracks, Matanzas, Cuba, and make a medical inspection, and return to Havana.

LYON, PALMER H., Acting Assistant Surgeon, United States Army, will proceed to Santa Mesa Hospital, Manila, for duty, relieving AMES, ELWIN W., Acting Assistant Surgeon, United States Army, who will report to the commanding general, Department of Northern Luzon, for duty.

MAUS, LOUIS M., Major and Surgeon, United States Army, will proceed to Trinidad and vicinity, Province of Benguet, for the purpose of making an investigation of that section as to suitability for the establishment of a sanitarium and convalescent camp. He will also make an inspection of the Medical Department and the sanitary conditions at the following stations: San Fernando, Province of Union; Vigan, Province of Ilocos Sur; Laoag, Province of Ilocos Norte; Aparri, Province of Cagayan; Santa Cruz and Iba, Province of Zambales, Luzon, as well as other posts along the coast of Zambales and Bataan.

Insanity and Christian Science.—The *New York Times* for October 2d, which has already rendered good service in the cause of Scientific Sense *versus* Christian Science Nonsense, has the following well-put comment on the sad case of Dr. Lillian E. Abbott:

"There will be a disposition, we fear, to see in Dr. Lillian E. Abbott, whose sad case was rehearsed in a dispatch from Concord, N. H., which we published on Sunday, a typical victim of 'Christian Science.' Any such conclusion is unwarranted by the facts and therefore unjust. Miss Abbott studied medicine, obtained her degree of M. D. in the proper and orthodox fashion, and for several years practised her profession with success. She was, it is said, numbered among the prominent physicians of her city. Recently she took up with Eddyism, and abandoned all her old ideas as to the nature and cure of disease. Now she is in the New Hampshire Asylum for the Insane, under treatment for confirmed and dangerous melancholia. But it was not 'Christian Science' that sent her there. Her adoption of that crude and squalid cult was the first result of her mental breakdown, not its cause, and though of course no Eddyite will admit this, it is practically beyond question. A woman of her education and experience simply could not have been misled by either the facts or the fictions of 'Christian Science,' if her mind had not already been seriously affected, for, while in the possession of her faculties, she could not fail to understand exactly how the 'scientists' work their occasional miracles, or to appreciate the inadequacy of a system which deduces a vast mass of absurdities from a few uncomprehended facts and calls the produce a religion." The *Times* continues with the following admirably stated proposition: "This is not to assert that all, or even many, 'Christian Scientists' are insane. People who have never had opportunity or inclination to study the phenomena of suggestion and its influence over disease prove only their lack of a particular sort of knowledge when they venerate Mrs. Eddy as the discoverer of a new philosophy, and their credulity is no more remarkable, no more implies mental deterioration, than does acceptance of the statement that a nation's name on a piece of silver adds to the silver's value in a way which the name of a bird or a flower would not. But Dr. Abbott had a special education that forced her to see the emptiness of Mrs. Eddy's pretensions as long as reason remained unimpaired, and therefore her malady must have been far advanced when she, a real doctor, turned quack."

Hospital Endowments and New Buildings.—The United States Marine Hospital at Fort Stanton, New Mexico, for the treatment of tuberculosis, has proved such a success that the $30,000 appropriated by Congress has been placed in the hands of the supervising surgeon, Dr. J. O. Cobb, of the marine service, to be expended in alterations and the remodeling of the principal buildings. Government Architect Thomas has already completed the plans and specifications. A reading room, recreation room and laboratory, which will be one of the most complete in existence, devoted to the treatment of tuberculosis, will be added to the equipment.—The corner-stone of the Confederate annex to the State Hospital at Vicksburg, Miss., was laid recently. The annex cost about $6,000, and was built by the efforts of the Daughters of the Confederacy. It is for the special care of old Confederate soldiers.—A site has been procured for the new Jewish Hospital at St. Louis. It will be on Delmar Boulevard. The institution is to be constructed on the pavilion plan and will be fireproof throughout. It will accommodate 150 patients.—The corner-stone of the new Gibbs Building of St. Luke's Hospital, San Francisco, was recently laid with appropriate ceremonies. The contracts name the 1st of next January as the time when the building will be turned over to the board of directors. It will represent $50,000, all of which is at hand. The new building will contain thirty-eight beds for patients requiring surgical aid and two large operating rooms.—The State Commission appointed by Governor Roosevelt to locate a site for the new hospital for incipient tubercular patients has decided upon Big Clear Lake, near Saranac Inn Station. Dannemora was looked upon as a most acceptable place, but because of its notoriety as the prison home of insane criminals it was rejected.—Additional buildings for the Rochester (N. Y.) State Hospital are being considered. They have been a pressing need for some time. Plans for the new buildings will be prepared and submitted shortly. The buildings will be large and commodious, with all modern improvements. The capacity will be for at least 500 men. The present buildings will then be given over to the exclusive use of the women patients.—At the recent Boone Conference in Iowa it was voted to raise $50,000 as an endowment for the Methodist Protestant Hospital in Des Moines.—A wing is to be added this month to the Hebrew Hospital for Consumptives at Denver, Col. It will cost about $30,000, all of which has been raised by voluntary subscriptions of the members of the B'nai B'rith.—The Willard Hospital for the Treatment of Dipsomania and Sarcomania at Bedford, Mass., was opened recently. It is expected that another large building will be erected near it in the spring.—Dr. Robert W. Hill's report to the State Board of Charities recommends the building of a new hospital for Bellevue. The present buildings are inadequate, he says, and filled with disease germs.—Plans have been completed for a three- or four-story brick research laboratory for the University of Buffalo to contain one of the finest pathological equipments in the country. It is expected that it will be completed and ready for work by next spring.

Charitable Bequests by Dr. J. M. Da Costa.—The will of the late Dr. J. M. Da Costa, emeritus Professor of Practice of Medicine and Clinical Medicine at Jefferson Medical College, Philadelphia, has been admitted to probate. The charitable bequests dispose of a large part of the estate among the following institutions: Pennsylvania Hospital, $5,000, to endow a bed; Children's Hospital, for the endowment of a bed, $5,000; to the College of Physicians, $5,000, for the endowment of the Publication fund; University of Pennsylvania, $5,000, for the professors' retiring fund; and Sunday Breakfast Association, $1,000. He also bequeaths his valuable and extensive medical museum, including charts, models, medical pictures and drawings, to the Jefferson Medical College. This collection is said to be the greatest of its kind in this country. His medical library, which is also an extensive collection of the best books obtainable in this country and Europe, is given to the College of Physicians.

The Michigan Curriculum for Medical Students.—The Michigan State Board of Medical Examiners has notified all the medical colleges of the State of the standards which will be set for them. The following curriculum is laid down:

"Lectures and Teaching—180 hours in anatomy, 200 hours in physiology, 150 hours in chemistry and toxicology, 100 hours in pathology, 150 hours in therapeutics, 60 hours in histology, 30 hours in hygiene, 390 hours in practice of medicine, 195 hours in surgery, 120 hours in obstetrics, 30 hours in gynæcology, 60 hours in bacteriology and 15 hours in medical jurisprudence.

"Laboratory Work—240 hours in anatomy, 80 hours in physiology, 240 hours in chemistry and toxicology, 80 hours in pathology, 80 hours in histology, 48 hours in surgery, 120 hours in bacteriology. The clinical work to be reviewed by a committee of the board."

Society Meetings for the Coming Week:

Monday, *October 8th:* New York Academy of Medicine (Section in General Surgery); New York Academy of Sciences (Section in Chemistry and Technology); New York Medico-historical Society (private); New York Ophthalmological Society (private); Lenox Medical and Surgical Society, New York (private); Harlem Medical Association of the City of New York; Gynæcological Society of Boston; Burlington, Vermont, Medical and Surgical Club; Norwalk, Connecticut, Medical Society (private).

Tuesday, *October 9th:* New York Academy of Medicine (Section in Genito-urinary Surgery); New York Medical Union (private); New York Obstetrical Society (private); Buffalo Academy of Medicine (Section in Medicine); Kings County, New York, Medical Association; Rome, New York, Medical Society; Medical Societies of the Counties of Albany (semi-annual), Greene (semi-annual, Cairo), Jefferson (quarterly), Oneida (semi-annual, Rome), Ontario (quarterly), Rensselaer, Schoharie (semi-annual), and Tioga (quarterly), New York; Medical Association of Northern New York (annual, Malone); Litchfield, Connecticut, County Medical Society (annual); Newark (private) and Trenton, New Jersey, Medical Associations; Bergen and Cumberland (semi-annual), New Jersey, County Medical Societies; Clinical Society of the Elizabeth, New Jersey, General Hospital and Dispensary; Northwestern Medical Society of Philadelphia; Practitioners' Club, Richmond, Kentucky; Richmond, Virginia, Academy of Medicine and Surgery.

Wednesday, *October 10th:* New York Pathological Society; New York Surgical Society; American Microscopical Society of the City of New York; Society of the Alumni of the City (Charity) Hospital; Society for Medical Progress, New York; Tri-States Medical Association (Port Jervis), New York; Pittsfield, Massachusetts, Medical Association (private); Franklin (quarterly, Greenfield) and Hampshire (quarterly, Northampton), Massachusetts, District Medical Societies; Middlesex, Massachusetts, South District Medical Society (Cambridge); Kansas City, Missouri, Ophthalmological and Otological Society; Philadelphia County Medical Society.

Thursday, *October 11th:* Society of Medical Jurisprudence and State Medicine, New York; Brooklyn Pathological Society; New York Laryngological Society; Medical Society of the County of Cayuga, New York; South Boston, Massachusetts, Medical Club (private); Pathological Society of Philadelphia.

Friday, *October 12th:* New York Academy of Medicine (Section in Neurology); Yorkville Medical Association, New York (private); Brooklyn Dermatological and Genito-urinary Society (private); German Medical Society of Brooklyn; Medical Society of the Town of Saugerties, New York (anniversary).

Saturday, *October 12th:* Obstetrical Society of Boston (private); Worcester, Massachusetts, North District Medical Society.

Births, Marriages, and Deaths.

Born.

May.—In Blenheim, S. C., on Tuesday, September 18th, to Dr. and Mrs. Charles R. May, a daughter.

Married.

Blickhan—Duker.—In St. Louis, on Wednesday, October 3d, Dr. A. J. Blickhan and Miss Nina Duker.

Bullard—Reynolds.—In Boston, on Tuesday, September 25th, Dr. William Norton Bullard and Miss Mary Robbins Reynolds, daughter of Dr. John Phillips Reynolds.

Carr—French.—In Lynn, Massachusetts, on Wednesday, September 26th, Dr. George Byron Carr and Miss Alice May French.

Dickinson—Shurtleff.—In Chicago, on Wednesday, September 26th, Dr. Stanley Burr Dickinson and Miss Nellie Comings Shurtleff.

Lowenstein—Brush.—In Lafayette, Indiana, on Sunday, September 30th, Dr. E. J. Lowenstein, of Birmingham, Alabama, and Miss Julia Brush.

Died.

Albert.—In Vienna, on Wednesday, September 26th, Dr. Edward Albert, of the University of Vienna, in the fifty-ninth year of his age.

Blodgett.—In Cooperstown, New York, on Sunday, September 23d, Dr. Thomas S. Blodgett, in the seventy-ninth year of his age.

Ingram.—In Cleveland, on Monday, September 24th, Dr. James A. Ingram, in the forty-second year of his age.

Jervey.—At "St. Helen's," Powhatan County, Virginia, on Friday, September 21st, Dr. Henry Jervey, formerly of Charleston, S. C., in the fifty-ninth year of his age.

Lazear.—At Columbia Barracks, Quemados, Cuba, on Tuesday, September 25th, Dr. Jesse W. Lazear, United States Army.

Purple.—In New York, on Sunday, September 30th Dr. Samuel Smith Purple, in the seventy-eighth year of his age.

Obituaries.

SAMUEL SMITH PURPLE, M. D.,

NEW YORK.

Dr. Samuel Smith Purple died at his residence, 36 West Twenty-second street, New York, on Saturday, September 29th, at the age of seventy-eight.

Dr. Purple was born in Lebanon, Madison County, N. Y., June 24, 1822, and graduated at the medical department of the University of the City of New York in 1844. In 1846-48 he became physician at the New York City Dispensary, and was ward physician under the board of health during the cholera epidemic of 1849. He was vice-president of the New York Academy of Medicine from 1870 to 1875 and its president from 1876 to 1880, and was made second vice-president of the New York Genealogical and Biographical Society in 1888.

He was the author of several contributions to periodical medical literature and of an able address on medical libraries, which was delivered on the occasion of his installation as president of the New York Academy of Medicine in 1877. Dr. Purple's presentation of 4,000 volumes to the New York Academy of Medicine was the beginning of that institution's library. At the time of his death he owned one of the largest private libraries in New York.

Pith of Current Literature.

Albany Medical Annals, September, 1900.

A Description of a New Incubator Employed in the Children's Hospital at Graz. By Professor Theodor Escherich, of Graz, Austria. Translated for the *Annals* by Dr. L. K. Shaw, Albany, N. Y.—In the last half year out of sixty-five infants received at the Anna Kinderspital from the Foundling Asylum, forty-five weighed less than six and a half pounds. Such children are seriously affected by changes in temperature and react to cold in a very sensitive manner. Ordinary incubators employed to maintain a constant high temperature are open to severe objections. In order to nurse and care for the infant it must be taken out of the incubator and the child is exposed to dangers from which it should be protected. The author decided to build an "incubator room" (*brutkammer*) instead of using a number of single incubators. This was constructed large enough to accommodate several infants and to allow the wet nurses and attendants to enter. The dimensions are: height six and one-half feet, length eight and one-half feet, width four feet. The floor is covered with cork tiles. The entrance is at one end and opens into a small anteroom and a second chamber opens into the main chamber. The necessary amount of heat is furnished by a coil of hot-water pipes connected with the house-heating system, in which about forty gallons of water circulate. A shelf placed over the coil of pipes supports the infants and their bedding. The temperature is regulated at about 86° F., and electrical contact thermometers signal whenever the temperature falls to 84° F. or rises over 94° F. In the former case the water is heated by a small stove in an adjoining room. The temperature is lowered by opening the ventilators. A large tube conducts fresh air from outside the building to the floor of the chamber underneath the water pipes, where it has to pass through an absorbent cotton filter. There is also an apparatus which was invented by Professor Pfaundler by means of which it is possible to control the amount of moisture in the air with much accuracy. This is most important, as the mucous membrane of new-born infants is very sensitive, and regulating the moisture does much to bring about the good condition and contentment which characterize the infants who spend a long time in this room.

A sojourn in the incubator is indicated for children with abnormally low body temperatures. This occurs most frequently in weak and premature infants and in those who have suffered from exposure. The task of the incubator is by no means completed when a normal temperature is restored. The regular degree of warmth and the uniform moisture are of the greatest benefit. The infants are protected from any changes in the temperature and humidity and can move freely and without restriction. Weak new-born babies with normal or even elevated temperatures improve markedly by a residence in the incubator. Besides the favorable conditions mentioned above there is an essential advantage in that much loss of energy is prevented. This is shown by a more rapid gain in weight and in greater resistance to infection. The author is convinced of the latter claim by a series of observations and experiments. A case is reported.

Some Points in the Making of a Plaster of Paris Jacket. By Dr. J. V. Hennessy.—The author describes the case of a girl twenty-two years of age, who weighed 130 pounds. She had Potts's disease of the lower dorsal vertebræ and paraplegia of two years' standing. Ordinary methods of applying a plaster jacket by suspension failed through syncope; in the recumbent position faulty position spoiled them, and the patient could not sit.

The mode adopted in this case was to make a form of plaster of Paris from numerous measurements giving width, depth and girth at hips, waist and bust. On this an ordinary knitted cylinder was stretched and the plaster applied as upon the human form. The advantages of this method of making a plaster of Paris jacket are numerous, although the trouble and care are considerable. In the first place certain modifications of form can easily be made, as may be seen in this specimen. The dorsal deformity is exaggerated, leaving a considerable space so that the spinal protuberance may not rub against the jacket. Next, extension of the trunk may be increased by increasing the length between the crests of the ilium and the axilla. The waist measurement may be diminished and gradually widened upward, giving the support to the trunk which is so necessary, and any other modification of form which may, in the judgment of the maker, add to ease or efficiency. Again, a jacket may be applied to a form so built up with ease and deliberation, which is impossible with the often tired and moving patient. The other points apply to a jacket, whether made upon a form or upon a patient. First the ordinary plaster of Paris roller bandage being used, a jacket is made as under ordinary conditions, except that much fewer thicknesses are employed, say, six or seven thicknesses of crinoline and plaster. This having been allowed to set, is cut up in the median line, removed and allowed to thoroughly dry. We then have an extremely light jacket which would certainly have little sustaining power. It is then covered with sheep skin fastened on by applying glue (Page's prepared) to the inner leather surface and to the surface of the jacket. First, a binding about two inches wide covers the cut median edges, then an encircling piece of leather is applied to the upper third of the jacket, the edges projecting above being turned inside and there forming a binding for the top. The same is done for the bottom third, these pieces reaching to the median line and extending so as to form a double thickness over the binding in the median line. To this, shoe hooks are fastened for ease in lacing. The leather used is a thin sheep skin of inferior quality, a whole skin costing only fifty cents. The leather, glue, and plaster combined form a light, stiff, and decidedly durable corset. In certain parts where more strength may be deemed necessary one or more extra thickness of leather may be easily applied, as in this jacket, where an axillary pad may be seen under the binding.

Nursing as a Profession. By Mrs. Hunter Robb.

Address to the Graduates. By Dr. A. Vander Veer.

Address and Presentation of Diplomas. By Hon. William L. Learned, LL. D.—The three foregoing addresses were delivered at the graduating exercises of the Class of 1900 of the Albany Hospital Training School for Nurses.

The Report of a Case of Gastric Ulcer, with Presentation of Post-mortem Specimen. By Dr. J. L. Archambault.

Bulletin of the Johns Hopkins Hospital, September, 1900.

Morbid Conditions Caused by Bacillus Aerogenes Capsulatus. By Dr. William H. Welch.—Instances of the presence of free gas in parts of the body where it does not normally occur have been for many years the subject of much speculation. Though various bacteria may be concerned in this phenomenon, the preeminence of the *Bacillus aerogenes capsulatus* as the causative factor is now established.

Dr. Welch effectually removes the confusion which may have existed in regard to priority of publication, and it seems settled that his observations, in November, 1891, antedated all others in this connection. The name *Bacillus aerogenes capsulatus* should stand, therefore, in preference to that of *Bacillus phlegmones emphysematosæ* given by Fraenkel. The micro-organism in question is a rather coarse, non-motile, anaerobic bacillus; grows anaerobically on all ordinary culture media, at room temperature, but preferably at body temperature; liquefies gelatin slowly, forms spores constantly; generates gas by fermentation from sugars and also from proteids. The distinction is easily made between *Bacillus aerogenes capsulatus* and the bacillus of malignant œdema, while the *Bacillus emphysematis vaginæ* of Lindenthal is undoubtedly identical with the *Bacillus aerogenes* of Welch. Its natural habitat is the intestinal canal and the soil. In autopsies upon pregnant and puerperal women, and especially after death from abortion and acute sepsis, it has been observed.

Although it is a much-mooted question whether the effects of this bacillus in the body have been produced before or after death, the author believes that it is highly improbable that an anaerobic bacillus can multiply in the circulating blood. However, this bacillus is much less sensitive to the presence of oxygen than many anaerobes. In the liver, spleen, and most other internal organs it has been demonstrated that it does multiply. As a cause of emphysematous gangrene the *Bacillus aerogenes capsulatus* is most to be dreaded. It is extremely doubtful if the bacillus of malignant œdema can produce a similar anatomical and clinical affection. The author's experience coincides with that of Fraenkel in this particular. The gas may appear in the tissues as early as eight hours after the injury. If the diagnosis is made early, free incisions with immediate continuous bath treatment should be tried. If the infection is recognized late, *amputate at once.*

Its presence in emphysema of the fœtus, puerperal endometritis, emphysema of the uterine wall, and puerperal gas-sepsis is considered. In this connection it may be noted that, though the author does not deny the possibility of fatal air embolism from the uterus, the "foundations of this doctrine have been seriously shaken by our discovery and investigations of the gas bacillus."

Infections derived from the urinary tract and the gastro-intestinal canal are luminously treated.

On the Histology of the Islands of Langerhans of the Pancreas. By Eugene L. Opie.—Formed of cells having the same origin as those of the glandular acini, the islands of Langerhans are independent of the secreting apparatus and in intimate relation with the vascular system. In the splenic end of the cat's pancreas their position within the lobule is definite—one to each lobule. They are, as a rule, more numerous in the splenic extremity than elsewhere. Prolonged stimulation of the gland does not, as maintained by Lewaschew, transform groups of acini into islands of Langerhans.

The Distribution of Connective Tissue in New Growths. By W. C. White, M. B.

On the Relation of the Electrical Conductivity of Blood Serum to its Alleged Bactericidal Power. By Emma Lootz and Alice Weld Tallant.

A Contribution to the Study of Malignant Tumors Arising in Congenital Moles. By Dr. R. H. Whitehead.

Inorganic Ferments. By Harry C. Jones, Ph. D.—This article refers more particularly to the analogy between the action of colloidal platinum and organic ferments.

If this analogy is deep-seated, our knowledge of the complex organic ferments should be greatly increased by the study of this exceedingly inorganic ferment.

The Sterilization of Catgut. By Dr. G. Brown Miller.

Medical Record, September 29, 1900.

Some Personal Observations on the Effects of Intrapleural Injections of Nitrogen Gas in Tuberculosis. By Dr. Henry P. Loomis.—As it has been estimated that three-fourths of the cases of primary pleurisy are tuberculous, Dr. Loomis surmises from these statistics, based upon the subsequent histories of cases of pleurisy with effusion, that the explanation at least of some of the pleurisies is that they have developed secondarily to a slight pulmonary lesion of the lung, which has been quickly rendered quiescent and possibly cured by the pressure of the effusion. The resulting effect upon pulmonary tuberculosis, when empyema develops upon the affected side, is much more favorable than when there is a serous effusion. Again, it is a well-known fact that pneumothorax supervening in a case of pulmonary tuberculosis produces salutary changes in the tuberculous process, that not only ameliorate the general symptoms, but often produce a cure. The evident fact demonstrated in these three classes of cases is that *compression of the lungs has a beneficial effect upon pulmonary tuberculosis.*

As a result of these observations, and of reading Dr. Murphy's article, The Surgery of the Lungs, the author has, during the past two years, made observations upon eighteen selected cases in which nitrogen gas injections, given to produce compression, have been used by himself. He inserts the needle behind the posterior axillary line in about the eighth interspace, and the quantity of gas injected varies from 50 to 200 cubic inches. The gas remains unabsorbed for from six to eight weeks, and to obtain the best result he thinks continual compression should be maintained for six months. As a result of this treatment, he has found a marked improvement in the subjective symptoms; and he is inclined to believe that in all classes of cases the treatment will be found beneficial. Expectoration, fever, and cough have been seen to disappear, while the improvement in weight has been so universal as to be astonishing. The local improvement has not been so marked as has the constitutional. Cases are given in detail.

Electricity in Gynæcology and the Present Reluctance of Gynæcologists to Use Electricity. By Dr. Robert Newman.—Dr. Newman believes that we need a means for better education of medical men in electrotherapeutics, and advocates the establishment of a school for this purpose.

A Cure of a Case of Hypertrophic Alcoholic Cirrhosis of the Liver, with Remarks. By Dr. M. Luzzatto.—From the study of this case, together with that of the cases reported in a very extensive bibliography, the author notes three prominent facts: (1) Alcoholism is by no means the only cause of cirrhosis of the liver; (2) alcoholic cirrhosis of the liver is curable; the hypertrophic form more frequently, but the atrophic also; (3) cirrhosis very often shows symptoms characteristic of an infectious disease.

In the present case—a true case of hypertrophic cirrhosis of the liver due to alcoholism—a complete cure was effected with milk, potassium iodide, and diuretics. The cure probably depended upon a regeneration of the damaged cells of the organ.

The Cooperation of the Medical Profession of the United States with the National Confederation of State Medical Examining and Licensing Boards in Establishing Inter-State Reciprocity for the License to Practise Medicine. By Dr. Emil Amberg.

Treatment of Fractured Patellæ. By Dr. William M. Trimble.

Medical News, September 29, 1900.

Medicine and Superstition. By Dr. G. W. Guthrie. —A study of Dowieism, Osteopathy, Christian Science, divine healers, etc.

Some Studies in Metabolism in Chronic Nutritional Disease. By G. W. McCaskey, A. M., M. D.—Vital phenomena of every sort are reducible to chemical formulæ. In the study of these processes we are made to realize how imperfect is our knowledge, and how sharp are its limitations. We have mastered but the beginning of the array of chemical processes which cause the phenomena of cellular and somatic life, but progress along this line will do as much, if not more, than anything else, toward furnishing a clear and lucid comprehension of diseased processes. In this paper the author, from his own experience, presents a few facts illustrative of the high value to be attached to investigations along these lines. He selects particularly the consideration of the urine, as forming a convenient, accessible, and faithful reflex of the chemical processes designated by the blanket term "metabolism." He believes we are now fully justified in regarding every molecule found in the urine as identical with one which preexisted in the blood, and goes on to consider the end-products of nitrogenous waste around which, in seeking for evidences as to the state of general metabolism, the greatest interest centres. He divides chronic nutritional disease of various sorts into three groups, characterized respectively by: (1) hypo-azoturia, (2) hyperazoturia, and (3) ortho-azoturia, and in illustration of the three groups gives cases in point.

He accepts with suspicion the prevailing view that uric acid is derived principally from the nuclein of the white blood-cells, and opposes to this view some clinical observations which cannot be explained in accordance with it.

The Art of Keeping Cool, with Special Reference to the Proper Use of Water. By Dr. Ralph Wait Parsons. —The frequent internal use of small quantities of cold water improves the appetite, increases peristalsis, and relieves constipation while stimulating the heart, liver, kidneys, and skin to a healthy action. The use of the shower bath as a morning custom is greatly commended, and the sense of well-being which it inaugurates is dwelt upon. The need of public baths in large cities is also emphasized.

The Dose of Potassium Iodide, with Reference to its Untoward Effects upon the Upper Respiratory Tract. By Dr. Lewis S. Somers.—A consideration of some cases, with the conclusion that, the drug seemingly exercises in adults a specific action on the mucous membrane of the upper air passages, a single dose frequently producing a transient coryza and congestion of the palate and pharynx.

A Rare Case of Injury to the Membrana Tympani. By Dr. Thomas D. Tuttle.—The ubiquitous hairpin, open end forward, entered the auditory canal while the patient was tossing around in sleep, and caused a punctured wound in the anterior inferior wall thereof. The case was treated on antiseptic principles, with recovery in eight days.

Boston Medical and Surgical Journal, September 27, 1900.

A Study of the X-ray Plates of One Hundred and Forty Cases of Fracture of the Lower End of the Radius. By Dr. E. A. Codman.—The points particularly emphasized are: that true Colles's fracture formed but forty-six per cent. of the cases, while concomitant fracture of the ulnar styloid occurred in at least sixty-two per cent. For the proper application of padding and splints, a knowledge of the position of the fragments is necessary. If the X-ray shows that deformity is still present after the splints have been applied, ether should be given and another energetic attempt at reduction made. In true Colles's fracture, pressure over the anterior edge of the upper fragment should be avoided, and cross traction should be used to correct the radial displacement of the lower fragments. Finally, statistics of the results of Colles's fracture are not of value *unless the pathology of each case is determined by a skiagram.*

Traumatic Joints. By Dr. Homer Gage.—The author's conclusions are that, (1) all injuries to joints, accompanied by loss of function, are always attended by more or less laceration of the tissues in or about the joints; (2) the delays in the restoration of function are due in most instances, not to any complicating diathesis, but to the changes incident to the repair of these lacerations and their effects; (3) such delays are best avoided by an early resort to massage and active or passive motions, and are favored by a too long continuance of rest and fixation. When such delays have occurred, they are best overcome by more vigorous and persistent manipulation, supplemented by the application of heat or such other agents as may best stimulate the local circulation and favor the elasticity of the tissues.

A Critical Review of Thirty Cases of Pyosalpinx. By Dr. G. S. Whiteside and Dr. W. J. Walton.

Post-operative Hæmatemesis. By Dr. Kenelm Winslow.

Philadelphia Medical Journal, September 29, 1900.

Appendicitis. By Dr. Samuel Lloyd.—An interesting general article on the subject, with a brief history of appendiceal surgery. "There can be no doubt in regard to the advisability of operating in appendicitis."

On Some Cases of Pleural Exudate with the Physical Signs of Pneumonia. By Dr. Herman B. Allyn.—Evidently there is no pathognomonic sign by which a pleural exudate can be recognized. The only safe way is to examine for all the physical signs, and not to expect any one sign to have a fixed and definite value. The value of a particular sign must be determined with reference to the special case under study, and in connection with all the other signs. The X-rays are of great service in the diagnosis of pleural effusion, and of the amount of fluid present. Williams says that when the effusion is large, no more rays pass through it than through the liver, and the outlines of the diaphragm, ribs, and heart are obliterated on the side of the effusion. With a small effusion the outlines low down in the thorax only are ill-defined.

A Digest of Two Hundred Cases of Pneumonia. By Dr. C. Z. Weber.

Pylorectomy for Adenocarcinoma, with Report of a Case. By Dr. Joseph H. Branham.—The remarks accompanying the case are interesting. The author believes it the height of folly to fold our arms and wait for some other means to turn up for the destruction or prevention of cancer. Let us rather try to improve known methods of attack. Early diagnosis should be followed by operation, and the stomach specialist helps us in the former, though reliance should not be placed in him for a cure. *Practically all cases are suited to operation at some period of their existence.*

Inhibition of the Heart as an Aid in Diagnosis. By Dr. Albert Abrams.—The inhibition manœuvre will cause organic cardiac murmurs to become faint, and, in some cases, inaudible. Hæmic murmurs are more readily inhibited than organic murmurs. When a transmitted murmur can be inhibited, the tone which it masks can be auscultated. Exocardial murmurs are easily influenced by the inhibition manœuvre. In irregular action of the heart or in delirium cordis, the inhibition manœuvre, by momentarily inhibiting the rapidity of the heart, renders signal service in determining the time of a murmur; the manœuvre being practically in its effects like the physiological action of digitalis on the heart.

Hæmorrhoids: Ætiology, Pathology, and Treatment. By Dr. J. William J. Doyle.

Some Clinical Effects of Ammonio-Formaldehyde. By Dr. Edward L. Keyes, Jr.

Journal of the American Medical Association, September 29, 1900.

Technique of Vaginal Extirpation for Cancer of the Cervix by Ligature Only. By Dr. Rufus B. Hall, A. M. —The great advantage in operating with a ligature lies in the fact that the peritonæum can be closed as accurately after the operation as in a median section. Long before pus is formed, this is closed by plastic exudation, thus closing the cavity from danger of infection. It is advisable to allow the gauze packing to remain for three or four days. In over one hundred operations by the author not a single case of infection or obstruction has occurred. The details are given *in extenso.*

Abdominal versus Vaginal Hysterectomy for Uterine Carcinoma. By Dr. John B. Deaver.—Another contribution to the literature of this much discussed topic. The author seems to favor the vaginal route, but states that it is only applicable in those cases where the carcinomatous process is strictly confined to the vaginal portion of the cervix, the cervical or uterine canal, and where the uterus is freely movable. In cases where there are adhesions fixing the organ, or where there is or has been inflammation or fixation of the appendages, he believes the abdominal operation to be the safer, easier, and more rational procedure. Any enlargement of the uterus vastly increases the difficulties of vaginal hysterectomy.

Importance of Early Recognition of Cancer of the Uterus. By Dr. Wm. H. Humiston.

Operative Treatment of Cancer of the Uterus. By Dr. William R. Pryor.—The object of this paper is to show, as forcibly as possible, "the uselessness of vaginal hysterectomy," and to urge the necessity of reviewing our work and adopting that operation which will enable us to make the broadest dissection, to remove all tissue in which recurrence is liable to take place, in a bloodless field, and in such a way as will insure local cleanliness and prevent introduction of germs into the absorbents during the operation.

Ætiology of Scarlatina. By Dr. William J. Class.—The author makes particular reference to the work of Baginsky and Sommerfeld in connection with the diplococcus of scarlet fever, and establishes the justice of his claim to priority of publication. He demonstrates that the diplococcus of scarlatina fulfilled all of Koch's laws, and he feels convinced that unprejudiced and painstaking investigators will confirm his results.

Lancet, September 15, 1900.

Tuberculous Lesions from a Clinical Point of View. By Edmund Owen, F. R. C. S. (Abstract of an address delivered before the Canadian Medical Association, September 13, 1900).—The writer calls attention to the favorable course which undoubted and severe tuberculous disease may run without active surgical intervention, as seen in old-standing hip-joint and spinal disease. He is opposed to the forcible straightening of carious spines, as it is obvious that in straightening the angle of the deformity, the tuberculous ulcer of the vertebræ must be widely opened out and the rigid support of the cemented vertebral arches broken down. The proper treatment of early spinal disease is absolute and uninterrupted rest in bed, and he condemns the modern ambulatory treatment of this affection. In speaking of prophylaxis the writer suggests the desirability of preventing the marriage of tuberculous subjects, and believes that the question is one that will be deliberately approached and dealt with in the near future.

The Prevention and Treatment of Post-partum Hæmorrhage. By Dr. J. W. Byers.—The causes of post-partum hæmorrhage may be grouped under two heads: (a) Hæmorrhage due to uterine atony; (b) Wounds of the parturient canal without any necessary inertia. The great majority of cases come under (a). Among the conditions which lead the accoucheur to suspect the onset of post-partum hæmorrhage are: 1. History of hæmorrhage at previous confinements, rapidly succeeding pregnancies, want of exercise, elderly primiparæ and pre-existing metritis. 2. Overdistention of the uterus, myomata, etc., preventing contraction, albuminuria, extreme mental depression and excitement of the vascular system. 3. Strong, quick pains in the second stage of labor, with long intervals and a rapid, jerking, low-tension pulse. The use of chloroform has no effect in causing post-partum hæmorrhage. The two measures which should be adopted in every case to prevent post-partum hæmorrhage are: (1) The proper management of the third stage of labor; and, (2) the important principle never to deliver in the absence of pains. As to actual treatment the first measure to be adopted is external uterine massage, followed in order by the hot-water douche, introduction of the aseptic hand into the uterine cavity for the removal of the placenta or clots, and gauze plugging of the uterus. The author does not approve of bimanual compression or of the injection of perchloride of iron. He has had no experience with the method of checking hæmorrhage by the drawing downward of the uterus with tenaculum forceps. All wounds and lacerations should be stitched up. The subsequent anæmia, if severe, should be treated by saline transfusion direct into the veins.

The Chemical Examination of Gastric Contents. By F. Shufflebotham, M. B.—The writer reports the analyses of gastric contents in twelve cases of carcinoma of the pylorus, and after describing his methods, which are not new, brings out the following points: The absence of free hydrochloric acid was demonstrated in all the cases, but physiologically effective hydrochloric acid could be found without exception in all cases. Lactic acid was present in all the cases on some occasion or another, but the absence of lactic acid does not positively exclude carcinoma. By "free" hydrochloric acid is meant acid in combination with proteids, for the author has found absolutely free hydrochloric acid but once in 200 specimens of normal gastric contents. The normal acid reaction of the gastric juice is due to the presence of these hydrochlor-proteids. An alkaline reaction is only found when the patient has been taking alkaline drugs or when a pancreatic fistula is opening into the stomach.

A Case of Total Gastrectomy. By Dr. V. de Carvalho.—The author reports the case of a woman aged forty-six years, upon whom he performed total gastrectomy for malignant tumor of the pylorus. The operation was performed on March 26, 1900, and lasted one hour and twenty minutes, leaving the patient in a state of profound shock. She improved steadily and nine days later all was going well. Primary union of the abdominal wound had taken place and the patient had a ravenous appetite. The pylorus and cardiac end of the stomach were sutured with fine silk in a double row, as advised by Hartmann and Terrier.

Hysterical Somnolence and States of Double Consciousness. By Dr. E. M. N. Williams.—The writer discusses the phenomena of sleep and dreaming, and of the hypnagogic or half-awakened state, and their relations to hysterical and hypnotic conditions. In hysterical and post-epileptic conditions the same hypnagogic state of double consciousness is often very marked. The patient sees and perceives everything but is wanting in associated ideas. He cannot correlate facts and is therefore in a peculiarly suggestible state. The writer suggests that these phenomena are due to some irregular distribution of vasomotor tone, affecting also the vessels of the brain.

A Note on Thrombosis in the Veins of the Pelvis and Lower Extremities after Operations. By K. G. Lennander, Hon. F. R. C. S.—As thrombosis is caused by slowing of the blood-stream and local vascular changes, the writer recommends that after every herniotomy or abdominal operation the patient's bed should be raised at its lower end from four to ten inches, in order mechanically to assist the venous blood in its flow from the extremities toward the heart, and thus to prevent thrombosis. If any varices exist at a point on the distal side of the operation wound in a lower extremity, the part should be bandaged from the foot to such point and the foot of the bed elevated.

Heatstroke in India. An Examination of some Statistics Relating thereto. By W. J. Buchanan, M. B.—"The statistics of the British army in India show that heatstroke is most fatal and most prevalent where the heat is greatest and most oppressive, and at the time of the year when these influences are at their maximum. It will require much more evidence than has yet been produced to make those who have had experience of the disease in India accept a microbial or other cause which seeks to minimize the great and predominating influence of fierce and continuous heat."

Poisoning by Carbonmonoxide. By Dr. C. R. Elgood.—The author reports the cases of two women who were overcome by carbonmonoxide while at work in a large laundry provided with a stove and a good-sized hot-air chamber for drying clothes. In both cases the bowels had moved involuntarily. The elder woman was moribund when found and died shortly after. The other woman was groaning and crying continuously; her pupils were dilated; breathing rapid and noisy; no pulse was present at the wrist. There was present a rapid semiflexion and pronation of both forearms. This patient soon improved and made a rapid recovery. The autopsy in the other case showed nothing peculiar beyond a rose-red coloration of the organs.

General Nervous Shock, Immediate and Remote, after Gunshot and Shell Injuries in the South African Campaign. By M. R. Finucane, M. R. C. S.—The writer reports nine cases with similar symptoms affecting the nervous system, which illustrate some of the results, immediate and remote, that have been noticed as occurring in soldiers invalided home from the front. They are cases of functional impairment of nerve sense and motor power, associated with psychical symptoms akin to nervous shock or those observed after railway accidents. These nerve symptoms do not bear any ratio to the extent or size of the wounds inflicted, but are more common in injuries of the lower extremities and head. The implication of nerves or their sheaths is not a marked feature. The prognosis in such cases, of recovery of the patient's nervous system, is extremely unsatisfactory.

British Medical Journal, September 15, 1900.

A Discussion on Puerperal Fever in Relation to Notification. By Dr. D. B. Hart and others.—Dr. Hart is strongly in favor of notification of puerperal fever, provided it does not begin and end in mere registration. He hopes that notification will lead to municipalities aiding the physician in such cases, by providing a properly equipped hospital and by supervision of nurses and midwives. The objections to the notification of puerperal fever are: (1) the difficulty of defining what one means by puerperal fever; (2) the risk of the statistics being misleading from errors, unavoidable or otherwise, in diagnosis; (3) the supposed unwillingness of practitioners to notify unless in cases likely to end fatally. The advantages of notification are: (1) statistical information as to the frequency of this condition and (2) help in prevention by putting the medical officer on the track of careless midwives and nurses. More than this cannot be expected.

The majority of those taking part in the discussion agreed as to the advisability of notification. A few objected to it on the ground that it might cause great injury to the attending physician.

Cephalotripsy for the after-coming Head. By J. H. Targett, F. R. C. S.—The writer reports the case of a primipara, aged twenty-nine, in which the above-mentioned unusual operation was performed. She was a rickety dwarf, barely four and a half feet high, with a true conjugate diameter of the pelvis of two inches and three-quarters. As the pains were slight, version was performed, but it was found to be impossible to deliver the after-coming head. The suboccipital region of the child's skull was perforated and the upper blade of the cepholatribe inserted, the lower blade being in apposition with the face of the child. In this way the base of the skull was crushed in its antero-posterior diameter. The occiput was then rotated to the front and the head easily delivered. The woman made a good recovery.

Observations on Human Placentation in its Second Stage. By Dr. C. van Tussenbroek.—From the study of sections of the human placenta from the third to the sixth month, the writer arrives at the following conclusions: 1. The macroscopical form of the human placenta is accomplished at about the sixth month of pregnancy. 2. At that period the decidua reflexa has almost entirely disappeared. 3. The reduction of the decidua reflexa is the effect of mechanical pressure. 4. The reduction of the villi of the chorion leve is chiefly effected by the obliteration of the intervillous spaces between chorion and reflexa.

A Discussion on the Natural History of Fibroids and Recent Improvements in their Treatment. By Alban Doran, F. R. C. S., and others.—Mr. Doran discussed the present state of our knowledge as to the nature of uterine fibroid. It was not a fibroma, but was always more or less of a myoma, *i. e.*, it consisted largely of plain uterine muscle fibre. Hence the beneficial action of ergot in many cases. The relation of the ovaries to fibroid disease of the uterus was not fully understood; in many cases their removal checked the hæmorrhages, but in others it did not. Nor were we clear as to the nature of the hæmorrhages observed in fibroid disease. There was no rule of prognosis as to the growth of fibroids; they were the only variety of pelvic tumor which might remain absolutely stationary. The majority of fibroids gave no trouble after the menopause, which was usually deferred until after the fiftieth year. As to treatment, a majority of fibroids required no operative treatment. Where operation was necessary, retroperitoneal hysterectomy was the best of recent improvements in the radical treatment of uterine fibroids.

Vaginal Hysterectomy for Cancer: Its Limitations and Results. By Dr. M. A. D. Scharlieb.—The writer reports the results of forty-six consecutive cases of vaginal hysterectomy, of which thirty-five were for malignant disease, eight for fibroids, two for procidentia and one for suppuration involving the uterus and broad ligament. Of these, four proved fatal within a month; they were all cases of cancer; one died of shock, one of nephritis and two of sepsis. Of the thirty-five cases of cancer, seventeen are now alive and there has so far been no recurrence. The proportion of known recurrences within three years after operation is 7.1 per cent. Vaginal hysterectomy for cancer should never be performed in cases where the disease has spread beyond the uterus locally, where the adjacent glands or distant organs are involved, or where some grave constitutional state, such as diabetes or Bright's disease, exists. The lessons to be learned from this and similar records are: (1) it is worth while to operate in cases of cancer of the uterus where the uterus is freely movable and where there is no obvious extension of the disease beyond this organ; (2) no operation should be performed unless the whole disease can be removed and the patient has no other mortal disease; (3) the responsibility lies between the general practitioner and the specialist.

A Discussion on the Prevention and Treatment of Post-partum Hæmorrhage. By Dr. J. W. Byers.—See abstract of the *Lancet* for September 15, 1900, in this number of the *Journal.*

Conservative Surgery of the Tubes and Ovaries. By Dr. S. Boyd.—This paper is an analysis of the cases under the writer's care which have been submitted to conservative operations at the New Hospital for Women from the year 1894 to the present time, thirty cases in all. They include cases of pyosalpinx, hydrosalpinx, fixed retroversions and retroflexions, tuberculous disease, ovariotomy, myomectomy and prolapsed ovaries.

An Account of a Case of Complete Inversion of the Uterus of Three Years' Duration. By Dr. C. E. Purslow.—The writer reports a case of this condition in a woman aged twenty-six. The uterus had been completely inverted since her last pregnancy, three years previous. The inverted fundus was split open along its whole length and the broad ligaments ligatured from the inside. The two halves of the uterus were then cut away and the edges sewn together. The patient made an uneventful recovery, and the external os now presents an absolutely normal appearance.

A Discussion on the Formation of Uric Acid. By Dr. W. D. Halliburton, Dr. T. H. Milroy and others.

On Dilatation of the Pupil from Stimulation of the Cortex Cerebri. By J. H. Parsons, M. B.

Changes in the Cell of the Newt's Stomach during and after Secretion. By Dr. E. W. Carlier.

Fatigue of the Cerebral Motor Cortex. By Dr. A. G. Levy. (*Abstract.*)

On the Usefulness of the Term "Functional Inertia of Protoplasm." By Dr. D. F. Harris.

Tuberculous Lesions from a Surgical Point of View. By Edmund Owen, F. R. C. S.—See abstract of the *Lancet* for September 15, 1900, in this number of the *Journal.*

Gazette hebdomadaire de médecine et de chirurgie, September 9, 1900.

Suppurative Arthritis; Arthrotomy.—M. Xavier Delore reports the case of a man who had accidentally suffered from a punctured wound of the left knee joint just beneath the patella. This was followed by a suppurative inflammation of the joint. A simple arthrotomy resulted in a perfect cure, which the author ascribes to the attenuated virulence of the infecting streptococcus. He draws the conclusion that cases of mild infection should be excepted from the general rule of performing resection of a joint which is the seat of a purulent inflammation.

Lyon médical, September 9, 1900.

The Treatment of Epilepsy with Bacterial Toxines.—M. M. Lannois is preparing to treat epilepsy with the toxines derived from bacterial growth in bouillon. His results will be published. He takes his hint from the cessation of seizures when some epileptics are attacked by typhoid fever, erysipelas, or scarlatina.

Primary Putrid Pleurisy; Pyopneumothorax without Perforation.—M. F. J. Collet and M. Péhu narrate the case of a man who was admitted suffering from pleurisy. On account of increasing dyspnœa, the fluid was evacuated with Potain's aspirator. The fluid was purulent and escaped with inspiration, while only a little flowed during expiration (Pfuhl's sign). After about ten ounces had been withdrawn, however, the reverse took place, much more fluid escaping during expiration than during inspiration. At the autopsy, no connection between the lung and the pleura could be demonstrated, despite the presence of abundant gas in the pleural cavity. The authors consider in detail the symptomatology and pathological findings.

The Results of the Removal of Adenoid Growths.—M. A. Rivière, in considering 152 operations for the removal of adenoid growths, states that he operates without an anæsthetic, but prefers one for amygdalotomy. He had no serious accident in any of the cases. The general condition of his patients improved rapidly. Scrofulous children, especially, improved as they never had under the administration of iodides, phosphates, or cod-liver oil.

Presse médicale, September 8, 1900.

The Nodules of Rabies and the Prompt Diagnosis of the Disease.—M. V. Babes says that after a careful examination of the spinal cord and medulla oblongata, the presence of circumcellular nodules is evidence that the bitten animal had rabies. If no circumvascular or circumcellular nodules are found, the evidence is negative, although the probability is that the animal was not affected by the disease. The ganglia and nerve centres must also be examined. If the medulla, cord, and ganglia of a supposedly mad animal show no evidence of leucocytosis or of the nodules already spoken of, it is probable that the animal did not have rabies. If the animal has died a natural death, we can thus exclude rabies with certainty.

Assistance to Tuberculous Persons in France.—M. Maurice Letulle points out the good effects of sanatorium treatment and the desirability of increasing this mode of caring for persons with pulmonary tuberculosis. He urges their proper care after they leave the sanatorium, with reference to suitable employment, good air, pure, well-prepared, and abundant food, and abstinence from alcoholic liquors.

September 15, 1900.

Appendicitis and Psoitis.—M. Roger, reviewing the work of M. Gangolfe, points out the manner in which an inflammation of the vermiform appendix may evoke an inflammation of the psoas muscle. This may arise by continuity or by contiguity. Examples of each are mentioned. The attempted establishment of a principle by which it is sought to ascribe every acute or chronic myositis of the right psoas to a previous appendicular inflammation is enunciated.

Cod-liver Oil in Tuberculosis.—M. A. F. Plicque speaks of the unquestioned value of cod-liver oil in tuberculous disease. Small doses must be avoided; to obtain good results, from two to three ounces a day must be administered. If the dose of oil is shaken up in a quart of strong beer, its disagreeable taste may be overcome. The following formula is said to render the oil agreeable:

℞	Olive oil....................	225 grains;
	Glycerin....................	120 grains;
	Oil of bitter almonds...........	105 grains;
	Sodium hypophosphite.........	2 grains;
	Calcium hypophosphite........	4 grains.
M.		

Make an emulsion. If the oil is given fresh and cold, or with the addition of lemon or orange, its tendency to be regurgitated may be overcome. The addition of 1.60 of a grain of strychnine aids the stomach in its tolerance of the oil.

Archiv für pathologische Anatomie und Physiologie und für klinische Medicin, August 6, 1900.

Endarteritis and Endophlebitis Obliterans in their Relation to Spontaneous Gangrene.—Dr. Carl Sternberg, in an elaborate review of this subject, concludes that the cause of the gangrene in cases in which an obliterating endarteritis exists is to be referred to the action of numerous injurious factors upon the weakened and deteriorated vascular apparatus. These influences are shown especially in the hypertrophy of the muscular layer of the arteries and in the new connective-tissue formation in the tunica intima. The pain which accompanies this form of gangrene is due to irritation of the cutaneous nerve-endings, in all probability, for histological examination of the nerves has shown no pathological lesions.

The Anatomical and Clinical Relations of Myelo- —Dr. Karl Winkler records the case of a strong, healthy man who, after a fall, showed symptoms that pointed to a disease of the spinal cord. The diagnosis of myelitis was made. At the autopsy, a tumor of the cord was found which had eroded the neighboring vertebræ. No metastases were found, the other bones of the body were normal, and there was no glandular enlargement. The microscopical examination showed a tumor of homogeneous cell elements, the normal histological elements of bone tissue predominating. In his epicritical remarks, the author classifies the tumor among the myelomata, the tumor, however, resembling a small spindle-celled sarcoma.

Siderosis.—Dr. Julius Arnold concludes from an experimental study that the leucocytes show the same changes in endogenous as in exogenous siderosis. This he has found true whether the iron was administered in solution or in substance, in an organic or an inorganic form. The changes, the size, and the relations of the white cells were always the same. The siderotic particles in the leucocytes are not to be regarded as the result of phagocytic action, but as plasmosomes of the cells which are bound to the cells by the iron deposits in them. The arrangement of the siderotic cells in the liver presents the same form as when methylene blue or neutral red is experimentally used, and this is additional evidence that the iron is deposited through the action of the plasmosomes.

Small-cyst Degeneration of both Ovaries.—Dr. Agnes Babo, in reporting such a case, says she believes that the histological study of the specimens shows that small-cystic degeneration of the ovaries may proceed from the remains of the primitive kidney. This form of degeneration has usually been referred to follicular derangement or degeneration.

Spontaneous Discharge of Cerebrospinal Fluid from the Nose. By Dr. Wolff Freudenthal (see *New York Medical Journal,* March 31, 1900, p. 459).

Glioma of the Retina. By Dr. Carl Emanuel.

Wiener klinische Wochenschrift, September 6, 1900.

Metabolic Disturbances in Nurslings Suffering from Gastric or Intestinal Disease. By Dr. Meinhard Pfanndler.

Honthin, an Intestinal Astringent.—Dr. Josef Reichelt believes that honthin is a rapidly-working, harmless, and efficient astringent which leaves no bad results, even when employed for a long time in large doses. It is odorless and tasteless. Children may receive from three to seven and a half grains, four or five times daily.

September 13, 1900.

The Acoustic Speech Centre Inhibitory of Speech Mechanism. By Dr. A. Pick.

The Present Status of Radiotherapy.—Dr. E. Schiff and Dr. L. Freund say that direct attacks of sparks from a Röntgen-ray apparatus are capable of causing falling out of the hair, and may inhibit the growth of cultures of bacteria, or kill the bacteria. The rays work best through thin plates of wood, paper, aluminum, or the human skin. They affect bacteria suspended in fluids. The discharge of sparks which produce pathological changes in the skin causes hæmorrhages in the cutis, with inflammation and a characteristic lesion of the blood-vessels. With these principles in mind, Dr. Freund has constructed an apparatus which permits of the dispersion of the sparks without producing pain or pathological results.

Franklinization in General Practice. By Dr. Breitung.

Deutsche Medizinal-Zeitung, September 6, 1900.

The Determination of what Weapon has Produced an Injury to the Head.—Dr. Karl Gumpertz considers in detail the scars left by various weapons and means of injury to the scalp and bones of the head, from a medicolegal point of view. Excoriations represent the slightest effects of dull weapons; bruises arise from light blows. Clean-cut wounds can come only from sharp instruments, while stab-wounds or punctures can be brought about only when the weapon is introduced in its long axis. (*To be continued.*) [It may be remarked that a clean-cut wound of the scalp may be made with a policeman's club.]

Wiener medizinische Blätter, September 6, 1900.

Psychoses at Puberty.—Dr. Jules Voison defines these mental diseases as outbreaks which occur between the fourteenth and twenty-second years. Any form of psychosis may develop during this period. Heredity is the most prominent predisposing element, and may frequently be combined with an incomplete mental development. The psychoses are frequently of mixed form, and, when they are so, usually offer a good prognosis. The psychoses of degeneration and the neuro-psychoses are the most frequent. Forensically, these diseases of the mind do not differ from those of adult life, except as they are subject to the laws relating to age.

Glycæmia and Diabetes Mellitus. By Dr. J. Seegen.

Wiener klinische Rundschau, September 9, 1900.

The Significance of Teeth in Dermoid Cysts.—Dr. S. W. Bandler disputes the assertions of Wilms, Pfannenstiel, and Pick that teeth found in a dermoid cyst are necessarily of pathogenetic origin. He believes, from his study of twelve cases, that cephalic parts found in a dermoid cyst are of ectodermic origin, and are not due to an unimpregnated ovule, the development of whose cephalic end inhibits the growth of the rest of the body.

Results in the Treatment of Fifty Tuberculous Patients in a Sanitarium.—Dr. S. Gabrilowitch, of the Royal Sanitarium at Halila, Finland, has selected fifty cases, and points out that the patients are all capable of work. Three-fourths of the number have lost their coughs and are free from expectoration. The remainder are all vastly improved. He emphasizes the importance of the patients' having learned how to live properly.

Aspirin.—Dr. Fritz Tribold highly recommends aspirin, a derivative of salicylic acid, in neuralgic affections, in daily amounts of fifteen grains. It is best given on an empty stomach, and is to be followed by an ounce and a half of some simple acid mineral water.

September 16, 1900.

The Parasitic Nature of Eczema. By Dr. P. G. Unna. (See *New York Medical Journal*, September 22, 1900, p. 517.)

New Instruments for Intravesical Operations and Ureteral Catheterism in Women.—Dr. W. Latzko describes a curette and a forceps for intravesical operations which have the advantage of being of considerably larger calibre than those usually employed. He achieves this result by inserting the instruments before he inserts the cystoscope, so that the end of the forceps or curette is of larger circumference than the cystoscope, although its handle, lying in the urethra by the side of the cystoscope, is of exceedingly narrow calibre. He also describes his ureteral catheter, which, he alleges, is exceedingly easy of introduction.

Centralblatt für innere Medicin, September 15, 1900.

The Diminution of the Toxicity of Strychnine by Living Animal Tissues.—Dr. S. J. Meltzer and Dr. G. Langmann, of New York, conclude, as a result of their experimental studies, that strychnine loses some of its toxic properties when it is injected into the leg of an animal and retained there by a ligature from an hour and a half to two hours. The convulsions appeared later, lasted a shorter time, and were not severe. If the injection was made peripherally and as far away as possible from the ligature, a temporary hyperæsthesia only was noticed. The action of the strychnine was more marked when the injection was made near the site of the ligature and in a central direction. The power of absorption of poisons is also limited by the application of a ligature, as the authors have proved by means of rattlesnake poison. When the poison was injected after the removal of the ligature, the animal died less quickly than when it was introduced without the application of a constricting ligature.

Centralblatt für Chirurgie, September 15, 1900.

The Restoration of Mobility after Ankylosis.—Dr. V. Chlumsky says that ankylosis or contracture of joints represents (1) atrophy of the soft parts, (2) union of the bony or connective-tissue elements, or (3) a combination of the two. He has attempted experimentally to promote mobility by resection of the knee joint and by the insertion of thin plates of silver, celluloid, tin, rubber or by covering the ends of both bones with collodion. The animals were able to walk well in a few days, extension only being limited. He advises the use of absorbable plates in man, made of decalcified bone, ivory, or magnesia.

Centralblatt für Gynäkologie, September 15, 1900.

Disinfection of the Hands at Tübingen.—Dr. F. Ahlfeld says that by the use of Mikulicz's alcohol soap the diminution of germs is achieved, if not their absence. The results are identical with those of Ahlfeld's method of disinfection with hot water and alcohol. Ahlfeld considers his method superior, as the diminution in the number of bacteria on the surface of the skin is greater when the hands are washed for the same length of time.

A Colossal Fibromyoma of the Uterus.—Dr. A. Pinna-Pintor reports a successful removal of a fibroid tumor of the uterus which weighed thirty pounds. Its vertical circumference was four feet and an inch, its transverse three feet and four inches.

Contraction and Flabbiness of the Uterus in Early Pregnancy.—Dr. Oscar Beuttner draws attention to the tendency, in neurotic women especially, of the uterus to contract during the early months of pregnancy. Its flabby, soft feel adds to the picture of impending abortion which is sometimes presented, especially when the cervix is simultaneously dilating. He reports two cases which substantiate the observation. One was in a woman pregnant two months, the other in one pregnant three months. Both carried their children to full term.

Rivista critica di clinica medica, August 25 and September 1, 1900.

Degeneration of the Cerebellum as the Result of Intestinal Intoxication. By Dr. Augusto Murri.

September 8 and 15, 1900.

Some Criticisms and some Researches on Clinical Sphygmomanometry. By Dr. G. Y. Giglioli.—The au-of tuberculosis. The wound healed by first intention, and the patient recovered. An attack of influenza brought on a tuberculous inflammation of the lungs, and she died of tuberculosis two years after the operation.

September 4, 5, 6, 7, and 10, 1900.

New Experimental Researches Concerning the Effects of Denudation and Non-penetrating Wounds of the Great Vessels. By Dr. Enrico Burci and Dr. Ugo Lippi.

Vratch, August 26, 1900 (September 7, N. S.).

The Treatment of Ulcers of the Leg. By Dr. E. S. Levy.—The writer describes the treatment of ulcers in the tibial region by means of a circular incision, as practised in the Berlin Charité by the director of that institution, Schweninger. This method was first suggested by Nussbaum in 1873. According to the latter, it consists of making an incision down to the underlying fascia around the ulcer, at a distance of a fingerbreadth from the border of the lesion, thus severing numerous blood-vessels. The circular wound is then filled with gauze or with lint in order to arrest the hæmorrhage, and to prevent the too rapid healing of the wound. In order to accelerate the formation of new epithelium, the edges of the wound are sometimes brought together with strips of adhesive plaster, as recommended by Baynton, or Reverdin's method of skin-grafting is used. Schweninger has modified this method of treating ulcers as follows: The skin is carefully disinfected and a circular incision through the skin, reaching to the subcutaneous tissue, is made at the same distance from the edge of the ulcer as in Nussbaum's method. The wound is then plugged with gauze saturated in iron perchloride, which is left in place for two or three days. The further treatment consists in rest and the application of lotions of acetate of lead. After one or two days the ulcer shows marked changes. The secretion becomes less abundant and more viscid, granulations begin to form, and soon reach the edge of the ulcer. The ulcer becomes smaller as the edge of the wound advances and as the tissues within contract. After a few more days the epithelial growth covers the ulcer with a thin film, and after that the healing process continues rapidly until the ulcer is covered by a movable, elastic, firm, and slightly pigmented scar. Schweninger has obtained successful results even in old ulcers that had been treated with skin-grafting without effect. In rare cases there were relapses, and while the circular incision cannot be considered as a radical measure, it is very useful, as it enables the patient to resume his work in a very short time. The author reports the histories of three patients in whom he successfully cured ulcers of the leg by this method.

A Case of Traumatic Peritonitis of Vaginal Origin Following Coitus Three Months after Complete Vaginal Hysterectomy. By Dr. P. I. Modlinsky.—The patient was a woman aged twenty-six years who had undergone the operation of vaginal hysterectomy for chronic gonorrhœal metritis, endometritis, salpingitis, oophoritis, and perisalpingitis. She made an uneventful recovery, and was discharged from the clinic. Three months later, after a coitus of moderate character, she suddenly felt a severe pain in the pelvis, and noticed a bloody discharge from the vagina. The pain increased and became paroxysmal. When she was seen three hours later by a physician she was found pale, restless, with a pulse of 126, nausea, vomiting, dysuria, and severe pains around the umbilicus and in the lower part of the abdomen, especially on the right side. On vaginal examination a tear in the fornix was found and into this tear was crowded a loop of

thor's conclusions are as follows: 1. The use of the sphygmomanometer in clinical investigations excludes numerous sources of error, both subjective and objective. 2. The best type of sphygmomanometer is that of Riva-Rocci, because it is most easily applied, most accurate, and indicates the condition of the blood pressure, etc., in an important vessel, the brachial artery. 3. While the tension of the radial as felt by the finger, the frequency, the dicrotism, and the instability of the pulse (Huchard's phenomenon), the accentuation of the second aortic sound and the energy of the apex beat are good indices of the condition of endoarterial pressure, they do not give a safe and accurate conception of the variations in this pressure. 4. In some diseases there is a diminution or an increase of the arterial pressure. Thus in interstitial nephritis, aortic insufficiency, in gout, and during convulsive attacks, there is an increase in pressure; while in aortic stenosis, in mitral lesions, and in general in all cardiac lesions during the stage of compensation, in chlorosis, in various forms of anæmia, in tuberculosis, even in the early stages, and in the acute infectious diseases, there is a diminution of the arterial tension. 5. When there is a marked alteration in the arterial pressure, whether increase or diminution, it will be found that the pressure curve of the twenty-four hours presents more extensive oscillations than normally (unstable equilibrium of the pressure). Therefore, in order to estimate the course of the alterations in blood pressure in a given case, it is necessary to measure it, not only once or twice daily, but every two or three hours. 6. The presence or absence of arteriosclerosis must be taken into account in all cases investigated with the sphygmomanometer, for in default of this, grave errors of judgment may be committed. 7. As a rule the blood pressure is inversely as the elevation of the temperature, the frequency of the pulse, and of the respiration. In certain cases there are exceptions to this rule. 8. In the acute infectious diseases the blood pressure has nothing specially characteristic of the individual maladies; as a rule the pressure rises somewhat with the temperature, but soon it descends below the normal, and remains so for a few days after the temperature subsides. 9. The sphygmomanometer is useful in determining the condition of the heart and blood-vessels in infectious diseases, and thus in establishing the prognosis.

Riforma medica, August 31 and September 1 and 3, 1900.

Primary Tuberculosis of the Uterus. By Dr. Abele Ajello.—The patient was a woman aged twenty-six years. Her brother died of a chronic pulmonary disease, probably tuberculous. She had three children, all born at term. Four years before admission she noticed a mucopurulent discharge from the vagina, occasionally mixed with blood. There was also a sensation of weight in the lower part of the abdomen, and in the perinæum, and pains in the pubic region and in the loins. The menstruation became irregular, and finally ceased a year before admission. During this period all the symptoms became more grave, in spite of various forms of palliative treatment. The examination revealed an abundant leucorrhœal discharge and an enlarged cylindrical cervix with softening of the lower portion. The uterus was normal in size, position and mobility, and the adnexa were normal. The os presented an ulcer of the size of a coin of two lire with hyperæmic margins, bluish-red in color, with pale pink, easily bleeding, granulations on its floor. The clinical diagnosis was chronic cervical endometritis with extensive ulceration and enlargement of the cervix. The diseased parts were removed by amputation, and on examination the cervical segment was found to be the seat small intestine. The vagina was carefully dried, and the gut replaced. The opening in the vault was plugged with a strip of iodoform gauze and the vagina tamponed with the same gauze. On the following day an attack of pelvic peritonitis developed, which lasted eight days, and terminated in recovery and in healing of the vaginal wound. The treatment, in addition to general measures, included the application of ice and frequent changing of the vaginal tampon.

A Case of Recurring Oculomotor Paralysis. By Dr. I. I. Strjeminsky. (*Concluded.*)

A New, Convenient and Sensitive Reagent for Sugar (Nitro-propiol Tablets). By Dr. G. E. Wolfson.—These tablets are manufactured by a German chemical firm, and the test for sugar in the urine is performed as follows, according to the directions printed on the labels of the containers: One tablet is dissolved in ten cubic centimetres (about two and a quarter drachms) of water, ten drops of urine are added, and the mixture is boiled for three or four minutes. In the presence of sugar the fluid assumes an indigo blue color, and, if allowed to stand, there is a sediment of indigo.

This test is based on the reaction which takes place in the presence of glucose and nitro-phenyl-propionic acid, giving rise to the formation of indigo. The author concludes, after a series of experiments on normal and diabetic urines, that this new reagent is a practical, safe, and sensitive means of testing for sugar in the urine.

Roussky Archiev Patologyi, Klinitcheskoi Meditsiny I Bakteriologyi, July, 1900. (*Russian Archives of Pathology, Clinical Medicine and Bacteriology.*)

Materials for the Study of the Pathogenesis of Relapsing Fever. Leucocytosis, Bactericidal Qualities, Agglutination. By Dr. A. A. Melkich.—The writer has studied the variations in leucocytosis, in the bactericidal properties of the serum and in agglutination during the entire course of relapsing fever. For this purpose the number of white cells was counted daily and the bactericidal influence of the patient's serum was tested in all cases on the second day of the second paroxysm. As a result of these experiments, Melkich formulates the following conclusions: 1. Before the crisis there is a hyperleucocytosis, during the crisis a hypoleucocytosis. 2. The increase in white cells takes place at the expense of the polynuclear cells which increase in number and represent the specific phagocytes of the spirilla. 3. The increase of the bactericidal substances in the serum does not reach its maximum toward the end of the crisis, nor on the first day of the crisis, but only two or three days after the disappearance of the spirilla from the blood. 4. After the first paroxysm the bactericidal coefficient (the relation of the time in which the spirilla that die in the check cases slides into that in which the spirilla die in the preparations to which the bactericidal serum has been added) increases to a slight extent. It rises more markedly after the second, and particularly after the third, paroxysm. 5. When the paroxysm which we are studying is not the last, there is a lowering of the bactericidal coefficient without a subsequent elevation. 6. If it is the last, the temporary lowering of the bactericidal coefficient is, on the contrary, followed by a perceptible elevation. This elevation is maintained for sixty days, and in this manner a permanent immunity is established. 7. A study of the curves of the bactericidal coefficient does not permit the conclusion that the bactericidal substances are the cause of the crisis, but the latter seems to be due to the phagocytosis.

Koumyss as a Therapeutic Agent. By Dr. K. T. Fleroff.—The author gives the result of his experience of two years at a sanatorium where the treatment consisted principally in the use of koumyss. The patients spend most of their time out of doors, if they are strong enough, and take the koumyss with them on their walks, drives, etc. The quantity to be taken is prescribed according to the needs and conditions of each individual case. No koumyss is taken at the regular meals, and none an hour before or after each meal. Three varieties of koumyss are used; the weak koumyss at the very beginning of fermentation has a sweetish taste; the koumyss of medium strength, at the acme of fermentation, has a sour taste, and foams strongly; while the strong koumyss, with almost an excess of fermentation, has a sharp, sour taste, and but little foam. The different varieties are prescribed according to the indications of each case. (*To be continued.*)

The Normal Boundaries of the Greater and Lesser Areas of Cardiac Dulness in Childhood. By Dr. I. V. Troitzky.

Concerning Florence's Test for Spermin. By Dr. N. N. Mari.—The results of the author's researches are as follows: 1. The addition of Florence's reagent to seminal fluid obtained directly from the epididymites of animals does not give rise to the formation of crystals. 2. Seminal stains from the epididymis of the ox, when moistened with water, give Florence's reaction in every instance. The same experiment gives negative results in the horse and the cat, and positive results in exceptional instances in hogs, dogs, and guinea pigs, even when the stains are twenty-four hours old. 3. Aqueous extracts of epididymites of animals always give the reaction, even in azoospermia. 4. The presence of pus germs in the aqueous extract, or in the solution obtained after soaking seminal stains in water, inhibits the reaction. 5. Freshly ejaculated human semen gives the same reaction as dried semen in stains. 6. Stains with semen of man and of oxen give a positive reaction even if kept indefinitely, provided the fabric is kept in a dry place. 7. Florence's crystals are formed more distinctly if the drop to be examined is not mixed with the drop of reagent, but only brought into contact with the latter. 8. Florence's reagent must contain not less than 1.27 grammes of iodine, 1.65 of potassium iodide, and 30.00 of water. It is better to use more concentrated solutions because the iodine evaporates in the course of time. 9. Aqueous extracts made from the semen which is pressed out of the epididymis of an animal does not give Florence's reaction. 10. Care must be taken not to mix any of the crystals obtained in previous experiments with the fluids to be tested. 11. The human semen resembles that of the ox more than that of any other animal. Yet the latter is distinguished from the former in that it does not give the reaction in the fresh state. 12. The view of Wyatt Johnston, that the semen of animals give a "pseudoreaction," is erroneous. (Florence's test consists in adding a drop of iodine-potassium iodide solution to the fluid obtained by soaking a seminal stain in water. At the point of contact of the two drops, some dark brown needle-shaped, or rhomboidal crystals will form, which resemble the crystals of hæmin.)

Miscellaneous.

The Normal Bacteriology of the Nose.—Dr. St. Clair Thomson (*Journal of Laryngology, Rhinology, and Otology*, August) thus sums up a paper on this subject: "The general conclusion of the whole matter appears to be somewhat as follows: Considering the large quantity of dust-laden and germ-carrying air which passes hourly into the nasal fossæ, they are remarkably free from microorganisms. Certain authors have always been able to find some organisms in the healthy nose, though always in small numbers; others have found none in a majority of cases. This difference is probably due to the fact that the latter observers simply lifted loopfuls of mucus from one spot, while the former generally swept out the nose with pledgets of sterilized cotton-wool. All researches have confirmed the observation that the vestibules of the nose swarm with organisms. Previous observers have demonstrated the action of the ciliated epithelium in sweeping out intruding matters from the nose, and the effect of the trickling of mucus in cleansing the mucous surfaces. Some (Wurtz, Lermoyez, Piaget) claim decided bactericidal power for nasal mucus. Others (Thomson and Hewlett) have not been able to do more than prove that the mucus has an inhibitory effect on the development of microorganisms; while some again have only formed the conclusion that mucus is not a favorable medium for their development. Phagocytosis shares in the work of removal, and for a study of this side of the question the thesis of Dr. Viollet is interesting and instructive."

Metatarsalgia.—Dr. Albert H. Freiberg (*Cincinnati Lancet-Clinic,* September 22d) endeavors to show: 1. That metatarsalgia is a symptom of several pathological conditions of the foot, and sometimes of constitutional disorder. 2. That it is possible to completely relieve many cases without operative interference by establishing an exact diagnosis of the underlying condition and directing the treatment accordingly.

The Question of Asexualization of Habitual Criminals, Idiots and Defectives.—Dr. Daniel R. Brower (*Chicago Medical Recorder,* August) concludes a paper on this subject as follows:

"There is one remedy that, if it could be enforced, would result in no harm to these defectives, but in great good to the community, and that is asexualization, and the form of asexualization recommended is by ligating the vasa deferentia and the Falloppian tubes. Castration would accomplish the same results, but this makes a great deformity. Ligating the vasa deferentia makes no deformity, and we have reason to suppose that the testicles play some important part in general metabolism; that they have some physiological function, not clearly understood, besides the secretion of semen, and their removal does something more than prevent the propagation of the species.

"Castration is followed by complete loss of sexual power, ligation of the vasa deferentia only by a diminution of this power, and it is as effectual in preventing propagation. Ovariotomy would asexualize, but it is a dangerous operation, and, like the testicles, the ovaries, besides that of ovulation, have some important function in metabolism to perform. The ligation of the vasa deferentia not only does not result in a deformity, but is not a dangerous operation, and the same is true of the ligation of the tubes if done through the vagina. These operations for the criminal class might exclude the accidental type of criminal; for idiocy it should include all classes; and for insanity it might be limited to the degenerative types, using the term in the broad sense of Kraeplin. At the Asylum for Idiots at Winfield, Kan., where castration has been used on inveterate masturbators, much benefit has resulted, and this would lead us to suppose that at least some of this class of defectives might derive permanent benefit. The cessation of the menses in the insane sometimes produces a favorable change in their mental symptoms, and sometimes a cure, so that we can hope for permanent benefit from the operation in some of these patients. But be this as it may, unless it can be shown that serious injury would result from the processes herein described, the fact that they will succeed in diminishing the ratio of increase of criminals, idiots, and degenerate insane, demands for them on our part a deliberate consideration for the protection and benefit of society at large."

Proceedings of Societies.

AMERICAN LARYNGOLOGICAL, RHINOLOGICAL, AND OTOLOGICAL SOCIETY.

Sixth Annual Meeting, Held in Philadelphia on May 31 and June 1 and 2, 1900.

The President, Dr. D. BRADEN KYLE, of Philadelphia, in the Chair.

(*Continued from page 567.*)

A Further Report upon the Use of Pure Carbolic Acid in the Treatment of Mastoid Wounds and Chronic Suppuration of the Middle Ear.—Dr. WENDELL C. PHILLIPS, of New York, presented this report. He had said in his report on this subject last year that he had made use of the carbolic-acid treatment devised by Dr. Seneca D. Powell for a period of only three months. Of the six persons whose cases he had reported at that time, all had remained well up to the present. The cases during the past year had been of about the same class as those already reported upon, but he had also used the method in cases of burrowing pus-sacs. He had used the acid freely in these cases, and could not say too much of the favorable results obtained. Better results had been obtained by allowing the carbolic acid to remain in contact with the tissues from thirty to sixty seconds before applying the alcohol as an antidote. In not a single one of the pus-sac cases had a secondary operation been required. He never performed an ossiculectomy, except in cases which had resisted for a long time the usual methods of treatment. He had seen no ill effect from the carbolic-acid treatment in this class of cases, and he was inclined to believe a more rapid result had been obtained. It could be applied freely without fear of harm. This treatment had been employed in his service at the Manhattan Eye and Ear Hospital in about twenty cases of mastoid operation. The discharge had been decidedly lessened in cases in which other cauterizing agents had failed, and in many instances a secondary operation had been avoided. It had been particularly valuable when used in the ear in the form of a spray.

Dr. LEDERMAN said that he had used this treatment in a few cases, and had found very little reaction if the alcohol was promptly applied. Where the necrosis was superficial, there seemed to be quite a field for the use of this agent.

An Unusual Case of Traumatic Rupture of the Membrana Tympani.—Dr. GEORGE L. RICHARDS, of Fall River, Mass., reported this case. He said that Randall, in a tabulation of five thousand cases of ear disease, had found but five cases of traumatic perforation. The case reported was that of a fireman, forty-three years of age, who had been struck on the side of the head at short range by a stream from a hose. He had been knocked down and stunned for the time, and in a few hours the ear had begun to discharge. He had come under observation three days later. The canal was cleansed and iodoform gauze inserted. The man complained chiefly of tinnitus. The rupture appeared to have been the result of sudden compression of the air in the external canal, rather than of the direct impact of the water. A similar case had been observed by him in a spinner who had come because of a facial paralysis, with some deafness and tinnitus. He had fallen down three weeks previously, striking the side of the head. The case had yielded readily to treatment. The symptom most complained of was tinnitus, the loss of hearing being usually not extreme and only temporary.

Dr. Holt said he had seen one or two cases of rupture of the membrana tympani from waves striking the head while the person was bathing. Recently he had seen a case of perforation of the drum membrane occurring in a bicycle-rider who had been struck in the ear by a wire hanging down. No other part had been injured.

Dr. N. H. Pierce said that during the bombardment of Santiago a number of sailors had had traumatic perforation of the ear drum, particularly the men working in the turrets. It had usually been accompanied by more or less pain, deafness, and tinnitus. Most of these men had been able to return to their work within a week. One of the more protracted cases he had seen recently, and there was a chronic suppuration of the middle ear, which the patient said had not existed before the injury. The treatment had consisted in plugging up the ear with cotton and very carefully abstaining from the use of antiseptics.

Carcinoma of the Larynx.—Dr. Thomas H. Farrell, of Utica, N. Y., presented a man, fifty-four years of age, who had had pain on swallowing for the preceding three months. During this time he had lost about forty pounds. Examination showed a grayish fungous growth confined to the left side. The true cords were not involved, and the voice was not impaired. On April 29th portions had been removed and submitted to two pathologists for examination, both of whom had reported the growth to be a typical epithelioma. With the aid of Dr. Jones, a general surgeon, tracheotomy was first done, and then the pharynx opened through the thyreohyoid membrane. The removal of the growth had been begun from in front. More room for working was obtained by doing a thyreotomy along the median line. The attachment of the growth to the pharyngeal wall having been ligated, it was removed, and then the greatest difficulty was experienced in bringing together the pharyngeal mucous membrane. During the first three days the respirations were from 30 to 35, and large quantities of mucopus were discharged from the tracheotomy tube. The temperature only once rose much over 99° F. The tracheotomy tube was taken out on the sixteenth day, and the opening in the trachea allowed to close. On the twenty-sixth day the feeding catheter was removed, and the patient fed with a stomach-tube inserted at each feeding.

Cerebral Abscess of Otitic Origin.—Dr. George L. Richards presented this report. The patient was a man, twenty-eight years of age, seen first on September 16, 1899. At that time he had a temperature of 100.4° F. and a perforation of the drum head. On the next day he was perfectly rational and the general condition seemed good. On the day following, his temperature being normal and his pulse 76, he was allowed to go home at his own request. He was found late in the evening, in a dazed condition, in a swamp at some distance from his home. He was taken back to the hospital, and on that afternoon the speaker saw him. He was absolutely unconscious; the pulse was 104; the right pupil was much dilated, and the whole left side was paralyzed. The speaker gave a probable diagnosis of cerebral abscess, advised an operation, and expressed an unfavorable prognosis. Ether was given and the mastoid operation done. Not enough being found to account for the man's condition, an opening was made with the trephine at the base of the right middle lobe of the cerebrum, and two or more ounces of very foul pus were let out. The cavity was washed out and a drainage-tube inserted. Four hours after the operation the pulse was 140, the respiration 72, and the temperature 105° F. A severe bronchitis soon developed, which might have been the result either of the ether or of the exposure in the swamp. On the next day the temperature was controlled by antipyrine, and the man became partially conscious. He died on the third day, with a temperature of 107.8° F. No autopsy was permitted.

Although nearly the whole of the right middle lobe of the brain had been destroyed, it was remarkable that the man had been in such apparently good condition that he had been allowed to go out from the hospital less than twenty-four hours before being brought back in a state of paralysis and coma.

Cerebral Abscess Following Chronic Otitis Media; Recovery.—Dr. W. H. Dudley, of Easton, Pa., presented this paper by invitation. The patient was a man, twenty-five years of age, who had been seen on August 16, 1897. When a child, he had had an acute suppurative otitis media, and when seen this time had been ill for about a week. He complained of pain in the left side of the head. His pulse was 56 and his temperature 98.4° F. The ophthalmoscope showed decided optic neuritis on the affected side. There was much rigidity of all the voluntary muscles. Almost all of the mastoid process was removed with a chisel, but no pus or dead bone was found. At a point about three-quarters of an inch above the bony canal a trephine opening was made, and a large aspirating needle introduced in various directions into the brain. On reaching inward on a level, and backward at an angle of about 45°, at a depth of about two inches, about half an ounce of seropurulent fluid was withdrawn, and this was examined microscopically. It was found to contain pus, broken-down blood cells, and granular matter. No more fluid could be obtained, so further operative measures were not considered advisable. The man slept well on the night following the operation, but was exceedingly unruly, so that the task of caring for him for the next four weeks was a difficult one. During the first two weeks there was hardly any improvement in the mental state. By the twenty-eighth day the temperature had reached 99.5° F., and after some rapid oscillations it reached the normal point on the thirty-ninth day. By this time his normal mental state had been restored, and it had not changed up to the present time, over two years and a half. He had not the slightest recollection of the five or six weeks during which he had been so seriously ill. The collection of fluid must have been in the temperosphenoidal lobe, near the posterior horn of the lateral ventricle. The mental state was unlike that ordinarily seen in this class of cases.

Granuloma of Prussak's Space Simulating Caries.—Dr. Norval H. Pierce, of Chicago, reported the case of a farmer, thirty-five years of age, having no specific history, who came complaining of deafness. There was no apparent discharge, no marked pain, and no tinnitus.

The watch on the right side could be heard at a distance of three inches, and on the left side at three feet. Lying over the short process of the malleus on the right side, and to a certain extent obscuring the membrana flaccida, was a cauliflower-like mass of the size of a small pea. The speaker removed the mass, which protruded through the membrane flaccida and was attached by a small pedicle. He at once thought the case to be one of necrosis of the incus, but his doubts were aroused by the lack of inflammation of the pars tenuis of the tympanic membrane and the meagreness of the discharge. A probe detected crepitus, but was arrested before reaching the inner wall of the tympanic cavity. Before doing an ossiculectomy, he scraped out the tissue through the opening already existing. In the tissue removed he detected gritty particles which, under the microscope, were found to be inorganic and soluble in hydrochloric acid. After the scraping he found that he had to deal with Prussak's space. The cavity was packed with a little gauze, and the patient made a good recovery. The membrana flaccida did not re-form over Prussak's space, so that the cavity was exposed to external inspection. The speaker said this was the only case of this peculiar character, so far as he had been able to find. We must always distinguish this condition from true osseous necrosis before ossiculectomy, the two conditions having many points in common.

Dr. C. W. Richardson said that the interesting feature was the calcareous deposit. It was probably the result of irritation from retention of secretion, caused by the presence of the granuloma. Calcareous deposits occurred with exceptional frequency.

Dr. Pierce replied that this was a rather common condition in tympanic membrane, though the cause was not well understood.

(To be concluded.)

Letters to the Editor.

THE ACTION OF THE SUPRARENAL CAPSULE ON THE HEART.

216 East Forty-sixth Street,
New York, *September 25, 1900.*

To the Editor of the New York Medical Journal:

Sir: In your issue for September 8th, in the Proceedings of the American Laryngological, Rhinological, and Otological Society (page 435, first column, fifth paragraph), Dr. Lederman, of New York, is reported as having said, speaking of the use of powdered suprarenal extract in nasal hydrorrhœa, that "when it was administered internally, it should be combined with some stimulant to avoid cardiac depression."

This statement is highly incorrect, for, thus far, no other observer has found the suprarenal to be a cardiac depressant; on the contrary, it is a powerful cardiac stimulant in itself, needing none other to assist it, but assisting others at times. Some observers contend that it is the most powerful heart stimulant known.

Samuel Floersheim, M. D.

MATERNAL IMPRESSIONS IN THE LOWER ANIMALS.

108 N. Centre Street,
Phœnix, Ariz., *September 21, 1900.*

To the Editor of the New York Medical Journal:

Sir: As there has been so much printed in the *New York Medical Journal* within the last year about maternal impressions, I will present the following case in animal life:

Several days ago I went to the country, and while there saw a peculiarly marked Shetland pony. I spoke to the owner about the peculiar marking, and he told me that its mother, which was black, while pregnant with it, was being driven, when she became frightened at a sick horse that was lying on the side of the road. The sick horse was marked exactly as the colt was. When the mare became frightened, an old horse-trainer that was present told the owner that when the colt was born it would be marked in the same way as was the peculiarly marked horse which caused the trouble. The owner said he paid no attention to what was said, and had forgotten the incident, until the marking of the colt reminded him of it.

E. Payne Palmer, M. D.

Book Notices.

The Care of the Child in Health. By Nathan Oppenheim, A. B. (Harv.), M. D. (Coll. P. and S., N. Y.), Attending Physician to the Children's Department of Mount Sinai Hospital, etc. New York: The Macmillan Company, 1900. Pp. vii-308.

Many useful medical works may be found on the diseases of children intended solely for the practitioner. Few authors, however, have devoted much care or attention to the instruction of the expectant mother or to the care of the child in health. The present work is a collation of essential facts pertaining to the welfare of both mother and child, clothed in language which will not confuse the lay reader, but readily assist her in obtaining the necessary data to cope successfully with the many problems presented to her from day to day. We find chapters on the pregnant mother, on the baby's outfit and nursery, on feeding and bathing, on sleep and exercise, on clothing, on habits, on the relation of parents to children, on education and defective children, and on the more common diseases. Special attention is paid to the hygienic and dietary conditions and to the correction of certain dogmas which have been ingrained into the minds of successive generations as the outcome of ancient ignorance and superstition. In the treatment advised, the author has wisely restricted his therapeutic measures to such as may be safely intrusted to the mother.

We heartily endorse the work to the anxious mother as a helpful guide to the solution of her many problems.

International Clinics. A Quarterly of Clinical Lectures and Especially Prepared Articles on Medicine, Neurology, Surgery, Therapeutics, Obstetrics, Pædiatrics, Pathology, Dermatology, Diseases of the Eye, Ear, Nose, and Throat, and other Topics of Interest to Students and Practitioners. By Leading Members of the Medical Profession throughout the World. Edited by Henry W. Cattell, A. M., M. D., Director of the Ayer Clinical Laboratory of the Pennsylvania Hospital. With the Collaboration of John Ashhurst, Jr., M. D., LL. D., and Charles H. Reed, M. D., of Philadelphia, and James T. Whittaker, M. D., LL. D., of Cincinnati. With Regular Correspondents in Montreal, London, Paris, Leipsic, and Vienna. Volume II. Tenth Series, 1900. Philadelphia: J. B. Lippincott Company, 1900. Pp. x-300.

The present volume of this well-known quarterly is interesting, as usual. Dr. Cattell describes in detail

Ives's instrument, which is destined to play a great part in medical and anatomical illustration. Dr. A. S. Benedict, Dr. A. A. Eshner, Dr. A. H. Smith, Dr. W. H. Katzenbach, Dr. Edmond Souchon, and Dr. J. Riddle Goffe are among the American contributors. Among those in Europe who contribute to the volume are Professor Senator and Dr. J. Mackenzie Booth. Therapeutics, medicine, surgery, obstetrics and gynæcology, otology, and dermatology are the subjects covered.

Clinical Studies in Epilepsy. From the Craig Colony at Sonyea, New York. By L. Pierce Clark. I. Exhaustion-paralysis in Epilepsy. II. Paramyoclonus Multiplex associated with Epilepsy. III. Hypertrophic Infantile Cerebral Palsy and Phocomelus associated with Epilepsy. Utica, New York: State Hospitals Press, 1900. Pp. xii-230.

The present papers include clinical studies in exhaustion-paralysis in epilepsy, paramyoclonus multiplex associated with epilepsy, and hypertrophic infantile cerebral palsy and phocomelus associated with epilepsy. All three topics are interesting, as the conditions are rare. The writer has added new facts and has carefully criticised and summarized earlier observations. The opportunity for clinical study and record is by no means the least benefit arising from the establishment of large charitable institutions like Craig Colony.

L'Année chirurgicale. Revue encyclopédique de chirurgie générale et spéciale. Publiée sous la direction du Docteur A. Depage, Agrégé à l'Université Libre de Bruxelles, etc. Premier fascicule. Bruxelles: Henri Lamertin, 1900. Pp. 672.

This voluminous work is a compendium of the literature of surgery for the year 1899. We can congratulate the editor and the collaborators upon the manner in which they have acquitted themselves of their task. The subject-matter is not arranged alphabetically, but follows the order usually adopted in textbooks on surgery. In this way a topic can be treated in all its phases in the same part of the book, and frequent cross-references are not necessary. At the head of each section is given a list of all the important articles on the subject under consideration, and the condensed abstracts that follow are arranged to read consecutively as a review of the whole theme. Much space might have been saved by not giving the titles in the original languages, together with the French translation. It is difficult to judge of the completeness of a work of this kind except by constant use, but it seems to us that every new field of surgery has been exhaustively treated in this book. The subjects are presented in an impartial manner, and there is little attempt at critical review.

There is no doubt that this yearbook is a valuable addition to our body of reference-books, and will be of service to writers and investigators in the various fields of the art and science of surgery.

Pathologie und Therapie der Erkrankungen des peripherischen Nervensystems. Von Dr. med. Franz Windscheid, Privatdocenten an der Universität Leipzig. Mit 44 Abbildungen im Texte. Leipzig: C. G. Naumann, 1900. Pp. vii-244.

In spite of the author's apologetic preface, there seems no valid reason for the appearance of this book. As a monograph, it is less complete and less satisfactory than a good book on nervous diseases, or, indeed, than many books on general medicine. This style of publication is useful, when confined to proper themes, for medical students, as an epitome or compend; but certainly not when devoted to so important a branch of pathology as the affections of the peripheral nervous system.

BOOKS, ETC., RECEIVED.

Practical Gynæcology. A Comprehensive Text-book for Students and Physicians. By E. E. Montgomery, M. D., Professor of Gynæcology, Jefferson Medical College, Philadelphia, etc. With Five Hundred and Twenty-seven Illustrations, nearly All of which have been Drawn and Engraved Specially for this Work, for the most Part from Original Sources. Philadelphia: P. Blakiston's Son & Company, 1900. Pp. xxviii-17 to 819. [Price, $5.]

Psychopathia Sexualis, with Special Reference to Antipathic Sexual Instinct. A Medico-forensic Study. By Dr. R. v. Krafft-Ebing, o. o. Professor für Psichiatrie und Nervenkrankheiten an der K. K. Universität, Wien. The only Authorized English Translation of the Tenth German Edition. Chicago: W. T. Keener & Company, 1900. Pp. xv-585.

The Student's Medical Dictionary, Including All the Words and Phrases Generally Used in Medicine, with their Proper Pronunciation and Definitions. Based on Recent Medical Literature. By George M. Gould, M. D., A. M. With Elaborate Tables of the Bacilli, Micrococci, Leucomains, Ptomains, etc.; of the Arteries, Ganglia, Muscles, and Nerves; of Weights and Measures, Analyses of the Waters of the Mineral Springs of the United States, etc., and a New Table of Eponymic Terms and Tests. Eleventh Edition, Enlarged, with many Illustrations. Philadelphia: P. Blakiston's Son & Company, 1900. Pp. 2 to 848. [Price, $2.50.]

The Physical Signs of Pulmonary Disease. By Graham Steell, M. D. Edin., Fellow of the Royal College of Physicians of London, etc. For the Use of Clinical Students. Second Edition. London: Simpkin, Marshall & Company; Philadelphia: P. Blakiston's Son & Company, 1900. Pp. 98. [Price, $1.25.]

The Use of the Sphygmograph in Clinical Medicine. By Graham Steell, M. D. Edin., F. R. C. P. Lond., etc. Manchester: Sherratt & Hughes; Philadelphia: P. Blakiston's Son & Company, 1900. Pp. 57. [Price, $1.]

Warner's New Therapeutic Reference Book. For Physicians and Students. Philadelphia, New York, and Chicago: William R. Warner & Company, 1900. Pp. 5 to 237. [Price, 25 cents.]

Transactions of the American Surgical Association. Volume the Eighteenth.

Submucous Ligature for Rectal Hæmorrhoids and Prolapse. By B. Merrill Ricketts, M. D., of Cincinnati. (Reprinted from the *Medical Review of Reviews.*)

Miscellany.

Country versus City in Relation to Typhoid.—Dr. Henry R. Hopkins (*Buffalo Medical Journal,* September) in an address at the annual meeting of the Medical Society of the County of Chatauqua made the following trenchant remarks:

"And what are the conclusions that we are to draw from the astonishing fact that in the State of New York typhoid fever has been for years and is a rural disease. Starting from the thorough conviction of clinicians and laboratory workers that typhoid fever is a water-borne disease, we shall be correct in our finding that the farm well is the main source of danger from this disease, and that the farm well must be protected from ground water carrying in suspension or in solution the products of human excrement. Again, that rural practitioners of medicine must be more careful in their diagnosis; that they must treat fewer cases of simple fever, of bilious fever, of malarial fever, of autumnal fever, of biliousness, of indigestion with fever, because it is worth while to be right and these diseases are rare and infrequently seen. Again, rural physicians must see more cases of typhoid fever, because to treat these cases without seeing their true infectious character is to neglect to take those simple and inexpensive hygienic precautions, to neglect to sterilize the typhoid dejecta, to fail to prevent the infection from spreading, and is to become responsible for the poisoning of the well, the poisoning of the spring, the poisoning of the stream at its source; and we must not forget that if the spring, the head waters of the stream are poisoned with the bacillus typhosus, whoever drinks of that spring or of that water course, miles and miles below, drinks to his death.

"Again, it is worth while to remember that the farm is the source of the food supply, and, as we have before seen, that it is inexpedient that the farm should send to market tuberculous poultry, tuberculous meat, tuberculous milk, so, likewise, is it inexpedient that the farm should send to market vegetables, fruits or other farm products, which have been washed in water infected with bacillus typhosus. And, lastly, the farm is the home of the dairy, the source of one of the chief foods of all, and the principal food of the young and susceptible, cow's milk. Experience amply demonstrates that it is important that milk cans be washed and rinsed in clean water, and fair play would seem to demand that if we must have our milk watered, the doctor should at least see to it that the diluent be free from the infection of typhoid."

The Antiquity of Chewing Gum.—A correspondent of the *Popular Science Monthly* says the (Rochester) *Union and Advertiser*, September 10th, calls attention to the following interesting passages in a letter written by Columbus shortly after his discovery of America:

"'Finally that I may compress in few words the brief account of our departure and quick return and the gain, I promise this, that if I am supported by our most invincible sovereigns with a little of their help, as much gold can be supplied as they will need, indeed as much of spices, of cotton, of chewing gum (which is only found in Chlos), also as much of aloes-wood and as many slaves for the navy as their majesties will wish to demand.'" The writer adds that "the date of this letter is March 14, 1493, over 400 years ago, and it is very evident from the inclusion of chewing gum in his list of products obtainable in the new country that Columbus considered it an item of considerable importance; so we may fairly assume that the chewing-gum habit was prevalent in Spain in 1493."

Mosquitoes as a Cause of Elephantiasis.—The London correspondent of the *Journal of the American Medical Association* for September 8th says that the second malarial expedition of the Liverpool School of Tropical Medicine has telegraphed from Bonny, in Nigeria, an important discovery, viz., that the filaria which causes elephantiasis, like the malarial organism, is found in the proboscis of the mosquito. The same discovery appears to have been made in England by Dr. Low, of the London School for Tropical Medicine, in mosquitoes brought from Australia.

A Novel Fire Escape.—The inmates of the Mount Pleasant (Iowa) Insane Asylum, now cannot help being saved in case of fire. The fire escape is the latest thing in that line, and consists of a large tube, in the middle of which, from the bottom to the top of the building, there is a pole around which winds a spiral shelf extending from the roofs to the main floor. On each floor there are doors leading into the tube. In case of fire the patients are herded to the chute and bundled into it through the doors. As soon as they reach the spiral shelf they are unpreventably on their way to the main floor. On the inside of the big tube everything is as smooth as glass. There is nothing to grab hold of to prevent their descent. The patients simply have to give themselves up to the law of gravity and slide. It only takes a few seconds to land them on the main floor in safety. The descent is so easy that it is said that a basket of eggs started on the slide reached the bottom without breakage or displacement.

Sixteen to One in Colorado.—The Colorado State board of health surmises that the time may come when there will be sixteen women to one man in Colorado. The statistics show that more females than males are born, and there are two deaths of males to every death of a female.

To Study Municipal Hygiene Abroad.—Dr. J. Underwood Hall, president of the San Jose (Cal.) Board of Health, has been granted a year's leave of absence to study municipal hygiene in Europe as a special representative of the San Jose Board of Health. His leave of absence begins on October 1st. He will send monthly reports of recent advances made in municipal hygiene in various European cities.

The Organization of the Medical Profession.—The *British Medical Journal* for September 1st in an editorial on the Congress of Deontology and Medical Ethics says:

"But perhaps the papers of most immediate interest to us at the present time were those dealing with the organization of the profession in Continental countries. It was shown in regard to Austria and Hungary that while in the former country medical chambers established by law had been tried, and had failed to accomplish what was expected of them, in Hungary the choice had been made in favor of a voluntary association, and that in the course of a few years this had secured the adhesion of five-sixths of the members of the profession in that country. In France, too, a large professional association has been formed by the union of ninety-four local bodies having for their primary object the assistance of medical men, their widows and children. With regard to medical defence, the great thing advocated was a thorough union of medical men to maintain their rights in opposition to all forms of quackery."

Instruction in Hospital Economics.—Columbia University will establish this fall a special course in hospital economics at the Teachers' College. The course is for trained nurses who want to become hospital superintendents or principals of nurses' training schools. The candidates for admission must present a recommendation from the Board of Examiners of the American Society of Superintendents of Training Schools for Nurses. They must have undergone an approved course in a secondary school, college or normal school. Special lecture courses have been arranged, and there will also be laboratory work.

National Characteristics as Typified by the Foreign Visitors at the Centenary of the Royal College of Surgeons of England.—The *Medical Review* for August says that the little speeches delivered by the foreign visitors in the fulness of their cordial hearts were a study in national characteristics. That fine and typical German *savant,* His Excellency Herr von Bergmann, upheld the best Teutonic tradition in his earnest and emphatic speech, spoken in the language of Schiller and Goethe, with a certain hearty, kindly warmth, which did honor at once to his head and heart. *"Streng, warm, und treu"*—that was the phrase most listeners caught. But the palm of happy rhetoric was borne by Professor Durante. His action and accent were alike worthy of the ancients from whom the Italians must descend. "Civilization," says a recent writer, "has sunk deeper into these people, in whom civility is a tradition; it has penetrated to the roots." The Italian's action was the modified form of self-expression which the Gaul now tends to abuse. Lannelongue was nervous and trenchant, but we caught very little of what he said. The distinguished Russian surgeon was so unwise as to address the assembly in English. The splendid Spaniards and the tall Scandinavians were not given a voice, or they claimed none. Mr. Keen made an eloquent speech. Mr. Roddick struck the patriotic note. Academic dress was worn at this gathering, which was a blaze of color.

Medicine as an Art and as a Science.—Dr. Pye-Smith (*Medical Review,* August) in his Address in Medicine at the recent annual meeting of the British Medical Association said that the physician should never forget that he practised an art. He must never allow theories, or even what appeared to be logical deductions, or explanations however ingenious, or statistics however apparently conclusive, or authority however venerable, to take the place of the one touchstone of practical medicine, experience. He should never treat the disease without considering the patient, for the art of healing was the art of healing individually. If, however, medical science without art was inefficient, medical art without science was not only unprogressive but almost inevitably became quackery.

Leprosy in Portugal.—According to the *Polyclinic* for September it is estimated by Dr. Falcao in a recent report on leprosy in Portugal that in a population of less than five millions, one thousand five hundred are affected. The disease does not restrict itself to any one focus, the cases being scattered about the country and no district being wholly exempt. The majority are, however, near the coast. These facts are precisely similar, says the *Polyclinic,* to those observed in South Africa, and, it is needless to point out, they give support to the belief that the disease is in some way conveyed by food and not by personal contagion. If the latter, one would expect to find local prevalence instead of wide dissemination. Dr. Falcao admits his belief that the disease is but very slightly contagious.

Women May Practise Medicine in Vienna.—An imperial decree just issued in Vienna admits women to practise as physicians and chemists on the same conditions as men.

Maine's Next Governor a Physician.—John F. Hill, the next Governor of Maine, is one of the few physicians of the country who have entered or been successful in the political field. He abandoned practice many years ago to become a publisher. He was born only forty years ago at Eliot, Me., and was educated at the South Berwick Academy. He afterward studied medicine and took his degree of M. D. from Bowdoin Medical School. After he had made a success of his publishing business Dr. Hill invested the profits in industrial enterprises in his own State. He is interested in several electric railway plants, is one of the developers of Augusta's big shoe factory and is the builder and owner of numerous valuable business blocks in the same town. It will be remembered that this is not the first time that a physician has occupied the gubernatorial chair of Maine, Dr. Garcelon having served as Governor of the State with distinction.

Unauthorized Dumping of Manure.—Judge Bischoff, in the New York Supreme Court, has handed down his decision in the injunction suit brought in July last by Karatzonyi & Kmetz, of Glenwood Landing, L. I., to restrain Thomas G. Townsend, Reinhard & Campbell, from continuing to unload and dump manure at Glenwood during certain seasons of the year. In his decision Justice Bischoff said that while a permit was granted for the unloading, it did not appear that the permit covered the exact place where the manure was piled and exposed. In this particular, the unloading of the manure, Justice Bischoff said, constituted an act in violation of the ordinances of the local authorities. In regard to the contention that the presence of the stable manure did not constitute a menace to the public or to the health of the guests at the plaintiff's hotel, he said that the injury to the plaintiff was the same as though there had been a menace to the health of his guests.

The Associated Physicians of Long Island will hold their regular autumn meeting in East Hampton on Saturday, October 6th. A special train will be provided (starting from Brooklyn, we presume), and the members in attendance will be the guests of the village at dinner, after the meeting.

The New York Academy of Medicine.—At the first stated meeting of the season, on Thursday evening, the 4th inst., Dr. Abraham Jacobi presented a paper entitled Artificial Infant-feeding, being a Complete Report Written for the Children's Section of the Thirteenth International Medical Congress.

At the next meeting of the Section in Surgery, on Monday evening, the 8th inst., Dr. Alexander B. Johnson will read a paper entitled Some Cases of Acute Appendicitis; Dr. J. F. Erdmann will present a case of recovery from strangulation of the intestine due to Meckel's diverticulum; Dr. Willy Meyer is to exhibit a cystoscopic prostatic incisor for Bottini's operation; and Dr. Carter Cole will exhibit a new clavicular crutch.

At the next meeting of the Section in Pædiatrics, on Thursday evening, the 11th inst., the following papers will be presented for discussion: Conclusions Formed after Six Years of Experience with the Antitoxine Treatment of Diphtheria, by Dr. Henry F. Koester; What Quantity and Grade of Antitoxine Should be Given in Diphtheria, and How Should it be Administered? by Dr. William Hallock Park; and Antitoxine in the Treatment of Diphtheria, by Dr. John H. McCollom, of Boston.

The Tri-State Medical Society of Alabama, Georgia, and Tennessee.—The twelfth annual meeting will be held in Chattanooga, on Thursday, Friday, and Saturday, October 11th, 12th, and 13th, under the presidency of Dr. R. R. Kime, of Atlanta. The programme contains the following titles: The President's Address: The Relation of the Profession to the Public; The Therapeutic Effect of Iodine Demonstrated by Physiological Action and Pathological Demonstration, by Dr. L. H. Warner, of Brooklyn; Tuberculosis in Private Practice, by Dr. J. B. Murfree, of Murfreesboro; The Home Treatment of Tuberculosis, by Dr. William Porter, of St. Louis; Simple Inflammation of the Eye, by Dr. E. H. Jones, of Murfreesboro; Tolerance, Suggestion, and other Odd Features in Eye-strain, by Dr. Ross P. Cox, of Rome, Ga.; The Relation of the Mastoid Process to the Cranial Cavity, by Dr. George D. Keiper, of Lafayette, Ind.; Little Things in the Treatment of Trachoma, by Dr. L. W. Beardsley, of St. Louis; Obstipation, by Dr. Thomas C. Martin, of Cleveland; A Demonstration of the Rectal Valves, with Observations on their Pathology, by Dr. A. B. Cooke, of Nashville; Some Anatomical and Histological Points in the Colon and Rectum of Interest to the Surgeon, by Dr. J. Rawson Pennington, of Chicago; Continued Malarial Fever, by Dr. E. O. Williamson, of Gurley, Ala.; The Appendix—the Abdominal Death-trap, by Dr. B. Brindley Eads, of Chicago; Xeroderma Pigmentosum, by Dr. J. R. Gillespie, of Dayton, Tennessee; An Epidemic of La Grippe, by Dr. R. H. Tatum, of Chickamauga, Ga.; Rheumatism and Osteo-arthritic Conditions of the Feet, Knee, and Spine, by Dr. Michael Hoke, of Atlanta; The Use of Serums and Animal Extracts as Medicinal Agents, by Dr. P. L. Cortelyou, of Marietta, Ga.; Delirium, its Differential Diagnosis and Significance, by Dr. Frank Parsons Norbury, of Jacksonville, Ill.; Diabetes Mellitus, by Dr. R. Alexander Bate, of Louisville; Suprapubic Cystotomy for Traumatism, with Median Perineal Drainage, by Dr. J. G. Carpenter, of Stanford, Ky.; The Use and Abuse of Nasal Sprays, by Dr. Dunbar Roy, of Atlanta; Twenty-two Operations for Mastoiditis, by Dr. J. M. Crawford, of Atlanta; The Value of Blood Examinations in General Medicine, by Dr. Claude A. Smith, of Atlanta; A Device for the Relief of Bladder Spasm in the Treatment of Cystitis, by Dr. G. H. Noble, of Atlanta; Xeroderma Pigmentosum, by Dr. Bernard Wolff, of Atlanta; The Ætiological Relation of Eye-strain to Epilepsy, by Dr. Otto G. Stein, of Chicago; Early Menstruation and Pregnancy, by Dr. J. T. Kirkpatrick, of Tunnel Hill, Ga.; Dilatation of the Stomach, by Dr. H. Berlin, of Chattanooga; Papilloma of the Vocal Cords—a Report of Five Cases, by Dr. W. L. Bullard, of Columbus, Ga.; A Case of Papilloma of the Vocal Cords, by Dr. Frank Trester Smith, of Chattanooga; Puerperal Infection, by Dr. J. C. Wilson, of Rockwood, Tenn.; Old-time Remedies, by Dr. Y. L. Abernathy, of Hill City, Tenn.; A Report of a Unique Gynæcological Case—its Treatment and Recovery, by Dr. John L. Jelks, of Memphis; Uterine Fibroids, by Dr. J. D. Gibson, of Birmingham, Ala.; Surgical Shock, by Dr. George R. West, of Chattanooga; Graves's Disease and some Points in its Treatment, by Dr. James B. Duncan, of Bedford, Ind.; Epidemic Medication, by Dr. Andrew B. Brookins, of Bartow, Fla.; The Teeth and the Many Parts they Play in the Drama of Life, by Dr. John P. Stewart, of Attala, Ala.; A Case of very Large Abscess of the Liver, Operation, Death in Ten Weeks, by Dr. M. Goltman, of Memphis; Chorea, by Dr. F. B. Sloan, of Cowan, Tenn.; Stricture of the Small Intestine, Operation, Subsequent Treatment and Recovery, by Dr. George W. Self, of Selfville, Ala.; Some Interesting Abdominal Sections, by Dr. James A. Goggans, of Alexander City, Ala.; and Kumyss Made of Goat's Milk in the Treatment of Consumption, by Dr. Thomas Bassett Keyes, of Chicago.

The Medical Society of the Missouri Valley held its annual meeting in Council Bluffs on September 20th and elected officers as follows: President, Dr. V. L. Treynor, of Council Bluffs; vice-presidents, Dr. B. B. Davis, of Omaha, and Dr. F. E. Sampson, of Creston; treasurer, Dr. T. B. Lacey, of Council Bluffs; secretary, Dr. Charles Wood Fassett, of St. Joseph. The next meeting will be held in Omaha, in March, 1901.

First Aid to the Injured.—Dr. M. J. Shields, of Jermyn, Pa., in whose article, published in our issue for September 8th, mention was made of a little book entitled *First Aid to the Injured,* informs us that since the publication of his article he has had many letters from physicians asking where the book can be obtained. He therefore asks us to state that one may procure it by sending thirty cents to the St. John's Ambulance Association, St. John's Gate, Clerkenwell, London, E. C., England.

The Late Dr. Lewis A. Sayre.—At a special meeting of the executive committee of the New York County Medical Association, held September 24, 1900, the following resolutions were unanimously adopted:

Whereas, It is our sad duty to announce the death, on September 21, 1900, of our late associate, Dr. Lewis Albert Sayre, one of the founders of the American Medical Association and its president in 1880; therefore, be it

Resolved, That we place on record our high appreciation of the valuable services which he has rendered to medicine and surgery during his long and useful life.

Resolved, That his daring originality, his freedom from surgical traditions, along with his unflagging enthusiasm and interest in everything pertaining to his beloved profession, constituted him a teacher of rare excellence, whose pupils will cherish his memory long after the voice of their preceptor is hushed.

Resolved, That we extend, in the name of the members of the New York County Medical Association, our heartfelt sympathy to the afflicted relatives, and direct that a copy of these resolutions be sent to the family and to the medical journals.

To Mount and Preserve Mosquitoes.—According to the *Indiana Medical Record* for August 29th, D. C. Rees describes the following simple method which is employed in the laboratory of the London School of Tropical Medicine: "Kill the mosquito by placing it in an ordinary killing bottle, or, if this is not available, a little chloroform or tobacco smoke will do as well; when dead, turn it over on its back, separate the legs if they are together, place a large drop of thick xylol Canada balsam on a slide, invert this gently on to the mosquito, and in this way it is picked up without any chance of injury; then with a fine needle spread out and arrange the wings and legs, and if necessary press down the thorax very carefully. Next, pour on some thin xylol Canada balsam; as this runs out, it straightens the proboscis and antennæ, and they do not, as a rule, require to be touched. Put the specimen on one side to harden, then chip off the excess of Canada balsam, place a glass ring on, and fill up the chamber that is thus formed with Canada balsam. The upper surface of the Canada balsam should be convex, so that when the cover glass is applied no air bubbles are included. Allow the specimen to harden before sending by post. If the glass rings are not at hand, the specimen will keep quite well in the Canada balsam alone, and the last part of the mounting may be completed after the specimen has been sent home. If the mosquito is intended for photographing, great care must be taken in mounting it, so that it lies as far as possible in one plane."

THE NEW YORK MEDICAL JOURNAL, OCTOBER 13, 1900.

Original Communications.

HYPERTROPHY OF THE TURBINATED BODIES,

AND THEIR RELATIONS TO INFLAMMATION OF THE MIDDLE EAR,

WITH REPORT OF FIFTEEN HUNDRED OPERATIONS.

BY CHRISTIAN R. HOLMES, M. D.,
CINCINNATI.

(*Continued from page 534.*)

Hypertrophy of the *middle* turbinated to such an extent as to demand operative interference, is, as compared with the inferior, quite infrequent, and is, like the polypi so often associated with it, frequently secondary to empyema of the accessory cavities.

Operations upon this bone should also be conducted sparingly for simple hypertrophy. (In empyema of the accessory cavities the sacrifice of the entire bone is generally necessary.) For removing the soft hypertrophied mass, the snare is all one can ask; but for removal of a portion or all of the bone, I devised and have used since 1892 the scissors shown in Fig. 7. Being powerful and curved, they enable the operator by a few quick, clean cuts to remove a part or all of the bone as he may desire (Fig. 7*a*). The biting off and tearing away of this bone piecemeal, as practised with the alligator forceps, is certainly not neat surgery.

A study of the path taken by the current of air as it is inhaled through the nose is of much interest in connection with operations upon the turbinated bodies, because it has been claimed that this operation would prevent the proper ventilation of the upper portion of the nares. The first experiments appear to have been made upon fresh cadavers by Ed. Paulson, 1882, experimenting with osmic acid and ammoniac gas. R. Kayser improved upon Paulson's method in 1890, using osmic acid and also magnesia powder for demonstration. But the final and most scientifically conducted experiments upon this subject were made by Dr. Gottfried Scheff, in 1895, forcing air laden with iodine vapor through the nares of fresh cadavers, after these passages had been covered with solutions of starch, the direction of the main current of air being indicated by the darker iodine stain (see Fig. 8). To prove that even the direction of this current is not influenced by the partial or total absence of the middle and inferior turbinated, he experimented upon old subjects where there had been almost complete atrophy of both of these bodies, and yet the current took the same direction (see Figs. 9 and 10). The reason for this is shown in Fig. 11, which represents a cast of the interior of the naris.

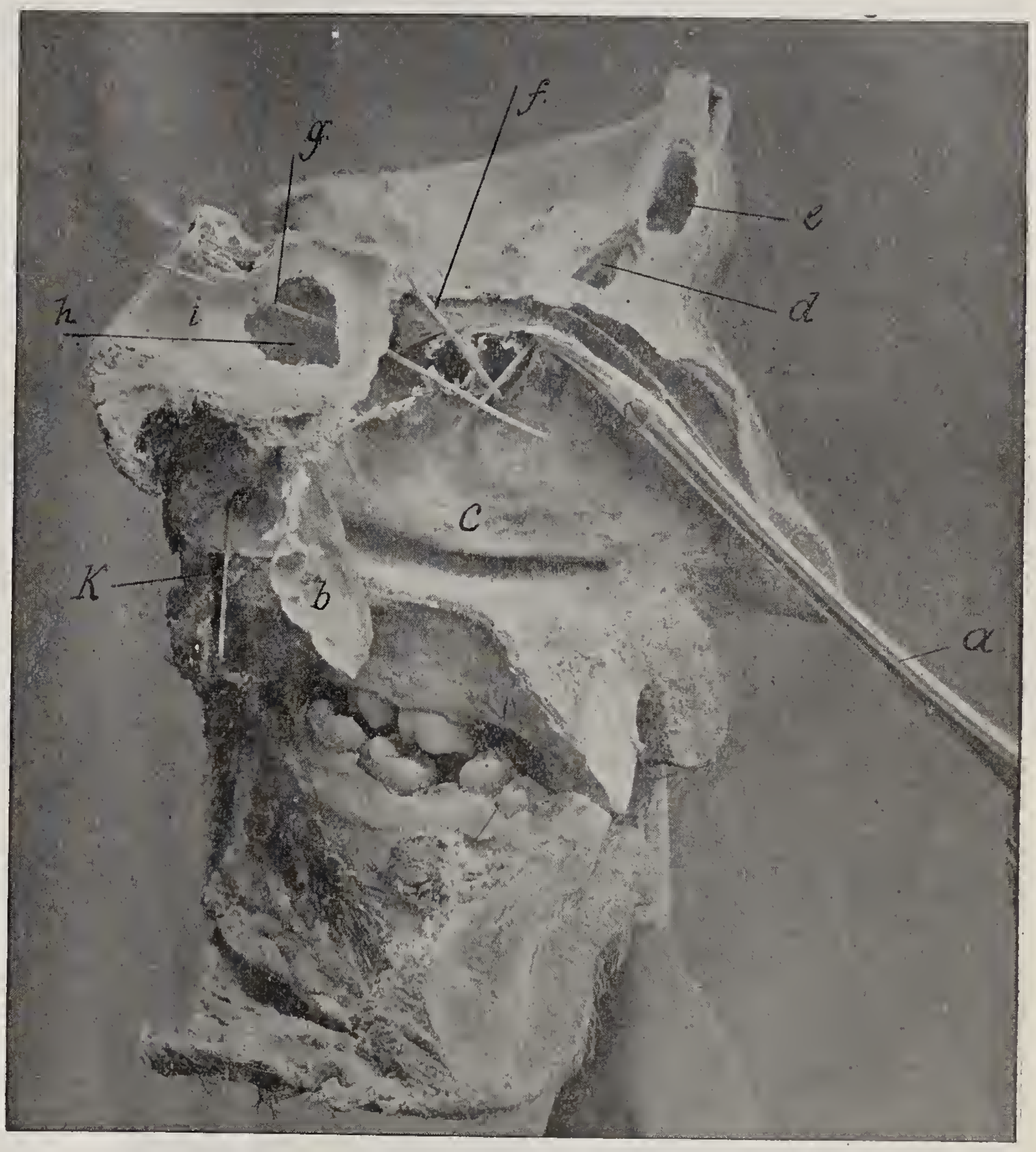

FIG. 7*a*.—*a*, middle turbinated nasal scissors; *b*, middle turbinated body partially detached; *c*, inferior turbinated; *d*, probe entering frontal sinus; *e*, frontal sinus; *f*, probe entering antrum of Highmore; *g*, probe entering sphenoid cavity; *h*, sphenoid cavity; *k*, probe entering Eustachian tube.

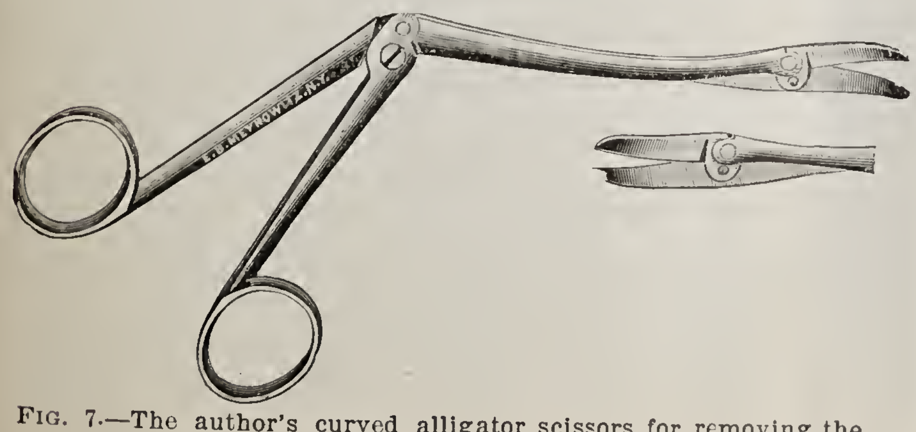

FIG. 7.—The author's curved alligator scissors for removing the middle turbinated bodies.

Not included in the list of operations on the turbinated bodies, I have recorded 105 operations for spurs upon the septum. I do not intend to make these a part of this paper, but only wish to note that of them 80 occurred in the male and 25 in the female, which would seem to uphold the theory that spurs are generally due to injuries—the athletic and pugnacious tendency of the male sex being the chief cause. The hypertrophies were almost evenly divided between the males and females.

Of the 1,500 operations on the turbinated bodies, each side of the nose was counted as one operation (as I never operate on both sides at the same time), so that the 1,500 operations only represent about 1,000

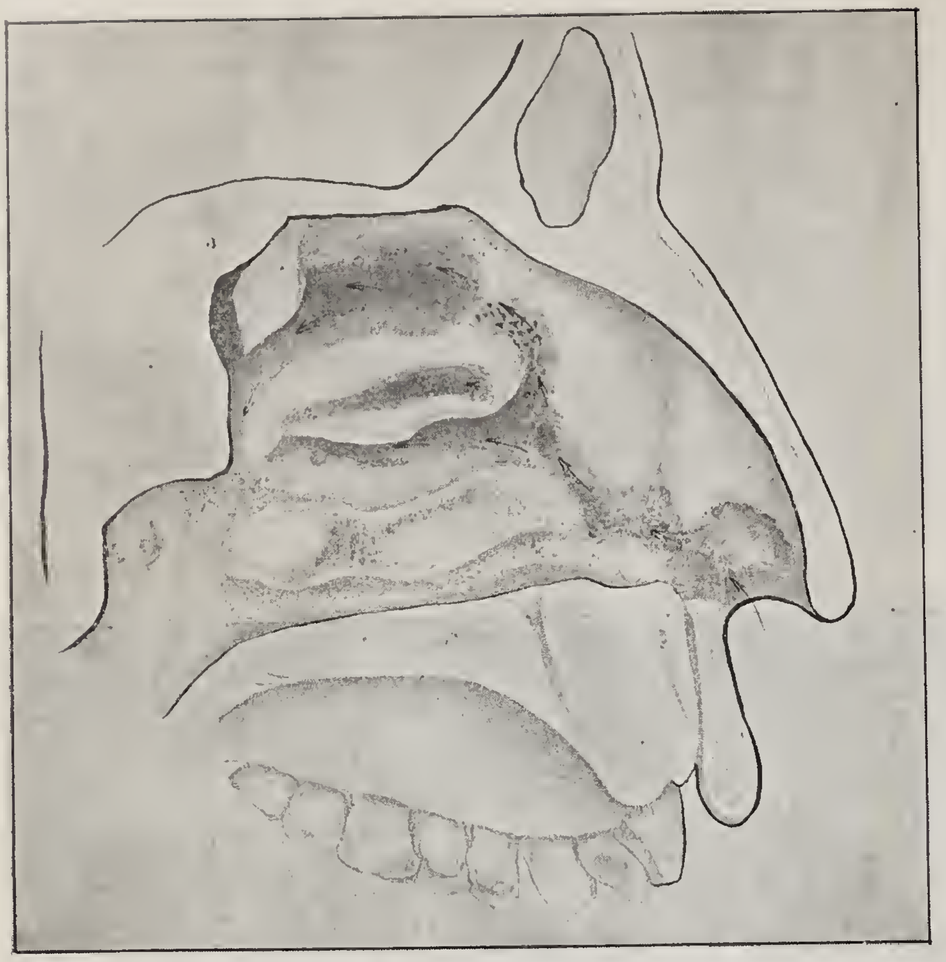

FIG. 8.—Dark stains, indicating the direction taken by the current of air in passing through a normal nose. (After Gottfried Scheff.)

patients. Forty-three of the 1,500 operations were made upon patients under ten years. In these the operations were very guardedly made. The oldest patient was seventy, and the hypertrophy a fine specimen. Most of the cases occurred between the thirteenth and fortieth year. Adenoids are recorded in 82 cases; purulent otitis media in 36; otitis media catarrhalis chronica in 472.

Relation of Inflammation of the Turbinated to Pharyngeal and Middle-ear Catarrh.—The embryonic development of the tympanic cavity, Eustachian tubes, membranes, and ossicles is in direct connection with the development of the pharynx, so that this intimate development explains why inflammation is so readily extended by contiguity from the nose and pharynx through the Eustachian tube to the middle ear. We know that most cases of middle-ear inflammation can be permanently arrested by timely treatment to the nose and pharynx. In acute and mild cases treatment alone sufficing. But when the pathological changes are marked, then removal of the adenoids, hypertrophy of turbinated bodies, polypi, etc., must be resorted to. Tubal catarrh is generally arrested at the isthmus for a longer or shorter period, but if the primary causes in the pharynx and nose are not relieved, then the inflammation will, during some acute attack, pass this imperfect barrier and enter the tympanic cavity, causing hypertrophy and eventually atrophy, beginning with symptoms of deafness and tinnitus—the latter not absolutely constant. While perfect hearing can not be restored where cicatricial changes have taken place, we can in the majority of cases arrest, or at least retard, the progress of the disease. In addition to surgical treatment, prolonged local and internal treatment must be resorted to. From observations, I believe that in uncomplicated cases (*i. e.*, absence of inherited syphilis, empyema and necrosis) we can, if the disease is limited to the tube, or if no marked pathological changes have taken place in the middle ear, prevent progress or cure these cases, if we can bring the nose and pharynx into normal or nearly normal condition.

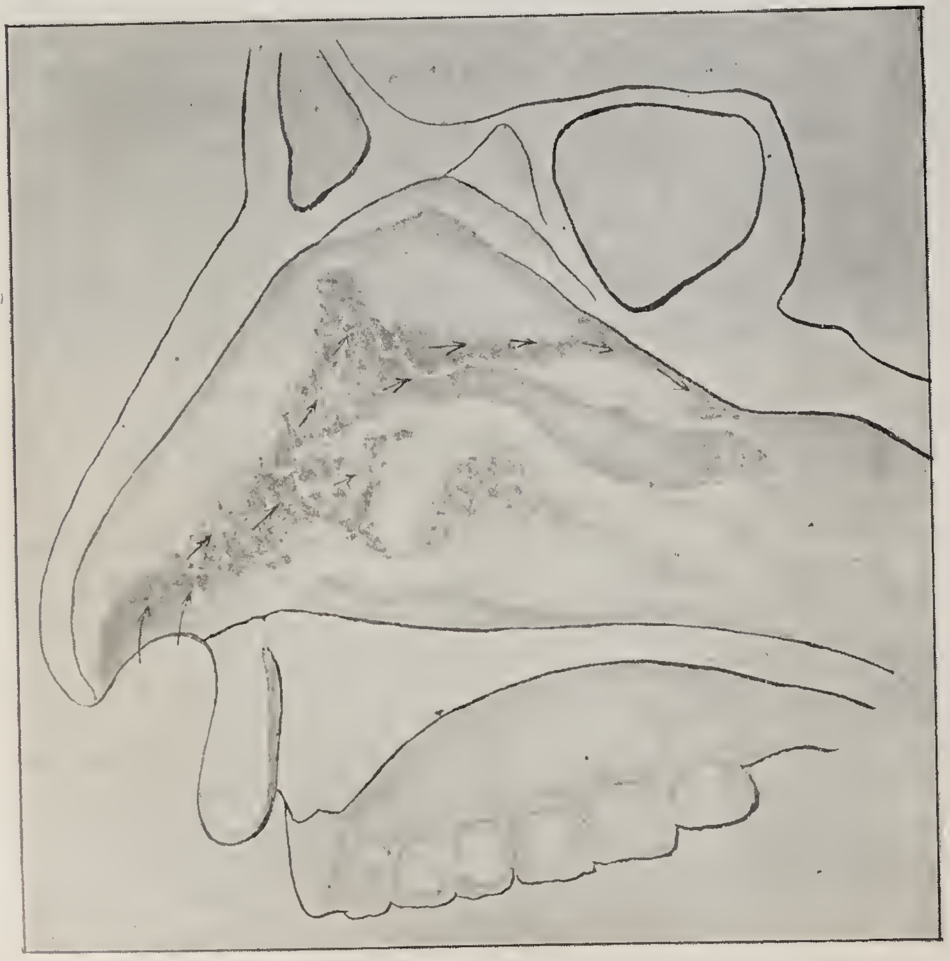

FIG. 9.—Direction of the air-current where the turbinated bodies were partially absent. (After Gottfried Scheff.)

How intimately the middle ear is connected with the nose and pharynx can be observed by any one in the early stages of the disease. Given such a case with the ear feeling perfectly comfortable, after a short exposure in a hot, crowded hall or riding in an open car on a damp, chilly day after being overheated or improperly protected, and in a short time the patient will begin to feel the nose "stopping up," then a feeling of fullness in the ear, often extending to the mastoid; not pain, only a dull pressure, increase of tinnitus if it has existed, and hearing becoming more or less muffled. The tube and tympanic cavity are wonderfully rich in arteries from many different sources, and we have direct arterial and venous communication between the nose, pharynx, and tube, which explains the rapid extension of congestion from the nose and pharynx to tube and ear. Bearing this in mind, we should ever be on the alert for nasal affection, and insist on early treatment, for, with the advent of cocaine and our present knowledge, a new era in otology has dawned, and the next generation should have a very large reduction in the number of its deaf.

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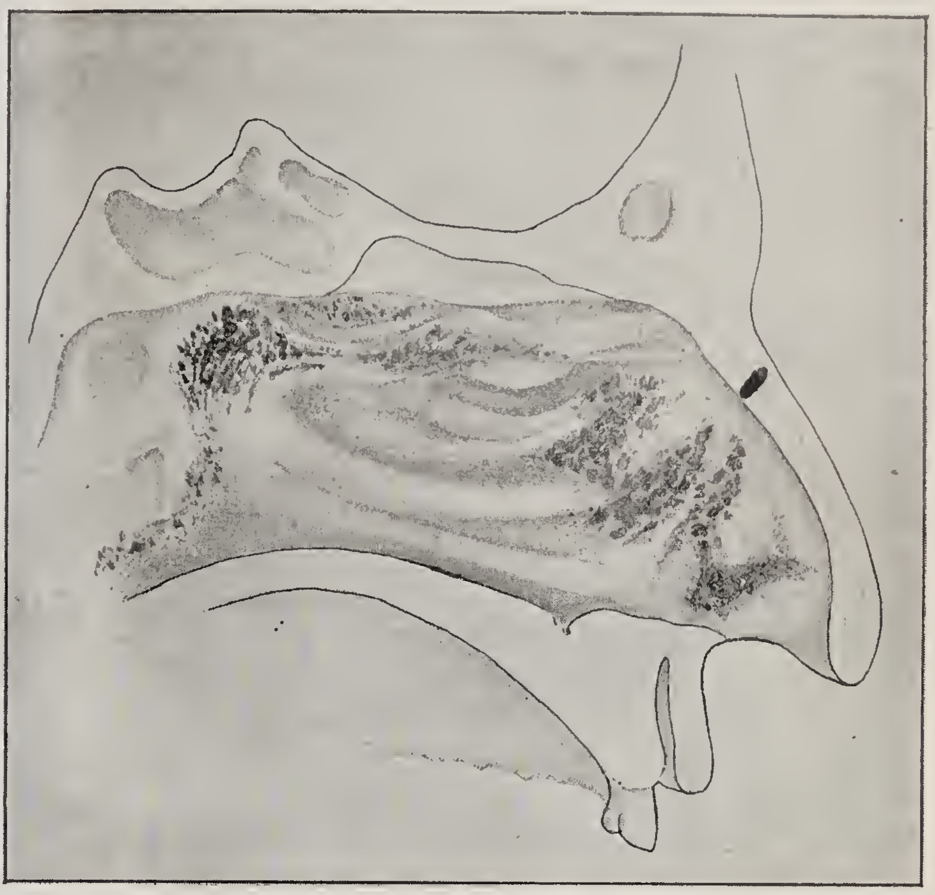

FIG. 10.—Direction taken by the air-current where there was almost *complete absence* of both turbinated bodies. (After Gottfried Scheff.)

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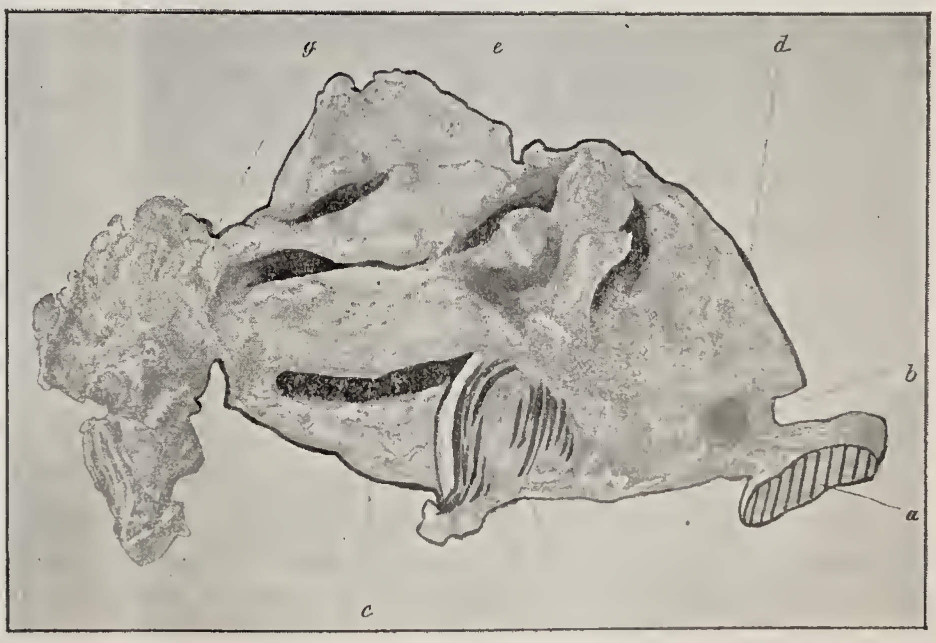

FIG. 11.—Cast of the interior of the right naris. *a*, entrance to the anterior naris; *b*, constriction; *c*, downward curve of the floor of the naris, above which is seen the inferior turbinated partly detached from the cast; *d*, constriction indicating the position and size of the posterior naris. (After Gottfried Scheff.)

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36. *Die Lehre von den Naseneiterungen.* Dr. Ludwig Grünwald.

37. Professor N. Moritz Schmidt. *Die Krankheiten der oberen Luftwege,* 1894.

38. *Diseases of the Nose and Throat.* Charles E. Sajous. White and Purple Hypertrophy.

39. *Die Krankheiten der Nase.* Dr. Carl Zarniko. The arteries lie close to bone in turbinated bodies, forming three capillary networks arranged one above another; much richer in veins than arteries.

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41. *Krankheiten der oberen Luftwegen.* Dr. A. Jurasz, 1891. Reports 400 cases of hypertrophic nasal catarrh. In 273 cases (68.3 per cent.) the lower turbinate *only* was involved. The middle turbinated was affected in twenty-five per cent. Chronic pharyngeal catarrh was much more frequently associated with hypertrophy of inferior (105 cases) than with hypertrophy of middle (37 cases). Chronic laryngitis frequently associated with hypertrophy of the turbinated bodies.

Age.	Cases.	Age.	Cases.
0–10 years	30	40–50 years	30
10–20 "	142	50–60 "	13
20–30 "	120	60–70 "	7
30–40 "	56		

More frequent in the male. Between 10 and 40 years eighty per cent

Headache in twenty-five per cent. of cases suffering from hypertrophy of inferior turbinated alone or associated with hypertrophy of the middle turbinated, also croupous cough.

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8 and 10 East Eighth Street.

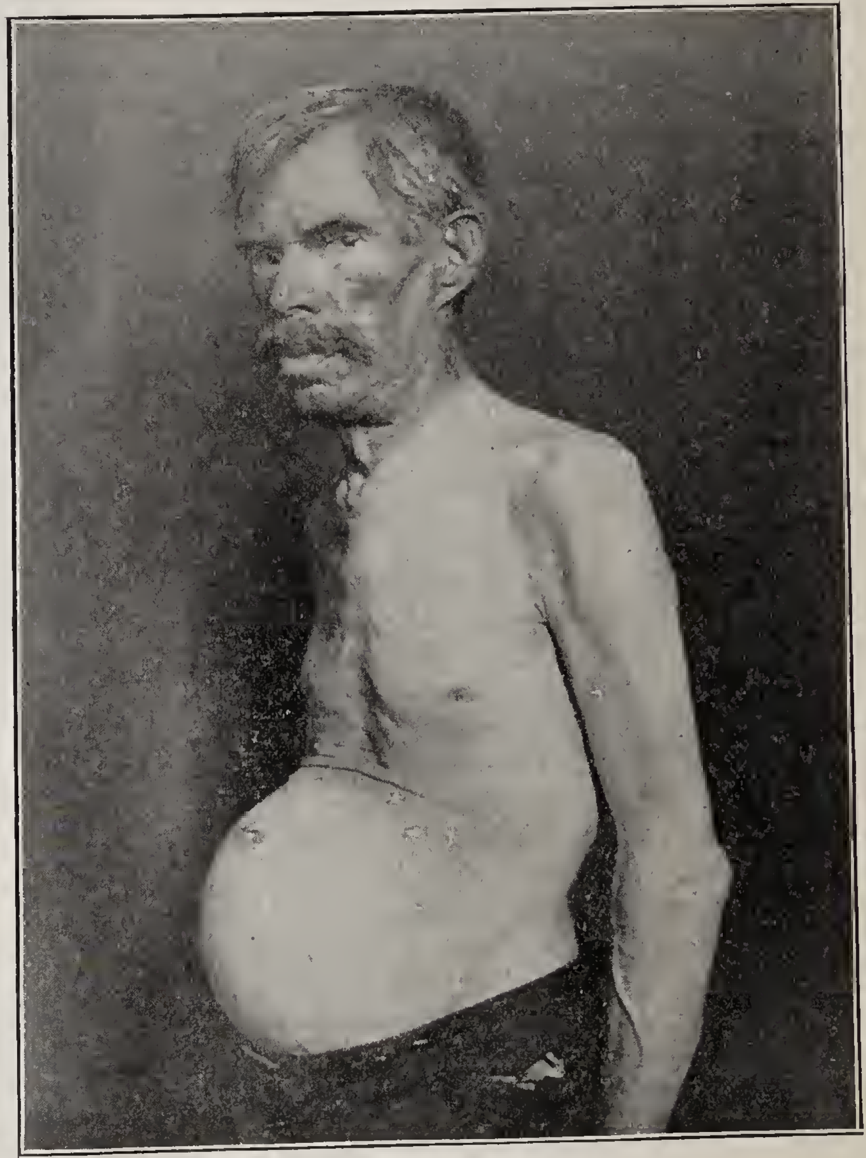
DILATATION OF THE COLON.

By H. G. MARXMILLER, M. D.,

NEWPORT, KY.

A few weeks ago a man presented himself to me for treatment and gave me the following history:

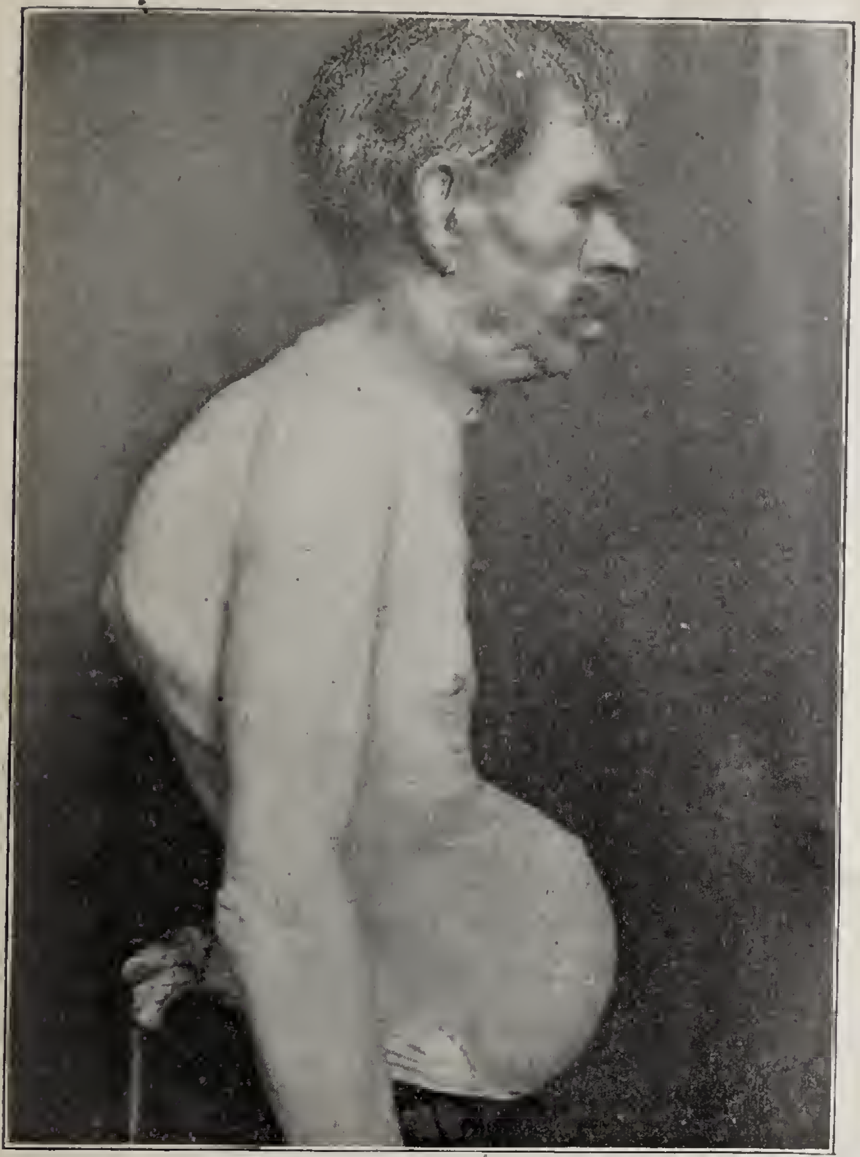
He was a machinist, fifty-two years of age; a man of medium build. He had contracted syphilis twenty years before, for which he had received treatment. Ten years after the initial lesion had appeared, several specific leg ulcers were observed.

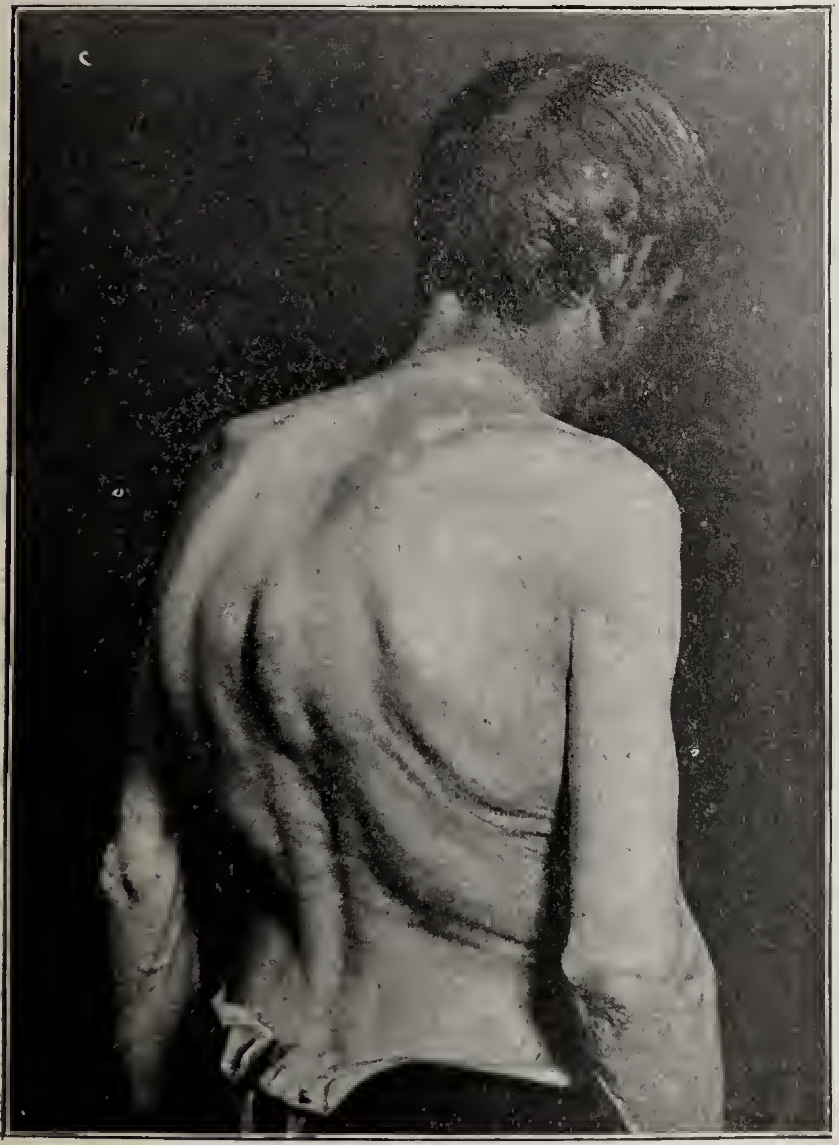


He had been apparently well up to three years ago, when, while working in a machine shop on a cold November day, he was seized with an attack of chills accompanied by fever. There was also severe pain in the dorsal region, which, by morning, had become inflamed. There was no suppuration or necrosis. Ten days after the acute symptoms had subsided, a marked angular curvature of the spine was observed, and, a week later, dilatation of the colon, as may be seen in the accompanying illustrations.

Morton, in the *Montreal Medical Journal* for March, 1897, divides dilatation of the colon into four classes of cases: 1. The rarest, those of undoubtedly congenital origin. 2. Those in which the symptoms present themselves within a few months after birth. 3. Those in which the symptoms develop some years after birth, but in a distinct form. 4. Those which occur only in adult life, the cause being regarded as purely mechanical.

The foregoing case does not seem to belong to either





of the four classes, as it did not occur in infancy and it cannot be considered as purely mechanical, as there was no mechanical obstruction. It is undoubtedly secondary to a tertiary lesion of the spinal cord, and it is responding slowly to specific treatment.

ON THE EMPLOYMENT OF THE UPRIGHT POSITION IN ETHER OPERATIONS UPON THE NOSE, THROAT, AND EAR.*

By THOMAS R. FRENCH, M. D.,

BROOKLYN.

A SEARCH through surgical literature reveals the existence of an almost universal fear among surgeons of performing ether operations upon the nose and throat while the patient is in the upright position. This fear seems to be due to the supposed danger of blood flowing into the windpipe. My experience in a large number of operations with the patient in the upright position has proved that unless the patient is profoundly anæsthetized, blood does not flow from the pharynx into the larynx. Even in deep narcosis, during the performance of operations above the larynx, I am of the opinion that the danger would never be great if anything like reasonable care were taken to prevent the blood from flowing over the arytænoid structures, for, when sharp

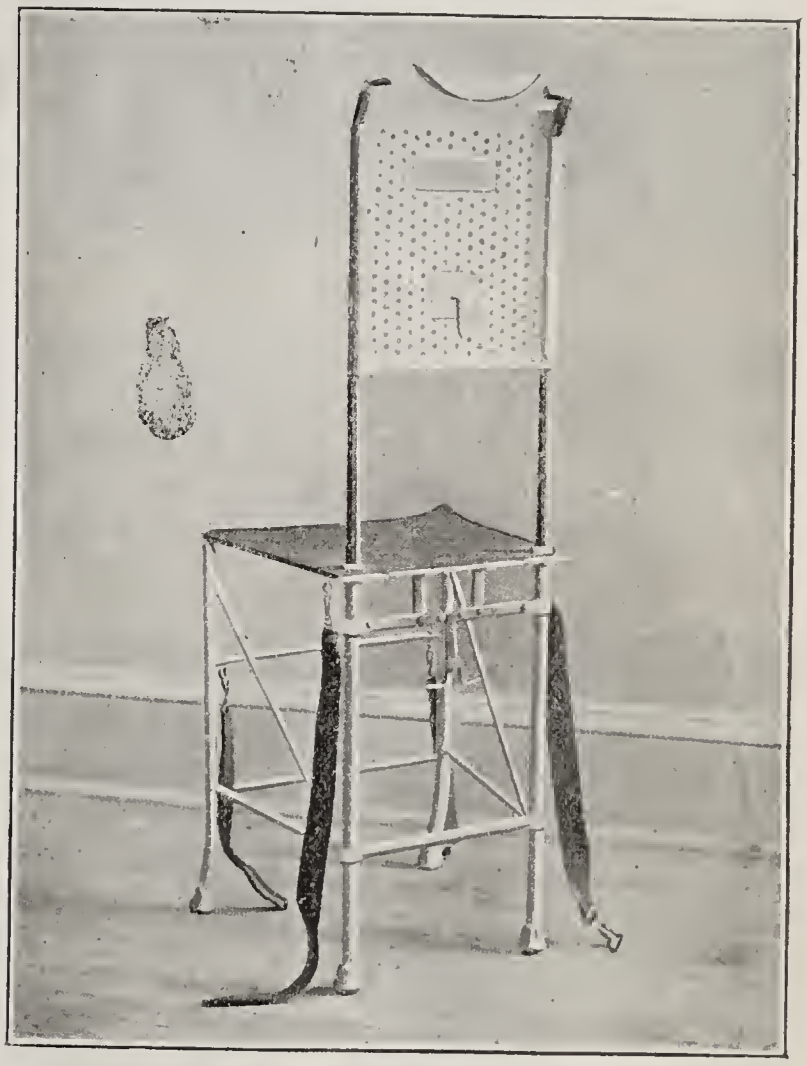


FIG. 1.

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*Read before the American Laryngological Association at its twenty-second annual congress. As the author of the paper was unable to attend the meeting, the unanimous request was made by the fellows present that the subject should be brought before the association at its next annual congress.

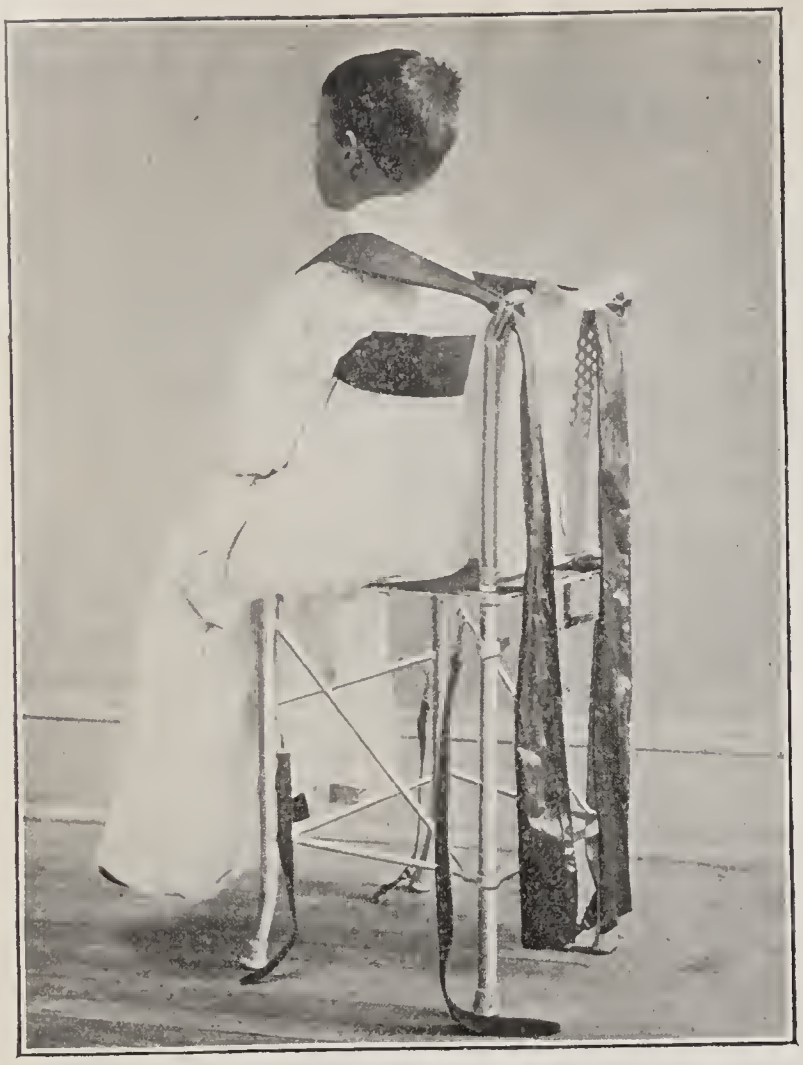

FIG. 2.

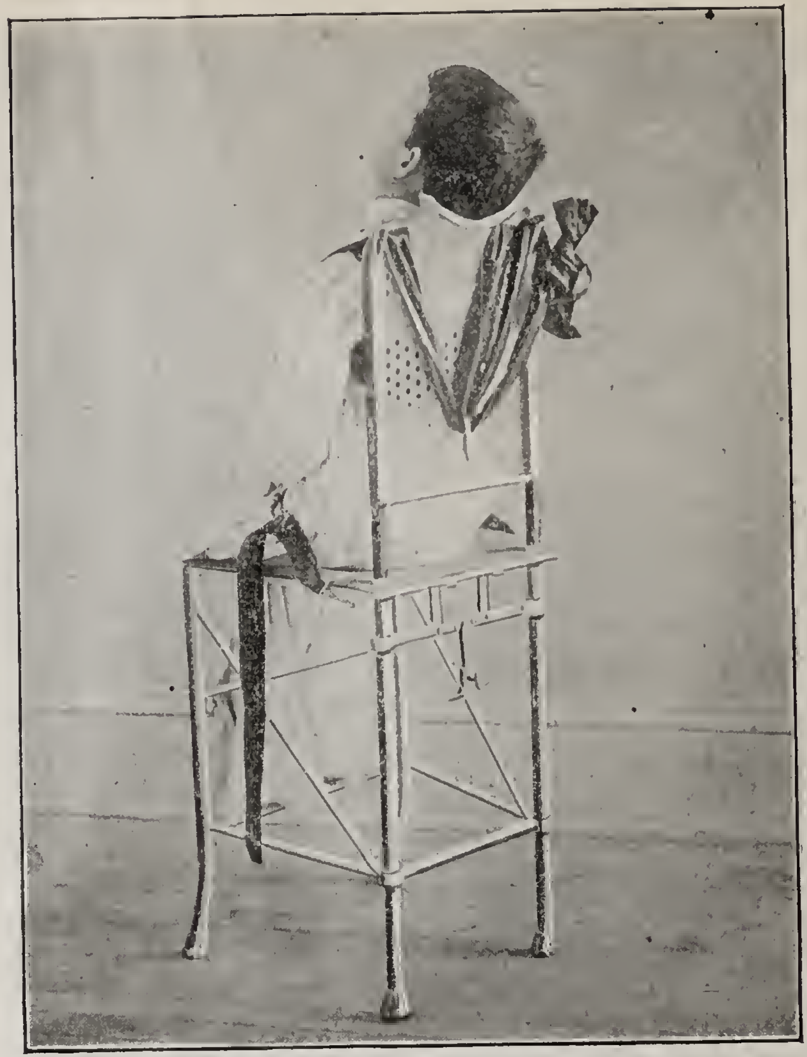

FIG. 4.

hæmorrhage occurs, the blood can either be caused to drain out from the mouth or nose by tilting the head well forward, or be caught in sponges passed through the mouth to the posterior pharyngeal wall. It is alleged that disaster is courted when operations are performed in this position, and that if blood flows into the lower air-passages while the cough reflex is abolished, one has only himself to blame if either pneumonia or violent bronchitis occurs afterward. Theoretically, that seems a plausible statement, but, when confronted with the fact that in nearly a thousand operations performed with the patient in the upright position by my associate, Dr. Dudley, and myself neither such an accident, nor, indeed, any other serious accident, has happened, the objection would seem to be deprived of its weight. I believe that the advantages of the upright position, which are susceptible of demonstration, are so many and great that it is destined to become the accepted position in the future for ether operations upon the nose, nasopharynx, and fauces. I do not regard it as wise to operate upon the larynx or trachea with the patient in the upright position, because the danger of blood flowing into the lower air-passages is, under such conditions, a real one.

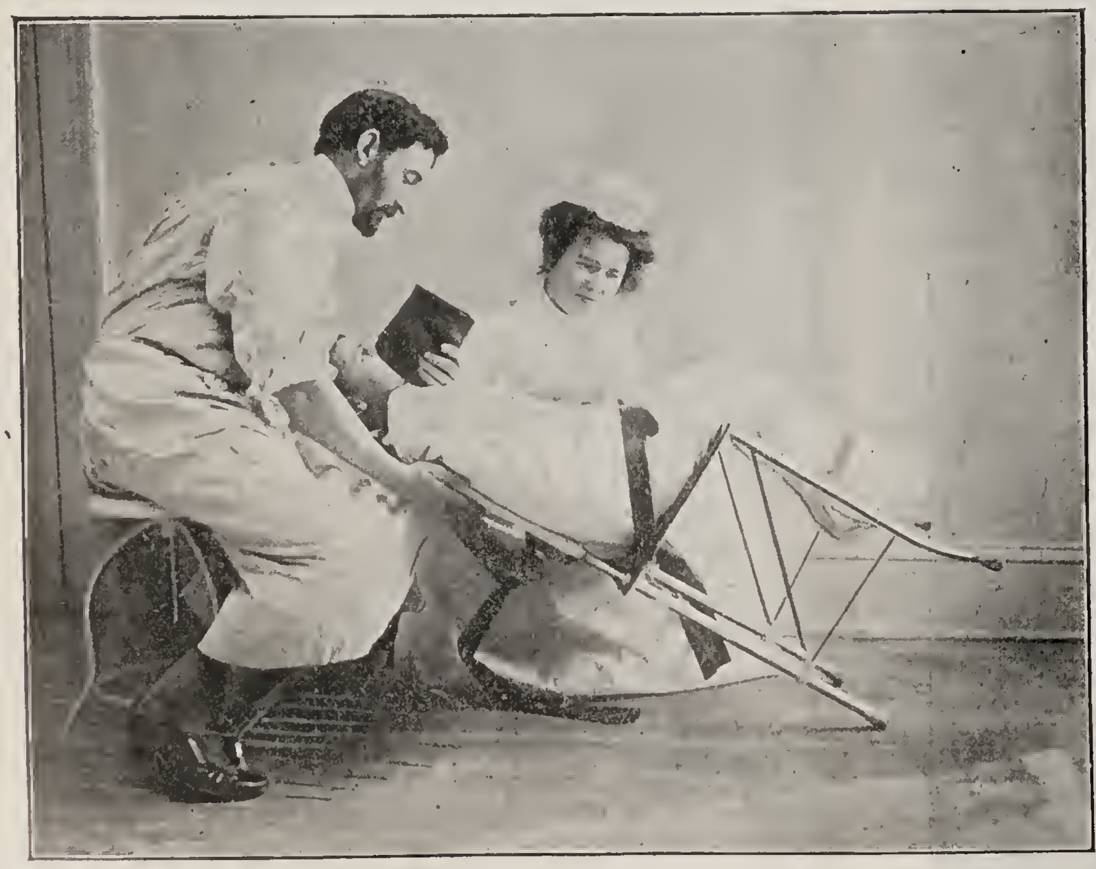

FIG. 3 shows the manner of placing the patient in the chair in the extreme tilted position. The anæsthetist is adjusting the back of the chair so that the head of the patient will fall into the head rest, and the nurse is adjusting the shoulder bandage to the chair in the manner represented in Fig. 4. From the position shown in Fig. 3 the body is slowly raised to the upright posture.

I have used the upright position in ether operations for quite a number of years, utilizing ordinary chairs found in the homes of patients or in the hospitals for the purpose. As a result of that experience I have been enabled to devise an operating chair which has now been in use for about three months, and which seems to answer the purpose exceedingly well. The chair (Fig. 1) belongs to the class of furniture known as aseptic furniture, but, as in its construction, wherever possible, bicycle tubing is used instead of iron rods, the objection of undue weight, usually associated with iron furniture, is entirely overcome. The side supports of the back of the chair are made to slide into the rear legs. This greatly simplifies the construction of the chair and permits the back to be shortened or lengthened with ease. It can be shortened sufficiently to fit the back of a child of eighteen months or lengthened to fit the longest back of an adult. The top of the back is turned into a curved scroll to receive the head of the patient. On each side of the head-piece are two openings through which the bandage is passed which holds the patient to the chair. The back can be fixed firmly at any height by means of a clamp below the seat. The seat, which is covered with corrugated rubber to prevent the patient from sliding forward, is short enough for a child, but long enough to accommodate an adult comfortably. It is of such a height that the operator, by sitting on a revolving stool before a child or standing before an adult, can bring his head opposite the head of the patient.

The method of placing a patient in and fastening him to the chair is as follows: After the anæsthetic has been administered in the horizontal position long enough to overcome in part the muscular rigidity, the patient is lifted upon the chair, which is tilted very far backward, and held in that position by an assistant. This brings the knees about on a level with the head, and the circulation is not disturbed. Before anæsthetizing, and before the body is wrapped in a blanket, a bandage of stout linen or canton flannel, four inches wide and twelve feet long, is passed across the back over the scapulæ, brought out under the axillæ, and turned up over the front of the shoulders (Fig. 2). After the patient is in the chair, in the extreme tilted position, the back of the chair is adjusted so that the head of the patient will fall into the rest at the top (Fig. 3). The shoulder straps are then passed through the openings on each side of the head rest, turned downward and caught under a hook on the back of the chair, then turned upward again and, after being caught over the upper end of one of the side posts, are tied together (Fig. 4). This draws the head and upper portion of the patient's body firmly to the back of the chair. Two broad leather straps, fastened to the back of the seat of the chair, one on each side, are then passed around the hips and abdomen and caught together with a clamp buckle. The legs below the knees are fastened with straps in a similar manner and the adjustment of the patient to the chair, which takes but a minute, is completed. The chair and patient are carried to the place of operation, the back of the chair is slowly raised, and by the time the upright position is reached the patient is sufficiently anæsthetized and is ready for operation.

It is very important that the chair should be raised to the upright position slowly, for a sudden change from the prone to the upright position while the patient is insensible is apt to produce cerebral anæmia and a loss of cardiac balance. I regard this feature as altogether the most important in this procedure. In my early operations I experienced considerable difficulty because of the too hasty elevation of the head. Since then the upward movement has been more deliberate, and I have not observed the slightest disturbance which could be attributed to the change in position.

After the upright position has, in a gradual manner, been attained, the patient is under as complete control and in as safe a position for the subsequent operative manipulations, as he would be if in the prone position. No time is lost in placing the patient in the chair and raising him to the upright position, as it is done during the time which would otherwise be used to bring him under the influence of the anæsthetic to a degree sufficient to permit operation. Anæsthetists acquire the knack of placing the patient in the chair and raising him to the upright position in the first or second lesson. The patient attached to the chair in this manner is practically a part of it, and can be turned from side to side or tilted forward without in the least disturbing his relation to the chair.

The advantages which may be claimed for the upright position are great and many; the disadvantages small and few. One of its chief recommendations is the reduction of the amount of hæmorrhage during an operation. During the removal of lymphoid growths from the pharynges of children, the hæmorrhage is rarely as much as an ounce, but is usually less than half an ounce. During operations of the same character while the patient is in the prone position or with the head hanging over the edge of the table, the amount of blood lost, as estimated by a number of authorities, varies from two to eight ounces. Operations upon the nasal sæptum, during which superabundant tissue is removed and the sæptum incised and broken, are commonly performed in the upright position with a loss of less than one ounce of blood, and when the suprarenal capsule solution is applied I have known as little as three drachms of blood to be lost. Hæmorrhage during this operation when the patient is in the horizontal position is, at times, very free, but the average quantity of blood lost has not yet been determined. The amount is, however, very much in excess of that lost when the patient is in the upright position. Dr. Emil Mayer, one of the most active operators for correction of deflection of the sæptum, has agreed to make an estimate by measuring the amount of escaping blood in a long series of cases.

The explanation of the difference in the amount of blood lost in the two positions lies in the fact that, under ordinary conditions, when the body is upright there is less blood pressure in the vessels of the head than when the body is in the prone position. This is especially true when the patient is under the influence of a general anæsthetic. The amount of blood which can be withdrawn from the body without harm varies in different individuals. A moderate amount of bleeding will do no harm in the comparatively healthy, but the very young, the aged, the feeble, the cachectic do not bear well the loss of much blood. The abstraction of a considerable quantity of blood from an anæmic child adds to the cachexia, diminishes its rallying powers, and reduces the bodily resistance in the event of the onset of any special disorder. Shock is felt more by the child than by the adult, and, though the child recovers from the shock more rapidly, the ultimate recovery will be retarded if a considerable amount of blood has been lost.

I am of the opinion that the middle-ear complications, such as acute catarrh and suppuration, which occasionally occur after operation in the nose and nasopharynx, are commonly caused by the retention of blood clots about the Eustachian eminences. When operations are performed in these cavities with the patient in the prone position or hanging-head position, the blood collects in the vault of the pharynx, which, in such a position of the head, acts like a cup to receive the blood. Being exposed to the air, the blood quickly decomposes, becomes septic and irritating, and acts in causing inflammation in the middle ear in much the same way as a postnasal cotton tampon too long retained. I have yet to see a case of inflammation of the middle ear occurring after ether operations upon the nose or nasopharynx in the upright position, and this I attribute to the fact that the escaping blood is, because of the position, drained into the nasal cavities or lower pharynx and is, therefore, not permitted to remain in the vault of the pharynx in adhering clots, to become a source of possible irritation to the highly sensitive aural structures in the immediate neighborhood.

Another recommendation for the upright position is in the retention of the usual relationship between operator and patient. So earnestly was the maintenance of the relationship sought by one of our American operators that he placed the patient face downward, with the head over the edge of a chair, and operated while lying upon his back and looking up into the patient's face. I believe that much more thorough and expeditious work can be done in ether operations if the relation of the operator and patient is the same as that employed in everyday work in examining, treating, or operating under local anæsthesia. Operations with the patient's head hanging over the edge of a table, or when the body is in the prone position and the head is turned to the side, must of necessity be much more awkward and difficult than when the head is upright. In the upright position one sees the various parts in the mouth, throat, nose, and ear in the relation, one to the other, in which he is accustomed to seeing them, and while the patient is in that position the operator is apt to map out the field for operative procedure. Therefore, if the upright position is employed in ether operations, it is fair to assume that the manipulations will be much easier, that a much better opportunity will be afforded for the display of skill, and that the operative work will be done more accurately and thoroughly.

The reasons why the upright position should be employed in ether operations upon the nose, throat, and ear may, in conclusion, be summed up as follows:

1. The very considerable reduction in the amount of blood lost.

2. The reduction of the chances of ear complications, by securing complete drainage of the nasopharynx of blood.

3. The ease, thoroughness, and accuracy with which operations can be done in the shortest time, by the retention of the usual relationship between operator and patient.

THE PRESENT STATE OF OUR KNOWLEDGE CONCERNING THE CAUSE, NATURE, AND TREATMENT OF ASTHMA.

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ASTHMA has for a long while possessed an interest for the medical profession and called forth an expenditure of thought in the endeavor to unravel the mystery of its pathology and successful treatment unequaled by any other disease to which flesh is heir. This is not simply because asthma is common, or because it shows a predilection for the apparently most robust specimens of manhood, as also those endowed with the highest intellectual gifts, but rather because it is *per se* in many particulars a unique and distinctive disease—by reason, for example, of the spectacular paroxysmal attacks, provoked as they sometimes are by peculiar and apparently trivial causes, and their equally unaccountable disappearance, the well-demonstrated psychical factor in many instances, and the individual difference of different cases.

As, however, our acquaintance with this and other diseases grows, it must become apparent that asthma is not in reality an isolated pathological specimen, but many of the features and so-called characteristics are held by it in common with certain other affections which have always been and are even now differently classed.

Some years ago Trousseau characterized asthma with the strongly descriptive designation of "epilepsy of the lungs." Examining into all the peculiarities of asthma and epilepsy, and studying them in the light of recent medical progress, we must admit that the expression is something more than a mere happy figure of speech.

These two diseases resemble each other not only in that both are characterized by periodical spasmodic explosions, in the intervals of which the patient enjoys comparative health; not only in that both rest upon a neurotic constitutional basis, and are superinduced by influences which powerfully affect the nervous system; not only, too, in that both are devoid of gross structural changes in the exact location of the manifestation, and that, in both, diseased conditions in other organs play a prominent rôle as to both causation and cure, but also because a close analogy is found to exist, moreover, in regard to the chemistry, heredity, and even other features of the two diseases. Of late much weight is given to the so-called uric-acid causation of asthma, and, though the relation may not be, as I believe, correctly expressed, there can be no doubt that the diathesis generally called by that name is commonly associated with asthma.

According to the investigation of Haig and others, the same changes take place in the constituents in the urine, and they bear the same relation to the attacks in epilepsy. Patients with either disease, too, are likely to exhibit atheromatous change in the arteries. In both, the attacks are generally preceded by prodromes (in epilepsy called aura) and heredity plays as prominent a rôle in the one as in the other. What is more remarkable in regard to the last-mentioned is, that an asthmatic not infrequently gives a family history of epilepsy, and *vice versa.*

Even the treatment, though arrived at upon purely empirical grounds, will be observed to be remarkably alike for the two diseases. In general the motor depressants will be found to be the most serviceable for both affections, and morphine and nitroglycerin are remedies frequently employed in controlling the paroxysms of asthma as well as the epileptic seizure.

Besides epilepsy, two other affections, viz., migraine and angina pectoris, will be seen, upon close inspection, to possess a number of points in common with the disease we are discussing.

I think it would not be a wholly useless undertaking, were the time at my disposal, to compare these affections one with another, and to trace out their points of similarity. To unify—in other words to group like phenomena—is one of the first principles of science, and in medicine it is always productive of the best practical results.

If we are able to bring into the same class with asthma certain other affections, previously independently considered, we thereby at once adopt the readiest method of enlarging our knowledge of the whole class. Each fact newly discovered or already known with regard to one affection of the class becomes *a priori* entitled to be considered hypothetically as belonging to each of the others, awaiting only to be confirmed or denied by the tests of actual observation and experiment.

Does it not seem, then, a proper and natural surmise that affections which present so many similarities as the four mentioned, in their cause, nature, course, and treatment, may resemble each other also in respect to their pathology? Unfortunately, in no one of them has the pathology been definitely determined, in which respect they may again be said to resemble one another. While we cannot, therefore, apply the pathology of one with any degree of confidence to the other; nevertheless, *cæteris paribus,* that theory must be acceptable which would best fit all the members of the group.

In recent times numerous theories have been propounded to explain the causation and the mechanism of the asthmatic paroxysm. According to one school of clinicians the phenomena are explained by supposing a paralysis of the muscles of expiration to take place; this, they say, readily accounts for the peculiarity of the breathing, especially the lengthened expiration as compared with the inspiration. Another school objects to this theory on the ground that, as the expiratory force rests not alone in the muscles, but in the elasticity of the lungs and chest-wall, whatever should destroy their elasticity would be permanent in its effects—and therefore they say it is not paralysis of the expiratory muscles, but a spasm of the muscles of inspiration, which explains the attack.

The chief, if not the sole, factor in the production of the asthmatic paroxysm, according to certain other authors, is the spasmodic contraction of the diaphragm. Some maintain that the essential feature of asthma consists in a special form of inflammation during attacks. Some consider it preeminently a nervous manifestation, while others prefer to explain it upon the theory of mechanical obstruction taking place in the bronchial tubes.

The rhinologists are much inclined to give a very prominent rôle to the nasal organs in the production of the attacks, while lately there has grown up a school, led by Haig, which holds the asthmatic attack to be owing to the presence of uric acid in excess in the blood.

At the present day the differences in regard to the pathogenesis of asthma have almost narrowed down into two factions—on the one hand, those who believe that vasomotor disturbance in the pulmonary circulation is the essential cause of the attacks; on the other hand, a school which, basing its contentions upon the discovery of Reissesen of the existence of smooth muscle fibres in the bronchioles, holds that the asthmatic paroxysm is due to spasm of the bronchial muscles.

For even those who hold other theories in regard to this affection presuppose the action of one or the other of these two causes as a coexistent factor. For instance, both Leyden (Virchow's *Archiv,* Bd. liv, 1872; p. 321), who advanced the theory that the octahedral crystals found in the asthmatic sputum brought on the attacks, and Curschmann (*Deutsches Archiv. f. klin. Medicin,* Bd. xxxii, 1883, p. 1), who attributed a similar part to the presence of the spirals bearing his name, were agreed in accepting the hypothesis of a bronchial muscle spasm, each attributing to the respective products found in the sputum only accessory rôles in the ætiology of the disease.

Wintrich (Virchow's *Handbuch der spec. Pathologie und Therapie,* Bd. v, Abth. 1, Erlangen, 1854, p. 198), the champion of the diaphragm theory, likewise accepted the theory of bronchial spasm, maintaining only that it was of less importance than the diaphragmatic spasm. Lebert attempts to join these two theories in another way by maintaining that the attack begins by spasm of the bronchial muscles, the contractions of the diaphragm taking place later. Biermer (Volkmann's *Samml. klin. Vorträge,* No. 12, Leipsic, 1870) was one of the most resourceful, as well as one of the earliest, defenders of the theory that asthma is due to spasm of the muscles of the bronchioles. It was also adopted by Romberg and by Trousseau, and is to-day, I believe, the theory most generally accepted.

Weber is commonly credited with being the father of the vasomotor theory of asthma. According to this author, the paroxysms are due to swelling of the bronchial mucous membrane induced by a transitory paralysis of the nerve filaments which hold the fine blood-vessels always in a certain state of tonus. As a result of this paralysis, there is an increased blood supply to the mucous membranes, and there is a condition, as it is called by this author, of vasomotor tumefaction. The theory of Weber was upheld by the Vienna laryngologist Störk, and, indeed, in its original or variously modified form soon gained a large number of adherents. Parrot, for example, speaks of asthma as a secretory neurosis, thus recognizing by inference a vasomotor disturbance. Kingscote (*Journal of Laryng.,* London, xiv, p. 336), who believes that a great number of asthmas are due to cardiac dilatation, supposes the latter condition to act by irritating the pneumogastric nerve; and Brissard, who believes in the occurrence of a specific asthmatic catarrh, also thinks that the same is superinduced by a vasomotor disorder.

Schmidtborn (Volkmann's *Sammlung klin. Vorträge,* No. 328, 1889) differed with most of those who advocated the vasomotor causation of asthma in holding that, instead of paralysis there was a tonic contraction of the fine pulmonary arterioles.

This last-mentioned theory does not seem to have made a very great impression, and, yet, if there is any vasomotor disturbance at all it seems impossible to escape the conviction that at least at times there must prevail a constriction rather than a dilatation of the arteries. As Schmidtborn pointed out, this would account for the paleness of the cyanosis of the skin during an asthmatic paroxysm, in spite of the fact that apparently a sufficient amount of air enters the lungs.

Another and a yet stronger argument in favor of arterial contraction is in the treatment which is employed against the attacks. Chloral hydrate, atropine, nitrite of amyl, nitroglycerin, and drugs which produce arterial dilatation are those which are successfully used in asthma—not the vasoconstrictors. The action of atropine in overcoming contracted pulmonary arterioles has been well illustrated by an experiment of Lauder Brunton's, who injected muscarine into the jugular vein of animals. A general contraction of the arteries of the lung took place, with a pale, anæmic condition and an empty left heart; but the circulation was restored to its original state by the subsequent injection of atropine.

It would carry us much beyond ordinary limitations to say all that might be said for and against the various theories of the pathogenesis of asthma. Only it may be mentioned by way of objection to the bronchial spasm theory, that it seems unlikely that this spasm would not be overcome by the increased inspiratory force which occurs during the asthmatic paroxysms; and against the theory of mechanical obstruction from the products of specific exudative catarrh it may be urged as an objection that, did such hindrances exist, they ought to impede inspiration as much as expiration, which we know not to be the case.

I have already mentioned as an objection to the theory of paralysis of the muscles of expiration that such a condition would not be merely temporary and paroxysmal, but would be permanent in its effect. Finally, in regard to the theory of diaphragm contraction, I will refer to recent X-ray studies of Levy Dorn, who failed to observe a vestige of diaphragm contraction in a case which he submitted to an X-ray examination during an attack.

The only theory of asthma causation against which no fatal objections can be urged, and which harmonizes what is known of the actual pathology of this disease and accounts in the most satisfactory manner for all the phenomena, is what is generally referred to as the theory of vasomotor causation, at least in some modified form which recognizes the Schmidtborn amendment. There are on record a sufficient number of cases which prove that lesions in the sympathetic have been able to produce asthmatic paroxysms, as, for example, the case reported by Montauk, in which, postmortem, there was found an encephaloid growth compressing both recurrent nerves; or the case which Gaubrice mentions of asthma due to compression of vagus nerves by a growth in the thyreoid.

Asthma, as is well known, is very frequently a reflex manifestation of disease located in various parts of the body. The nose, pharynx, stomach, heart, intestines, reproductive system, and probably the skin are the chief seats of diseased conditions which reflexly give rise to asthma.

The sympathetic system has been spoken of by Gaskell as a physiological extension of the vagus. However correct this may be, there is no doubt that the lungs are placed in very close touch with other organs through the distribution of this nerve, and they are especially the organs most richly supplied by the sympathetic, which when diseased gives rise to asthma.

Rhinologists have so often had the opportunity to observe cases of asthma relieved by treatment addressed to the nasal organ that some of them have gone to the extent of maintaining that all asthmas are of nasal origin. While, indeed, brilliant results have been obtained by removing polyps from the nose, cauterizing an hyperæsthetic area, sawing off exostoses, or perhaps correcting a deflected sæptum, we are obliged to acknowledge that enthusiasm, rather than a calm, broad view of things, has dictated those sweeping statements made by some specialists. We cannot ignore the fact that asthmas arise reflexly from other organs as well as the nose, but, as the latter organ is very richly supplied with filaments of the sympathetic derived from the sphenopalatine ganglion, and as it forms, too, one end of the respiratory tract, it is only what we should have suspected, that it should be, of all organs, the most common source of reflex asthmatic attacks. Besides the reflex character of the affection, we might mention the psychic peculiarities, the influences of suggestion, and the bizarre influences which are at times sufficient to produce attacks, as favoring the sympathetic origin.

The occurrence of prodromes, such as diuresis, headache, drowsiness, neuralgia, and excitability, due probably to a functional irritation of the sympathetic, and the flushing of the face, and like sympathetic phenomena which sometimes accompany the paroxysm, speak in the same direction. The association sometimes with asthma of urticaria factitia is also very suggestive. Ungar (Ref., *Hagenberg Beiträge zur Lehre von Asthma bronchiale,* Göttingen, 1899) was led to suppose that both affections were due to a vasomotor influence, in other words, that the asthma as well as the urticaria was to be regarded as a kind of angeioneurosis.

If the presence of eosinophilous cells in the sputum of asthmatics can be construed in favor of any theory at all, the only one that it could be, is the vasomotor theory. These cells, as a number of facts go to show, are directly produced by sympathetic irritation, and it is Neusser who speaks of eosinophilia as a sort of *secretory neurosis.* It occurs in most functional nervous disturbances, especially those affecting the skin or the sexual system.

As already mentioned, the deductions which may be made from successful therapeutical applications in asthma go also to sustain the vasomotor origin of this disease; and, finally, is it not the only theory which could at the same time be applied, properly modified, to those other affections which bear so many points of analogy that they seem entitled to be put in the same category with asthma?

The theory of spasm or of paralysis of the muscles certainly will not fit those affections, and, indeed, it will be seen that many of the features mentioned which mark the vasomotor character of asthma belong as well to migraine, to epilepsy, and to angina pectoris.

So far as the pathogenesis of migraine is concerned, the generally accepted theory is that it is of sympathetic origin, due either to stimulation (Du Bois Reymond), to paralysis (Mollendorf), or to excitation followed by paralysis (Jaccoud) of the cerebral vasomotor nerves.

The pathogenesis of epilepsy and that of angina are as yet unsolved problems. The painstaking researches of Tadviski, Labordi, Féré, Chaslin, Brown-Séquard, and others in regard to the pathology of the former have resulted generally in nothing positive. As stated by Blocq and Marinesco (*Semaine médicale,* November 12, 1892), in their review of the subject, in a majority of cases no appreciable lesions are present, and when they do occur, they are vascular lesions, probably of secondary origin.

It may be worth noting in this connection that Venturi (*Neurolog. Centralbl.,* Leipsic, March 1, 1890) has described a form of vasomotor epilepsy, just as Nothnagel recognizes types of vasomotor asthma and vasomotor angina. In regard to the last-mentioned affection, it is common to make a distinction between such cases as have atheromatous changes in the aorta or coronary artery and those which have not, the former being held to be "genuine," the latter pseudo-angina. But, apart from the facts that there is no essential difference in nature, and that some arterial changes may be present without ever giving rise to angina, the division is false logically, having neither ætiological nor pathological bases. The atheroma is not a necessary pathological accompaniment, and it does not explain the attack, and to make it the criterion of true and false angina is not more rational than to make a like distinction for migraine according as the temporal artery is or is not atheromatous.

There has grown up of late a strong faith in what is termed the uric-acid causation of asthma. It has long been a matter of common observation that asthma and the gouty disposition went hand in hand, and therefore the theory of Haig, Schlemmer, and others, to the effect that it was due to the accumulation of uric acid in the blood, has found a number of followers. Examinations of the urine seem to go to show that just before the attack it is acid and free of uratic deposits, but during the attack it becomes less acid and rich in urates.

While there can be no doubt that there exists a close relationship of some kind between this diathesis—term it uric-acid, lithæmic, gouty, arthritic, or what you will—and asthma (perhaps also, as Haig believes, migraine, epilepsy, and angina), there is room for a great difference as to what the relationship really is.

It is part of the generally accepted theory of the causation of asthma that a certain constitutional diathesis or predisposition must exist, through which the peripheral irritant or toxic product may act to provoke an attack. But our knowledge is still incomplete and unsatisfactory as to the precise chemical constitution of the toxic agent, and also as to how and under what conditions it or the local peripheral irritant acts to produce the attack. And there is good reason for believing that uric acid itself is not entitled to the prominent place given it by some authors in the pathology of the diseases with which it is associated, that, occurring as it does as the product of general cellular disintegration, and especially of the leucocytes, its presence is rather the indication of deeper-lying nutritional changes, resting, as it appears, upon a neurotic foundation.

After all, no matter what view we adopt with respect to the pathogenesis of asthma, we must admit our utter inability to explain this affection and to account for the phenomena upon a purely physical basis. Being, as it is, devoid of a gross morbid pathology, that is to say, without appreciable structural changes sufficient to explain its external manifestation, it is not unnatural that we should suspect some more subtle, hidden, intangible influence, such as could proceed only from the brain, to be active in its causation. And it is no wonder that in such diseases as these the Faith Curists have met with success, for it appears to be a rule that the influence of the mind is in inverse ratio to the amount of organic change existing. However that may be, certainly one of the most curious phases of this interesting disease is what may be called its psychic element. We have seen that the pathology of asthma is obscure and so far undemonstrated and undetermined, and that numerous irreconcilable theories are held in regard to the origin of the peculiar paroxysms which are its feature.

Turning now to the external manifestations themselves, the general course of the affection and its behavior under various circumstances and in different individuals, we find here, too, that we have to deal with a disease that is so capricious, so bizarre, so erratic, and so contrary, as almost if not quite to elude our understanding and fail to come within the laws derived from the study of pathology in general. One patient gets along best in the open, wholesome atmosphere of the country; another is free of his attacks only when he is breathing the smoky and dust-laden air of the city; one is well in a low-lying, marshy district; another will surely suffer if he goes there. One patient will be affected by a change of wind, another dreads thunderstorms, while a third is affected only by cold. It is the same with regard to over-eating as with climate and location. What is harmful for one may be eaten with impunity by another. One patient may eat anything and at any time, while another is certain to have an attack if he indulges in late suppers, or another if he touches certain forbidden articles. In nothing does asthma so well assert its individualism as in the variety of causes which may excite an attack. They are curious as well as numerous. Among the list of causes alleged by the asthmatic as being sufficient to provoke the attack are "fits of laughing or sneezing," "ipecac powder," "kerosene lamps," "wall paper," "eating nuts," "a fog," "the smell of lucifer matches," "the presence of cats or dogs," "sleeping on a feather mattress," "odor of a privet hedge."

It is curious to note that a patient will sometimes find that he can sleep with perfect comfort in one room in a house, and if he dares to change to another room in the same house, he will be certain to invite the paroxysms. Dr. Salter, of London, recites the case of an asthmatic who "could breathe perfectly well on one side of a hill, but not on the other, and that quite irrespective of level. If his breathing was at all affected it immediately became easy when the summit of this hill, which was a very low one, was passed—a few yards would make all the difference to the breathing; he seemed suddenly to step out of an asthmatic into a non-asthmatic air." An even more curious instance of the contrariety of asthma is that related by another English physician, Dr. Brackett. He knew two asthmatics "one of whom could only breathe in London, the other could only breathe in Norwood; if they attempted to go one to London, the other to Norwood, they were stopped on their journey by asthma and could not proceed, and what was very curious, they were both stopped at the same place; they could neither of them get beyond Camberwell Green." While differing one from another in so many particulars, it is nevertheless a striking fact in regard to asthma that a peculiarity acquired by an individual case (and they do seem to be acquired) shows a decided tendency to remain constant to that case. This may seem in strange conflict with the already declared capriciousness and variability of the disease. But it is really not so. The persistence of type is maintained only so long as the patient is subjected to the original external conditions; but when some new disturbing influence intervenes, which is able to produce a more powerful contrarily acting impression, the old cycle of repetition is broken, and a new one is formed which will exhibit no less aversion to change than the old. For example, and this is an actual case, an asthmatic has been to a certain locality, without ever having been troubled with symptoms of his disease, but now in the morning after arriving there he is awakened by the onset of a paroxysm. He does not understand it, since he has always been well there before, and he remains. The next morning he has another attack, only worse, and again the next and the next. Finding that the asthma promises to continue, he takes the cars and has got but a few miles distant when his breathing begins to become less oppressive, and finally he is rid entirely of his attack. He remains in the new locality for a certain length of time, until he thinks he may venture to try again the place he had recently left. To his delight he finds that he can remain there with the same immunity that he had always enjoyed previous to his late unfortunate experience. His last visit having begun well remained so, whereas the preceding, badly begun, remained bad, until the habit had been broken by a fortunate change of locality. Somewhat mysterious, if not unintelligible apart from the idea of the psychic factor, is the action of certain subtle influences of ordinarily imperceptible odors and animal exhalations in producing paroxysms of asthma. Trousseau is authority for the case of a man whose asthma was always relieved as soon as his bedroom was lighted by lamps. There is no end of cases which show an idiosyncrasy to the odor of certain drugs, especially ipecac, and the examples are continually multiplying of those whose attacks are provoked in the presence of animals, especially cats, dogs, horses, and rabbits. The acuteness of perception beyond that ordinarily possessed has been frequently tested. A skeptic, who mistrusted the statement of an asthmatic that ipecac would provoke an attack, surreptitiously opened a bottle of this drug in the room, and immediately the effect was apparent.

Another patient suddenly finds himself attacked with oppressive breathing, and does not understand the cause until it is discovered that as a joke a rabbit has been hidden beneath the sofa upon which he is reclining.

One patient discovered that the cause of his attacks was the presence of fresh fruit in the cellar of the house in which he had been staying. Another, on rising one morning, felt the paroxysm coming on, and, going to the open window in order to get a plenty of air, saw a deer standing below, which proved to be the cause of the attack.

How shall we explain a disease that presents such erratic, such fantastic, and such curious phenomena? It seems to possess directly opposed and contrary characteristics. It is constant, stable, and persistent, and, yet, at the same time is it not capricious, unstable, and changeable? It is uniform, yet arbitrary; it is resistant, and, on the other hand, it is impressible and yielding; it shows a tendency to habitude and repetition, and at the same time it is irregular, uncertain, and unreliable. It exhibits both a tenacity of type and an aversion to type.

In order to render in some degree intelligible these extraordinary and, as it would seem, paradoxical characteristics of asthma, it becomes necessary to summon to our aid the sister science, psychology. By the light thus afforded, it becomes evident that many of the phenomena observed in the course of this affection are strikingly suggestive of those which appertain to that still very imperfectly understood psychic state generally called hypnotism. The heightened sense perception, as in the sensitiveness to odors and influences too subtle to be appreciated by the normal individual, the susceptibility to impression (suggestibility), the disposition to conserve and repeat a peculiarity once acquired until negatived by a still more powerful suggestion, the imitativeness and tendency to habitude, cannot fail to arouse this suspicion. There are different degrees of hypnosis, and there are, besides, allied or cognate states. Psychologists recognize what they call *"suggestion à veille,"* that is to say, cases in which the suggestion is made, as well as carried out, in the waking state. If we can suppose the asthmatic to be at certain times, and under certain conditions, in a state in some manner allied to hypnosis, we shall have to assume that he is *en rapport* with himself instead of some second person. There are numerous instances which illustrate this auto-suggestion in the asthmatic. To give an example, a physician of this city, who has been for some years a subject of this dread disease, recently assured me that he was able to bring on an attack in himself at any time merely by fixing his mind upon it and drawing deep breaths. He many times made use of this accomplishment in his boyhood days, he says, when he particularly wished not to attend school. By his breathing in imitation of the asthmatic paroxysm, while his mind was at the same time concentrated upon it, in fifteen to twenty minutes a genuine attack would develop.

Finally, in support of the view that the mind exerts a potent influence in this disease, might be cited a number of cases which were plainly traceable to strong emotional shock. Excessive fear, grief, or misfortune, which have preyed intensely on the mind, are known to exercise a decided influence on the asthmatic; and certain cases are recorded whose origin was directly attributable to such causes.

(*To be concluded.*)

THE FUTURE OF SPECIALTIES.

By CHARLES B. KELSEY, M. D.,

NEW YORK.

The changes which are working themselves out in the practice of surgery at the present time are very radical. Some of them may be permanent, others only temporary, but it seems hardly possible that the old lines of demarcation between what a few years ago were considered as distinct specialties will ever again be established, certainly not for many years. Old dividing lines are broken down; specialties have been so broadened as to disappear, and even the practice of surgery as distinguished from that of medicine seems unlikely much longer to be confined to a special class.

We can all remember when surgeons were fewer than they are to-day; when the special qualities which must always go to the making of a good surgeon counted for much more; when it was considered necessary to make an accurate diagnosis of the character of an abdominal tumor, for example, before opening the abdomen; and when nearly every surgeon of repute had prepared his hand, and eye, and brain for the mechanical part of his profession by previous years of work in the dissecting room. Surgeons once were anatomists at least, and in addition were great clinical diagnosticians, with a special aptitude for operating gained by constant practice. But the diagnosis was the test of skill, and the man who made his diagnosis after the operation instead of before did not exist, simply because such men did not operate.

The great metropolitan hospitals at which such men operated and to which patients were sent from the surrounding country have been supplemented almost everywhere by the village hospital which cares for the sick in its immediate vicinity; and the village hospital has in its turn come into competition with the man who sends his surgery to no hospital, but operates upon his patients as he finds them.

These things are so patent that it is not necessary to dwell upon them, and the cause is as plain as the condition. It is simply the result of the struggle for existence in an overcrowded profession—a struggle which renders it necessary for men who have practised medicine exclusively all their lives to begin now to do surgery they would never have thought of attempting a few years ago —chiefly abdominal surgery.

Naturally, when a man finds himself driven to this condition, his first thought is about how to fit himself for it, and the way seems to be easy, for post-graduate instruction is freely offered everywhere.

The post-graduate student, as I have met him, from the young graduate who has never practised to the man who has passed the best years of his life in practice, is an eager searcher after knowledge; and the older he is the more in earnest he is, and the more his attention is turned toward practical things, or things which can be made useful in his practice.

When Loomis made the statement at a medical dinner some years ago that no post-graduate college could live in New York except by teaching its students how to perform gynæcological operations, he merely expressed in his own incisive way what he believed to be the true conditions of demand and supply. Such may or may not have been the case then, and it may also be now; or there may have been a change, as I think is true, and more attention may now be given by both teacher and student to medicine, and even to pathology and the microscope; but the demand for practical surgical instruction is still urgent.

There can be no more laudable ambition than this, none which the masters of surgery have always proved themselves more willing to gratify. The fault is not at all with the profession who wish to learn. Post-graduate instruction is a good thing, as is undergraduate instruction, and all scientific education; but it has been found necessary for the public good and the good of the medical profession to safeguard even undergraduate instruction and not to turn loose upon the world half-educated men. And the movement to do this came from the profession itself, and not from outside pressure. Is any such thing necessary as regards post-graduate instruction?

If it proved harmful both for the profession and for the public to grant diplomas to young men not thoroughly educated and who as yet had no patients, which permitted them to take the responsibilities of life and death into their incompetent hands, may it not be as harmful to grant a certificate of attendance at a post-graduate college? This certificate of attendance is not a diploma, it is true, because post-graduate colleges in New York have no legal right to grant diplomas. It has no legal weight. It is merely something intended to look very much like a diploma. And yet it presumably has some value, for it is eagerly sought after and paid for. No examination is necessary in applying for it, none on obtaining it. What is necessary is that the one who wants it should matriculate for a six weeks' course of instruction, should pay for the same, and should pay five dollars more for the parchment at the expiration of the six weeks. And what it really says is that the owner has attended practical instruction in the branches he selects, which is generally true. What he obtains, when framed and properly hung, is to all intents and purposes a diploma from a medical college in gynæcology, laryngology, or any other specialty he may select.

If the medical profession and the Legislature, by harmonious effort, have put an end to the granting of diplomas to undergraduates without examinations and other restrictions, may they not for their own protection some time find it well to take combined action upon these things?

Are these men trained as they should be, first, in surgical diagnosis, and, secondly, in technique; or do they in the majority of cases merely sit at a considerable distance and see an abdomen opened or a cervix repaired, and at the end of a few weeks, for a small sum of money, receive something which has all the gross appearance of a college diploma? Is there any real training fitting a man to do abdominal surgery, any test, such as an examination, to find out whether he has acquired fitness; or is there merely a chance to learn which the student may be capable of profiting by or may not, and which he may improve to the utmost or neglect entirely, according to his bent?

If this is the way in which some specialists are made, it does not at all follow that all are made in the same way, or that all who take advantage of the facilities offered in the way of clinical material and operative work by our post-graduate institutions are half-educated men. Good men will be found among them, and the standard in all institutions is not the same. From reading the description by Howard Kelly, of the post-graduate course in gynæcology at Johns Hopkins, this would appear to be a very marked improvement upon what has been described, and a man who has followed such a course as is there marked out might certainly lay some claim to both knowledge and experience.

Well do I remember an effort of my own some years ago to introduce some such improvement as this into the course of instruction in New York. But the effort failed, as it probably will for a time in all *unendowed* post-graduate colleges. In the end, however, it is likely to prevail, for the reason that without some such restrictions and requirements the certificate will be comparatively valueless.

The effect of such a wave of operative surgery as is passing over the country at the present time cannot fail to be very great, and the question is, Will it ultimately be for good either to the profession or to the public? In the end, unquestionably yes, but only after hard and bitter experience for the latter. At present it certainly is not for the good of either; but, just as the public have learned in the past to select specialists for the treatment of special diseases, so in the future they must learn to choose between the good and the bad, the educated and the ignorant, the man who has had experience and is skillful, and the man who without either experience or skill simply professes both for practice and income. The lesson is a hard one, but the public are learning it, and very rapidly. The inborn common sense and shrewdness of the American public is not entirely absent in medical matters, although it might sometimes appear so. Experience is a very practical teacher, and the woman whose ovaries have been removed without benefit, or whose rectum has been dilated for a few months for a stricture which never existed, has learned something.

The advice of every specialist to those who are desirous of coming into his special field, no matter what his own course may be, is invariably now, fit yourself for a surgical specialty by first learning general surgery. The result will be that a man who has once studied general surgery will never be a narrow specialist. Some one branch of work he may prefer, and that branch may in time come to him to the exclusion of others; but arbitrary lines will not limit him so closely as they have done in the past. We can all remember when gynæcology consisted practically of plastic work upon the uterus and vagina. It will never go back to it. The specialty to which I have devoted my own life is still thought by many to consist properly of piles and fistulæ, but it will never again be separated from gynæcology and genito-urinary surgery.

Since, for success in any specialty, a broader education will be necessary, this will be acquired before special work is begun. There will be fewer men who have begun as specialists and have never done general practice, or men will commence special practice after more years of preparation.

But specialists will not disappear, for the very same reason that they ever came into existence, which is that the whole field of medicine is too large to be covered by any one man, no matter how hard the exigencies of life may induce him to try; and those who have devoted the most study to any one field and acquired the greatest experience in it will always be sought after by the public to practise in that field.

THE ÆTIOLOGY OF PULMONARY TUBERCULOSIS, ITS COURSE AND TERMINATION.[*]

By S. A. KNOPF, M. D.,
NEW YORK.

Mr. President, Fellows of the American Electrotherapeutic Association, and Invited Guests: My first duty is to thank you for the honor conferred upon me by the invitation to address you this afternoon. The theme of my discourse has not been selected for me, but, of the eight or nine titles of subjects which were submitted to me in writing by your chairman of the committee on arrangements to choose from, the one which is the title of this paper was the only one which did not treat of electricity, and that is the reason why I selected it.

Most of you are masters in electrotherapeutics, while your humble servant is only a novice who probably would have done much better had he simply come here to listen and to learn, instead of coming to talk, the more so, since it will be exceedingly difficult for me to present to you anything new in regard to the ætiology, the course, and the termination of pulmonary tuberculosis. I have only one hope, and that is that the presentation of my theme may call forth such a lively and interesting discussion by the many electrotherapeutists and phthisiotherapeutists present that the result of your deliberations will be of benefit to all of us as physicians and a blessing to our patients.

The ætiology of tuberculosis in man should be divided into two great parts. First, we should study the sources of infection, and, secondly, we should investigate the causes which make it possible for the *Bacillus tuberculosis* to incite in our system pathological changes characterized by the production of the tubercle, the breaking down of the affected tissue, and the accompanying phenomena due to the toxine or poisonous secretions of the microorganisms.

The most frequent source of infection is, perhaps, after all, the one from man to man. Tuberculous sputum deposited carelessly on the floors of our private and public buildings is allowed to dry and become pulverized, and thus the air breathed in these localities is often laden with bacilli. We know that a consumptive may expectorate as many as seven billions of bacilli a day; but this great number of dangerous microorganisms may be eliminated not only by the consumptive in the last stages of the disease, confined to his bed, but also by the tuberculous individual who is up and about, perhaps even attending to his vocation. The remedy of this evil, which is as well known to you as to me, lies in the education and the conscientiousness of the tuberculous invalid. If he is careful and never expectorates except into a proper receptacle, one of the main sources of communicating the disease to his fellow-men will be done away with.

Whether the patient uses a pocket flask (Fig. 1), such as you see here, a sanitary spit-cup (Fig. 2), one of Seabury & Johnson's spitting boxes (Fig. 3), Japanese handkerchiefs, or simply pieces of muslin, matters little, so long as he does not expectorate in any place where the infectious sputum may dry, become pulverized, and be inhaled with the dust of the atmosphere.

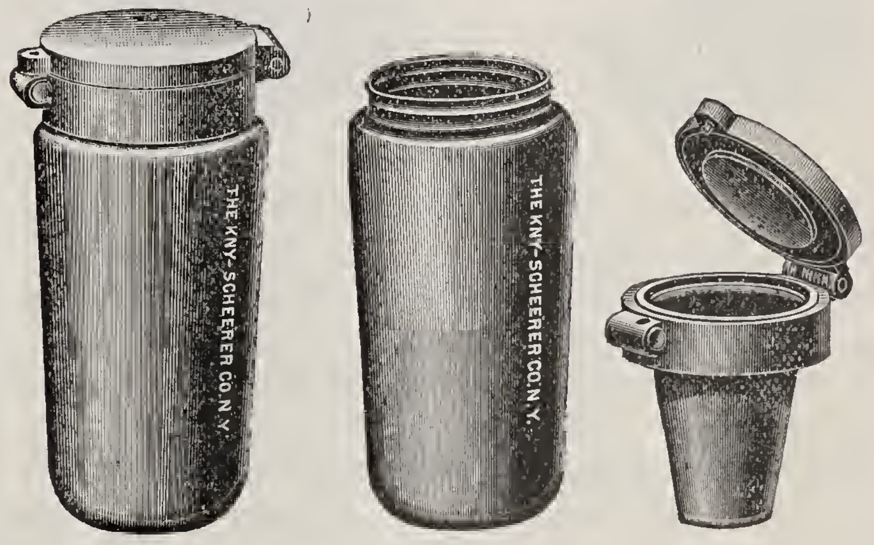

Fig. 1.

Drop-infection, that is to say, the expulsion of particles of saliva containing the bacilli, during cough without expectoration, or while talking or sneezing, does certainly exist. Experiments, however, have demonstrated that for the infection to take place through the expulsion of particles of sputum a close proximity to the invalid is essential, for those particles could not reach a person three or four feet from the patient. Again, this danger is still more reduced by the fact that not all individuals afflicted with pulmonary tuberculosis have bacilli in their saliva, also, the time the physician, nurse, or friend need be in close proximity to the patient is rarely longer than a few moments.

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[*] Opening address for a "symposium" on Tuberculosis, delivered by invitation before the American Electrotherapeutic Association, at its tenth annual meeting, held in New York, September 25, 1900.

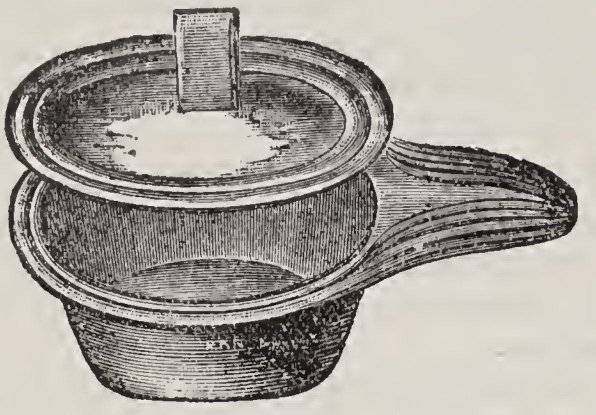

FIG. 2.

Next, or equal, in frequency, is the method of infection caused by ingestion of the bacilli with food, such as meat, milk, or butter. The duty of the State or municipal government is to protect its citizens by good bovine laws from this source of infection as far as it is possible. It is not within the scope of this paper to speak in detail on the combat against tuberculosis in the bovine race; all I may be privileged to say is that without the Federal government at the head and a harmonious working of all States and municipalities it will be impossible to effectually diminish bovine tuberculosis as a source of infection in the human race. Do not blame one State for becoming discouraged in expending thousands of dollars every year for the purpose of diminishing tuberculosis among cows, when in the neighboring State nothing at all is done, except that individuals who have an eye for business resort to the following practice: Knowing that the neighboring State with good bovine laws will not allow any animals afflicted with the disease within its borders, they drive all the sick and emaciated cattle into that State under cover of darkness. An obliging farmer boards them for a good commission, and at the next visit of the sanitary inspector they are tested, found tuberculous, and killed, the owner receiving a good compensation for his well-nigh worthless animals.

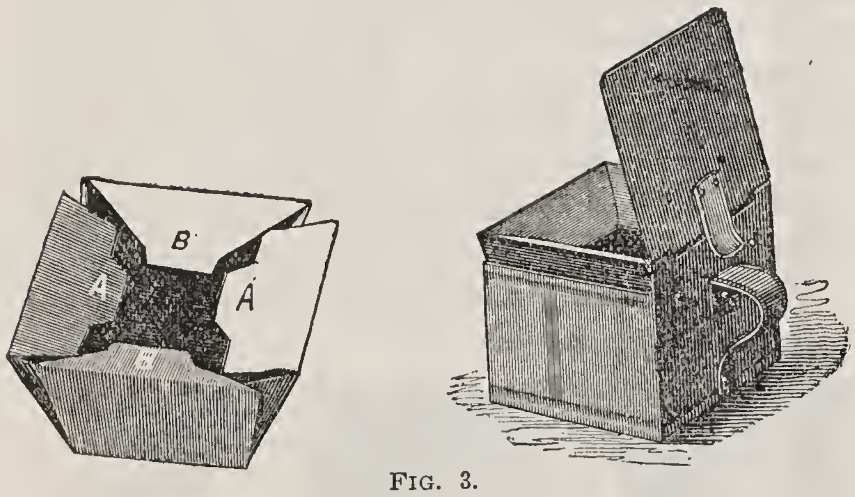

FIG. 3.

Only through Federal laws and regulations can such evils be remedied. You all will agree with me when I say that not only is the time ripe for the establishment of a Federal department of health at Washington, with a competent secretary, preferably a trained sanitarian and physician, at the head, but it is an urgent necessity, since our national welfare in no small measure depends upon the creation of such an institution. Nearly all civilized countries have a ministry of public health; surely the United States, the greatest and most progressive republic in the world, of which we all are so justly proud, should not be behind any country in this respect. Think of the advantage of having a national board of health, in constant communication with the officials of every State, city, and county board of health in the Union! Disasters, such as the one which befell our sister State Texas recently, the outbreak of epidemics, and even that of the greatest of all plagues—human tuberculosis—could certainly be more effectually dealt with than heretofore.

Individuals can protect themselves against the ingestion of tuberculous food substances only by cooking thoroughly all meat coming from doubtful sources, and by boiling or sterilizing the milk derived from cows not known to be regularly examined and tested.

Through kissing tuberculous individuals, tubercle bacilli may enter the digestive tract and an infection may thus take place. Self-infection by the ingestion of the expectoration is frequent in the insane suffering from consumption, and this may even happen in sane tuberculous patients who, out of false modesty or habit, swallow their tuberculous sputum. Ingestion may also be considered possible through infected hands, and patients and nurses should always be enjoined to wash their hands carefully before touching food. Bacilli have been found in cigars made by hand. This may be accounted for by the fact that the outer leaf of the cigar is moistened with saliva, and if, as is not infrequent, the cigarmaker happens to be tuberculous, the bacilli may thus be conveyed to the smoker. The main remedy for this must lie in the sanitary supervision of cigar factories; no tuberculous individual should be employed there, for he may not only transmit his disease in the mode just described, but by the close proximity in which cigarmakers labor he may convey this disease to his fellow-workmen. The same precaution should be exercised in printing offices, tailoring shops, etc. Also, no patients suffering from pulmonary or laryngeal tuberculosis should ever be employed in occupations which demand the handling of food substances.

The third source of infection is by inoculation, to which, perhaps, are most frequently exposed the nurses and friends who clean the vessels into which tuberculous patients have expectorated. The replacing of all porcelain vessels by metal cuspidors and the injunction to wear rubber gloves during the process of cleaning these vessels will lessen the, alas! very frequent accidents of local inoculation of tuberculosis.

Medical students, dissecting bodies of individuals that have died of tuberculosis, and pathologists, handling tuberculous specimens or performing autopsies, should exercise extreme care; so should surgeons and nurses treating tuberculous surgical affections.

Veterinarians, too, should be exceedingly careful to avoid inoculation, not only when performing autopsies, but also when testing cattle for tuberculosis. The recent death of a talented American veterinarian through the accidental inoculation of tuberculin is still fresh in our minds.

The ritual act of circumcision, practised according to the orthodox Jewish belief, has in numerous instances been the occasion of transmitting to a healthy child the disease in question. Cases have been reported by Lindemann,* Jacobi,† and others. The operation of circumcision, when skillfully and rapidly performed, is in itself trifling, but the sucking of the prepuce afterward makes it dangerous. This latter portion of the procedure should be either prohibited or done by the aid of a glass tube, as practised in France and Germany.

In short, whenever a tuberculous secretion or substance enters an open wound, inoculation is possible. Thus, tattooing or the simple procedure of piercing the ear lobe has given rise to local tuberculosis, owing to the ignorance or carelessness of the operator when the latter has happened to be consumptive.

In speaking of infection by inoculation, we must mention yet inoculation of the patients themselves. For example, it has happened that a consumptive, injuring his finger, has put it into his mouth, the bacilliferous saliva has entered the wound, and the result has been a local tuberculosis.

After having rapidly reviewed the main causes of infection, we will now briefly study the causes which make it possible, after the entrance of the bacilli into the system, to render the individual tuberculous. Normally, the accidental inhalation of air laden with dust and bacilli does not render the healthy individual tuberculous; neither does the occasional ingestion of a few bacilli with the food or milk. The ciliated epithelial lining of the upper respiratory tract is a physical hindrance to the entrance of bacilli. The nasal mucus in health is bactericidal, and the act of sneezing, when caused by the inhalation of dust particles, I have no doubt is also an effective physical means of getting rid of any microorganisms lodged in the nasal cavities. The gastric secretions are, in a measure, also bactericidal, and with these, in combination with the phagocytic power of the blood in its normal condition, we have enough means of defense to throw off any number of pathogenic microbes. But anything diminishing the physiological powers just enumerated must be considered an indirect ætiological factor in the production of tuberculosis.

I use the term *physiological poverty*, which seems to me to best convey the idea of a condition enabling pathogenic microorganisms, particularly the bacilli of tuberculosis, to invade our system. This physiological poverty, or predisposition to disease, may be inherited or acquired.

An hereditary predisposition to consumption is, alas! not always recognized so early as would be desirable, in view of the value of timely and persistent treatment. I have described this condition in previous writings, but it may not be amiss to repeat the description in connection with our present subject. If the predisposed person is a child, he will either be undersized or present an almost abnormal height for his age, with a narrow chest. He will be a bad eater, irritable, nervous, anæmic, with irregular digestive functions, at times constipated, at times suffering from diarrhœa, prone to all the diseases of childhood, and, still, mentally rarely behind his more robust companions. He is averse to outdoor play, and, owing to his delicate constitution, he is allowed to have his way, and his character is often spoiled.

The adult candidate for pulmonary tuberculosis differs from his younger brother but little; the physique is the same; the peculiar condition of mind is more pronounced; while he is sanguine at times, anxieties, disappointments, especially unfortunate love affairs and similar sorrows, often suffice to bring about a rapid development of the disease. In sorrow one eats but little, the arterial pressure is low and the muscular weakness and depressed nervous state make the act of breathing incomplete.

A disposition to tuberculosis may be acquired, first, by privation of sufficient and nutritious food, air, and light; secondly, by phthisiogenic diseases, such as pneumonia, pleurisy *a frigore*, severe grippe, variola, scarlatina, typhoid fever, and other eruptive diseases; thirdly, by extreme worry and mental anxieties; fourthly, by grave traumatism or severe shock; fifthly, by syphilis and severe gonorrhœas; and last, but not least, by alcoholism and excesses of other kinds.

Whether the predisposition is acquired from one of these causes or is hereditary, the treatment must be the same, that is to say, preventive and curative. I shall not speak of therapeutics in particular; but, speaking in general, I may be permitted to state that my faith lies in the prophylactic, dietetic, and symptomatic treatment, under the best possible hygienic conditions, in a special institution or at home, but always under constant medical supervision.

The course and termination of the disease, of which I am to speak as well, depends upon a multitude of conditions. Do not consider me a utilitarian if I say that much depends upon the money bag of the invalid. If a patient is poor, as individual physicians, I know every

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*Lindemann, *Deutsche med. Wochenschrift*, 1883, No. 30.

†Jacobi, in Knopf's *Pulmonary Tuberculosis; its Modern Prophylaxis and the Treatment in Special Institutions and at Home*, P. Blakiston's Son & Co., Philadelphia, 1899.

one of us would be willing to treat him gratuitously, and even supply him with the necessary medicines; but what he needs most—plenty of fresh air, the best of food, good hygienic environments, no care and anxieties—it is difficult for us to provide for him. Yet, you know that without them our skill and our medicines will do him no good, and the course of his disease will be interwoven with untold sufferings and privations. I do not know of a sadder fate than that of a consumptive without means and perhaps with a wife and children depending upon him for support.

That the establishment of a number of institutions for the care of the consumptive poor will alone be able to lessen these sufferings and reduce the centres of infection created by the consumptives living in the tenement homes, must be evident to everybody.

Tuberculosis is eminently a curable disease. The tubercle, instead of being a miserable neoplasm, incapable of organization, has a natural tendency to fibrous formation. Thus, the course of the disease will be favorable so long as we can create by an abundance of good air and good food enough new fibrous connective tissue, and increase the phagocytic power of the blood and the various secretions. So long as the stomach holds out, there is hope for the patient. To make it hold out long, to make it do good work, to help assimilation, is the task of modern phthisiotherapy, and upon its success depends the course of the disease.

At times, the course of pulmonary tuberculosis is associated with a good deal of suffering, not only of body but also of mind. For the physical suffering, judicious symptomatic treatment, in the hands of a skillful physician, will give the patient much relief. To treat the psychical phenomena so peculiar to many consumptives, amounting with some to intense mental suffering, will require all the forbearance, tact, and firmness, of the cultured and devoted physician. The course of the disease in the cheerful and obedient patient is likely to be more hopeful than in the morose and disobedient invalid. Whether the patient has contracted tuberculosis because of an acquired or hereditary disposition, I think, makes little difference in the course or prognosis of the disease. The prognosis of pulmonary tuberculosis depends as much upon the individual as upon the disease itself.

The termination of pulmonary tuberculosis is unique and differs from that of any other disease. If it proves fatal, death may be the result of an extreme emaciation and a gradual failing. At times a severe hæmorrhage causes a relatively sudden death; so may asphyxiation due to the diminished respiratory area. But I believe that in the majority of cases, when a tuberculous patient dies, it is the result of the association of other pathogenic microorganisms with the bacillus of tuberculosis, or, in other words, a mixed infection—an intense toxæmia. The termination for which we all hope and labor is, of course, cure—reestablishment of health.

As to the degrees of cure, opinions differ widely. Some authors speak of an absolute cure and of a relative cure; some of arrested cases and improved cases; some do not at all believe in the possibility of cure in the *ad integrum* sense. Myself, I am optimistic enough to firmly believe in the absolute curability of pulmonary tuberculosis. As to the prevention of tuberculosis, I go still further in my optimism, for I think, with the immortal Pasteur, "it is in the power of man to cause all parasitic diseases to disappear from the world," and tuberculosis is a parasitic disease *par excellence.*

Even with our present knowledge of the ætiology of pulmonary tuberculosis, limited as it is, I believe the time is not far distant when the prevention of tuberculosis will be a popular science, understood by everybody. When our statesmen and city fathers come to realize that by providing comfortable and sanitary homes for the poor and plenty of public parks, gardens, and playgrounds, they will not only diminish the frequency of tuberculosis, but improve the sanitary and moral conditions of the laboring classes in general, a large step toward the prevention of tuberculosis will have been accomplished. When our philanthropists, anxious to help their suffering fellow-men, give us all the money needed to treat the consumptive poor in sanatoria and special hospitals, we may be able to modify for the better the course and termination of the disease in the majority of sufferers, who are the poor.

From time immemorial physicians as a class have labored to become masters of the disease. There is now hardly ever an important session of medical men in which the difficult problem of tuberculosis is not discussed. It does the American Electrotherapeutic Association great honor to have a "symposium" on Tuberculosis placed on its programme for this year's session. With all my heart I wish that the wisdom and experience of its members in the therapeutic application of electricity may help us to better the course and termination of this terrible disease.

16 West Ninety-fifth Street.

A RÉSUMÉ OF SOME PAPERS PRESENTED TO THE THIRTEENTH INTERNATIONAL CONGRESS OF THE MEDICAL SCIENCES.

(*Continued from page 593.*)

The following papers are abstracted from the *Comptes rendus* furnished by the *Agence centrale de la presse scientifique internationale.*

Section of Psychiatry.

The Psychoses of Puberty.—Dr. Jules Voisin, of the Salpêtrière, after discussing the history of puberty considered as a cause of insanity, said that most authors agreed that the psychoses which developed during puberty got well without leaving any trace behind them, and that there was a form of dementia which exactly resembled progressive general paralysis in the adult save by the absence of ambitious delirium. We must, therefore, admit several forms of the psychoses of puberty, and that pubertal development was not the only cause. Other elements besides reflex cerebral excitation and glandular secretion were causative factors. Puberty was characterized, not only by sexual maturity, but by development of body and mind, and by the birth of new sentiments related to that maturity. The period, extending from twelve or fourteen years of age up to twenty-two, comprised various physiological acts which might be checked, disturbed, or perverted in development, by an infirmity of causes either physical or pathological. When the subject was predisposed, these causes were all the more powerful. Dysmenorrhœa by undermining the nervous system; menorrhagia by depressing it; too rapid growth; inadequate nutrition either in quality or quantity; too prolonged or unsuitable work, physical or mental; infectious disease; a physical or emotional shock—these played determining rôles in most instances. These causes were more responsible for serious dementia than the appearance of puberty, which in most young girls caused no mental disturbance, but passed unnoticed. Mental disturbance, if it did occur, did not usually last long, and only appeared in those hereditarily predisposed. A prepared soil was necessary, but the indispensable factor was heredity, and puberty and debilitating diseases played only secondary parts. The combination of symptoms presented by pubertal psychoses was further evidence of the importance of heredity; alternations of excitement and depression, the periodic character of the symptoms, and their paroxysmal nature. The psychoses were variable, being sometimes pure psychoses, sometimes displaying characters of degeneration, at other times those of a neuropsychosis or of a toxic delirium.

Dr. Voisin offered for acceptance the following classification:

A—Pure psychoses of puberty:
  (*a*) Melancholia (simple passive melancholia; active melancholia with excitement, melancholia with stupor, catatonia);
  (*b*) mania (simple mania, typical form, rare in adolescence; irritable mania, simple choreic mania with hallucinations; catatonic form);
  (*c*) mental confusion;
  (*d*) hallucinatory insanity.
B—Regressive states:
  (*a*) dementia of puberty; hebephrenia, acute or primary dementia; acute stupor;
  (*b*) early simple dementia;
  (*c*) progressive general paralysis;
  (*d*) epileptic spasmodic dementia (see epilepsy).
C—Mental degeneration:
  (*a*) paranoia;
  (*b*) periodic insanity;
    1. intermittent and
    2. circular or double form;
  (*c*) phobias, obsessions, insanity of doubt and of touch;
  (*d*) kleptomania, dipsomania;
  (*e*) sexual aberrations;
  (*f*) impulses; suicide; homicide;
  (*g*) moral insanity;
  (*h*) delirium of degeneration.
D—Combined psychoses:
  (*a*) neurasthenia;
  (*b*) hypochondriasis;
  (*c*) hysteria;
  (*d*) chorea;
  (*e*) epilepsy;
    1. chronic psychosis, spasmodic dementia;
    2. acute psychosis.
E—Psychoses from intoxication:
  (*a*) infectious self-intoxication;
  (*b*) alcoholic intoxication.

Dr. Voisin's conclusions were as follows: 1. By psychoses of puberty we are to understand mental conditions appearing during the age of puberty, viz., from twelve or fourteen to twenty-two years of age. This epoch is characterized by sexual maturity and the physical and intellectual evolution of the individual. 2. Any known variety of psychosis may appear at this time. Hebephrenia is not a morbid entity, and the term should be confined to cases of dementia. Psychoses developing at the beginning of puberty are less grave than those appearing later or toward the end of puberty. The former are the psychoses of puberty; the latter, those of adolesence. 3. Heredity is the predominant causative factor. The combination of incomplete development of the intellect with hereditary predisposition is what gives it the hebephrenic stamp. 4. Pure psychoses, or those approximating thereto, present anomalous mixed forms which in most instances are recovered from. 5. Melancholia most frequently appears under the serious aspect of stupor, and is associated with impulsive acts, obsessions, and imperative hallucinations directed against the patient's life and that of others. Mysticism and onanism are also frequent. 6. Mania is rarely present in a benign form. It most commonly takes the shape of folly, and also presents impulsive elements. 7. Kahlbaum and Hecker's "hebephrenia" appears in a slight and in a grave form. The latter may present symptoms of stupor dementia, catatonia and mental confusion, which fact makes its diagnosis difficult. The slight form, or early simple dementia, which, according to Morel, is a stigma of degeneration, has to be diagnosticated from progressive general paralysis and from the spasmodic dementia of epilepsy. 8. Mental confusion is the result of a delirium of dreams having an analogy with those of alcoholic delirium. This dream delirium is the characteristic of the psychoses of self-intoxication, and it is highly probable that nutritional disorders are its cause. Recovery occurs in about fifty per cent. It is generally ushered in by crises, sweatings, boils, abscesses, etc., and amnesia is commonly observed, as in polyneuritic psychoses. 9. Progressive paralysis in the young is distinguishable from that in the adult by the absence of grandiose ideas and ambitious delirium, and by its more tardy course. It is supposed by many to be due to hereditary syphilis. 10. Degenerative and nerve psychoses are the most common. They usually recur in adult life. 11. From the view point of medical jurisprudence, psychoses of puberty are subjected to the same laws as those of adult life, save as regards civil capacity, for the French law recognizes no civil capacity until the age of twenty-one. Criminal responsibility, however, begins at sixteen years of age, and must consequently be taken into account.

The Psychoses of Puberty.—Professor Marro, of Turin, said that as a result of his researches, he had arrived at the following conclusions: 1. Puberty exercises a noteworthy influence on the mental life, which evidences itself either by conferring upon persistent mental troubles characters which they did not formerly possess, or possessed only in a lesser degree, or by opening the road to the advent of psychoses. 2. One of the psychoses in particular, which attacked boys and girls at puberty—the hebephrenia of Hecker—may be regarded as specific, since several characteristics which it shares with other psychoses are combined in it. 3. The morbid manifestations of this species of psychosis and the changes disclosed on autopsy show that the cerebral cortex and the meninges are affected by a morbid anatomic process. The symptoms accompanying its onset seem to show that its origin probably lies in self-intoxication arising from digestive disorders. 4. From the time of puberty and the precocious or unnatural exercise of the genital functions other morbid phenomena arise. These impress upon the individual's character a peculiar stamp, and one which is permanent, even though age and favorable conditions of life may suppress the evidence of it. 5. The prevention of psychic disorders demands that the utmost care be employed to avoid all debilitating causes such as may hinder the mental or bodily development at this critical time, for instance, over-fatigue, either intellectual or physical, and especially all premature or unnatural sexual indulgence.

The Psychoses of Puberty.—M. Ziehen, of Jena, said that in reviewing nearly four hundred cases of mental disease, the first symptoms of which had dated back to puberty, that was to say, to the age of from thirteen to twenty-one, he had arrived at the following conclusions: 1. Morbid mentality attains one of its maxima at the time of puberty. An hereditary taint determines at puberty a somewhat greater morbid tendency. Apart from any hereditary taint, anæmia, bodily and mental overstrain, acute infectious diseases and sexual excesses, play an important part in the ætiology of the psychoses of puberty. 2. Nearly all known psychoses are met with at puberty. The special influence of puberty is shown only in the fact that certain psychoses prevail at that time, and that often —though not always—the psychoses undergo certain special modifications in their symptoms and in the course of the disease. It is, therefore, erroneous to speak, as some authors have done, of a special psychosis of puberty to include the majority of cases of mental trouble common at that time. The sole "psychosis of puberty," which belongs almost exclusively to it (the hebephrenic dementia, or hebephrenia, of Kahlbaum), furnishes only a relatively small number of cases to the sum total of psychoses occurring at puberty. 3. The prevailing psychoses at puberty are, apart from hebephrenia, the following: Circular insanity, mania, melancholia, acute hallucinatory paranoia (the amentia of some authors), and insanity of hysterical or epileptoid origin. 4. The most important modifications that puberty produces are the following: Exaggerated debility of affective troubles ("affective dissociation"); a discrepancy between these troubles and imitative reactions ("hebephrenic paramimia"); a certain incoherence, not only of the ideas of delirium, but even of normal thoughts, and on the other hand a tendency to stereotyped forms of mimicry, speech, etc.; illogical, trivial, and fantastic character of the ideas of delirium; and, finally, the tendency either to a circular course or to a progressive dementia. 5. The prognosis of psychoses at puberty is in general, in consequence of the modifications before mentioned, worse than the prognosis of post-pubertal psychoses. 6. The treatment of the psychoses of puberty does not differ in general from the treatment of post-pubertal psychoses, save that complete confinement to bed is only admissible where there is pronounced exhaustion. A regular occupation, also, both bodily and mental, regulated for each hour of the day, is of special importance in the greater part of the cases. The employment of narcotics should be as limited as possible. Great precautions are necessary in selecting adult patients to be placed in the same room with those at the period of puberty.

Section of Obstetrics.

The Causes of Puerperal Infection.—M. G. P. Coromilas, of Athens, said that Laveran's parasite played a certain rôle in the affections of pregnant women, and could develop a paludal puerperal infection. In such cases, intra-uterine injections, or even vaginal injections, were contra-indicated. To avoid the development of puerperal infection due to other causes, he recommended the anointing of the external genitalia and of the vagina with a weak ointment of resorcin and corrosive sublimate, 10 of the former and 1 of the latter, in 3,000 parts of vaseline. As an effective prophylactic measure against puerperal infection, he used sulphate of quinine, from 3¾ to 5½ grains, combined with opium 30-100ths to 45-100ths of a grain, administered daily some minutes before dinner, during the last fortnight of pregnancy.

Section of Surgery.

Umbilical Hernia and Enteroptosis: Correlation of Cause and Effect.—Dr. Zabé, of Paris, said that, contrary to the universally received opinion, umbilical hernia was as frequent in the adult as in the young. The hernias contained usually a part of the greater omentum and a segment of the colon (Littré and Charles Robin). The greater part had undergone retrogression and were but slightly apparent. Professor Tillaux, of Paris, in his treatise on topographical anatomy, had established the fact that the greater omentum was constantly found in umbilical hernia, and that it always contracted adhesions with the umbilical ring. This great serous fold being fixed above, on one side to the stomach, on the other to the transverse colon, an omental bridle was found, the gastro-coli-umbilical, which impeded the movements of the stomach and lowered the arch of the colon. Eventually the stomach tended to become vertical and the prolapsed portion of the intestine became stenosed. This was the reason that so many subjects of umbilical hernia were at the same time dyspeptic and enteroptosic. The correlation of cause and effect between umbilical hernia and Glénard's disease was well supported by evidence, resting upon a solid anatomo-pathological basis. Studied from an anatomo-mechanical point of view, the abdominal cavity could be exactly compared, when the subject was lying on his back, to a room of which the arched ceiling would be constituted by the antero-lateral wall. The umbilical ring played the part of keystone of the arch. This fibrous ring, truly the skeleton of the region, was the static centre which assured the synergism of the muscular contractions and permitted to the enclosed viscera all possible variations of movement and volume without the breaking of equilibrium. From the time of formation of an exomphalic sac, the fibres which kept the great serous sac fixed solely to the circumference of the ring, having been broken in a certain extent of their circuit, the base point indispensable to the functioning of organs so mobile as the stomach and intestine, no longer offered a sufficient resistance. Then ensued a rupture of equilibrium which was expressed after a meal by a distressing sensation of weight. It seemed as though the belly, insufficiently supported, would fall in. The cure of hernial dyspepsia, and of the consecutive enteroptosis, was insured whenever the causative exomphalos was an entero-epiplocele. A conical plug should be made to penetrate the tear in the ring in such a way as to push back the herniated portion of intestine, and to break, if possible, the mesenteric adhesions. This plug should be put in the centre of a pad kept applied to the umbilical region by means of a waist bandage after the fashion of Glénard. If the adhesions were intractable, extending to the neighboring organs and constituting the "adherent perigastritis" of Landerer, surgical intervention was necessary, and it was usually crowned with success.

Therapeutical Notes.

Lactic Acid in Infantile Diarrhœa.—According to *Gazzetta medica lombarda* for August 26th, Thiercelin uses lactic acid in daily doses of thirty grains in children less than one year old, and forty-five grains in those of from one to two years of age. He gives every two hours a teaspoonful of the following solution:

℞ Lactic acid. . . . . .from 30 to 45 grains;
Syrup of quinces. . . . . 7½ drachms;
Distilled water. . . . . 31¼ "
M.

For Facial Erysipelas.—Desesquelle (*Gazzetta degli ospedali e delle cliniche,* September 4th) in a recent communication to the Therapeutical Society of Paris recommended:

℞ Crystallized synthetic guaiacol. . . 15 grains;
Menthol. . . . . 15 "
Camphorated oil. . . . . .480 minims.
M.

The affected area to be painted with this mixture every two hours.

The Treatment of Hysteria.—Dr. R. S. Carroll (*Medical Mirror,* September) gives the following epitome of a successful plan of treatment for the hysterical condition, which must be modified, of course, to suit the individual case: Moral and hygienic influence; if possible, the daily cold shower; daily hypodermics of nitrate of strychnine, and the administration of a mixture similar to the following:

℞ Fluid extract of cascara sagrada. . 1 ounce;
Fluid extract of opium graveolensis. . . . . .2 to 4 ounces;
Tincture of nux vomica. . . . . 6 drachms;
Tincture of assafœtida. . . . . 8 ounces.

Direction: One-half to one teaspoonful in a little water before each meal. This mixture combines the stomachic and cathartic properties of the cascara, the nerve tonics, celery, and nux, with the antispasmodic properties of assafœtida.

Nitrate of Silver in Intestinal Tuberculosis.—The *Klinisch-therapeutische Wochenschrift* for September 9th says that Petit attributes a twofold usefulness to silver nitrate in the intestinal tuberculosis of children—it disinfects the intestine and promotes the healing of the tuberculous ulcers. To a child between five and ten years of age he gives one of the following pills daily for three successive days, the rectum having first been emptied, preferably by means of a salt-and-water enema:

℞ Silver nitrate. . . . . 0.15 of a grain;
Starch,
Powdered licorice, } each. . . . 0.30 of a grain.
M.
For one pill.

If on the third day the diarrhœa has not ceased, two or three of the pills are given daily for two days.

For children under five years of age, who cannot swallow pills, the nitrate may be given in solution or administered as an enema. He gives the following formula:

℞ Silver nitrate. . . . . 0.15 of a grain;
Distilled water,
Raspberry syrup, } each. . . . . 2½ ounces.
M.

To a child six months old a coffeespoonful may be given twice a day; to an older child, the entire solution in the course of an hour. This treatment, he says, is absolutely harmless. If the evacuations are bloody, from 0.15 of a grain to a grain and a half of the nitrate, according to the child's age, may be given, dissolved in six ounces of water.

Picric Acid in the Treatment of Phagedæna.—Hawthorn (*Marseille médicale,* March 15th; *Journal de médecine de Paris,* August 12th) relates twelve cases of subjects of phagedæna treated with picric acid in saturated solution. The effects noted were: A marked weakening of purulence, cleansing of the wound, the beginning of cicatrization at the end of four or five days, and general arrest of the disease. The applications are almost painless.

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THE COORDINATE URBAN AND RURAL CARE OF CONSUMPTIVES.

THE views of an ardent, intelligent, and philanthropic student of the problem of how to deal with the consumptive poor are always deserving of the closest attention. We know of nobody who at the present time more thoroughly merits to be so called than Dr. Knopf, whose writings on various aspects of the theme are known all over the civilized world. In a letter to the editor of the *New York Times,* taking for his text the proposed endowment by a generous woman, Mrs. Caroline Hoagland, of a new general dispensary, Dr. Knopf sets forth the great need of further facilities than we now possess for the proper treatment of consumptives and the cure and restriction of the disease. The capacity of the Seton Hospital for Consumptives is great, and its management is in the best of hands. Of course Dr. Knopf is aware of these facts, and we can only presume that he has, nevertheless, come to the conclusion that a still greater institution or possibly one more centrally situated is what is needed. Apparently he would devote the city consumptives' hospital to the segregation of those who are so far gone with the disease that there is little hope of their cure, and to the palliation of their sufferings—a place where, while all necessary precautions could be taken against their disseminating tuberculous infection, they would not feel shut out from the rest of the world, and where their friends might visit them frequently without burdensome loss of time. Such a hospital would undoubtedly prove a boon to city consumptives, and we hesitate to believe that it should be maintained solely for the benefit of the tenement-house class; we think it should be open to the people in general.

As for the management of persons in the early stage of consumption, whose cure may be reasonably expected if they are properly treated, it is undeniable that their departure from the city is not an absolute necessity; still, their removal to a more salubrious abode in a mountainous region well wooded with pine—preferably, so far as New York is concerned, the Adirondack forest—would add so immensely to the probability of their restoration to health that we do not see on what ground there can be any considerable opposition to the establishment of one or more such sanitaria. These, too, we would not have devoted solely to the needs of the wretchedly poor; if we are to succeed in the task of cutting down the prevalence of tuberculous disease, we must work not only among the tenement-house people, but also among those who, although able to live comfortably when in health, are unable to lead an idle life or travel to distant resorts without assistance which would be virtually pecuniary. Both in towns and in the rural regions must the struggle against the disease be carried on unceasingly, and the urban and country hospitals urged by Dr. Knopf must be regarded, it seems to us, as actual necessities.

MEDICAL PROTECTIVE UNIONS.

DEFENSIVE organizations of physicians have been formed in various parts of the country within the last few years, but we are not aware that they have accomplished much. On September 6th the Medical Defense Association of Minnesota was incorporated for a term of thirty years. According to the *Minneapolis Tribune,* its articles set forth its purposes as follows: To establish a medical association to support and protect the character and interests of medical practitioners in the State, to promote professional learning and honorable practice, and to aid in the defense of all actions at law involving questions of professional principle and the competence and integrity of its members. These purposes are thoroughly commendable, and it is to be expected that the association will accomplish much good.

An organization of a decidedly different character, bordering on trade unionism if not identical with it, has recently been formed in Detroit. It seems to be known under two different names, that of the Physicians' Business Association and that of the Detroit Physicians' and Surgeons' Union No. 1. One of the Detroit newspapers, the *Sunday News-Tribune,* is inclined to take a humorous view of the movement. It declares that the chief object of the union concerns "wages," precisely as in the miners' union, though there are other objects also in view. "If an employer refuses to pay his doctor," the paper continues, "or insists on compensating him with wages below the union scale, the doctor will strike, just as the miners have struck—that is, he will refuse to treat him any more—refuse to work for him. All other union doctors must likewise strike and refuse treatment to the employer who refuses honest pay for honest service." A proposition to boycott physicians who declined to join the organization occasioned some violent talk, but there was a decisive vote in favor of a section of the tentative constitution which went so far as to provide that the members should refuse to recognize the boycotted physicians, either personally or professionally, although there was at first some objection to so radical a measure.

The *News-Tribune* points out that an essential feature of trade unionism has been overlooked in this organization, namely, the restriction as to the number of "apprentices," under which term it classes the students in the three medical schools of Detroit, the school of Ann Arbor, that of Saginaw, that of Battle Creek, and that of Grand Rapids. "Apprentice doctors," it says, "are being turned out into the world at a rate that terrifies the layman and threatens doctors already in practice with inundation and financial embarrassment under the operation of the law of supply and demand." It says that the experiment of "a doctoring union" will be watched with interest, but with no confident belief that it will last very long or that it will prove very successful while it does last. We must say that we have misgivings as to such an organization, though much depends upon the quality of its membership. It will be humiliating, we think, if the practice of medicine comes to be governed by union methods, but, like the *News-Tribune*, we shall watch the Detroit experiment with interest.

THE VALUE OF PHYSIOGNOMY IN THE DIAGNOSIS OF DISEASE IN INFANCY AND CHILDHOOD.

WITH the introduction of the numerous instruments of precision which the clinician has at his disposal at the present day, and with the advent of exact microscopical, chemical, and electrical tests, it is becoming less and less necessary to rely upon the educated senses for the diagnosis of disease. No one who is conversant with the aims and achievements of modern medicine will for a moment doubt the utility of all means of refinement in diagnosis, but when reliance upon the more elaborate methods results in neglect of the powers of observation and in failure to train the senses for the purposes of diagnosis, the faculty which our forefathers so assiduously cultivated, that of analyzing the external evidences of disease, bids fair, in the natural course of evolution, to become one of the lost arts.

Although physiognomical diagnosis should never take the place of the more precise methods of determining morbid states, it is always a useful adjunct to the other means, especially in diseases of infancy and childhood. "Under normal conditions," says John Thomson, in his work on the diseases of children, "the child's face is comparatively free from those lines and furrows which are regarded in adults as denoting character, and consequently it is the more easy to read when it bears the imprint of disease. Some of the changes which disease produces in their physiognomy are indeed so definite and constant that they may almost rank among the physical signs."

The special value of physiognomical diagnosis in children lies in the facts that it is a means of materially shortening the physical examination proper, and that it will thus spare the little patient the excitement, and in some cases the exhaustion, produced by a prolonged examination. The facies of children serves as a very accurate index to their general condition, and in many diseases the physiognomy is so characteristic that our attention is at once attracted to the presence of one or another morbid state. Cholera infantum, athrepsia, cretinism, meningitis, eyestrain, chorea, empyema, adenoids, nephritis, and congenital syphilis may be cited as examples of this kind.

In view of the recognized usefulness of reading the facial changes, the gestures, and the attitudes of sick children, it is astonishing that so little attention is paid by many modern writers on pædiatrics to facial and postural characteristics of disease in infancy and childhood. A systematic study of the subject at the bedside, together with a record and an analysis of what has been worked out in this field by the great clinicians of all ages, beginning with that master of physiognomic diagnosis, Hippocrates, would make rich material for a monograph.

It is true that some French writers have done much in this direction, and particularly Jadelot, whose *labial line,* supposed to indicate pulmonary disease, whose *nasal line,* indicative of abdominal disease, and whose *oculozygomatic line,* the accompaniment of cerebrospinal disease, certainly seem deserving of more recognition than they have heretofore received.

THE COURT LIMITS THE POWER TO REVOKE MEDICAL LICENSES.

AN important decision has been handed down by the Appellate Court of the State of Illinois in the case of the State against Dr. William F. Ross. The effect of this is practically to deny to the State Board of Health the right to discipline or revoke the certificates of physicians registered prior to July 1, 1899, on which date the present law went into effect. Should this decision stand, it will be very difficult indeed for the board of health to suppress illegal practice, and for this reason the case is to be carried into the Supreme Court by the State board's attorney. However desirable it may be to have this decision of the Appellate Court reversed, it seems not at all probable that this will be done, for the decision appears to be based upon a well-recognized principle which, if really at issue in the case, will undoubtedly be upheld, namely, that retroactive legislation is never permissible. There is some question, apparently, as to whether this principle is violated in this particular case, and it is to be hoped for the good of legitimate medicine that the Supreme Court will see its way to reverse the decision.

APATHY TO THE DEMANDS OF COMMON HUMANITY.

THE *Lancet* for September 22d very properly comments severely on the facts disclosed at an inquest at Market Drayton in England. A passerby on a public roadway saw the body of a man lying head downward in a pit sunk by the wayside and full of water, and without making any effort to lift the man out, contented himself with reporting the matter to the police on his arrival at his destination. There are many causes tending to induce this reluctance to intervene in the case of an apparently dead person. First, there is popular superstitiousness which makes many afraid to handle a corpse; then, there is the police regulation which requires as little interference with the conditions in which a body is found as possible, lest any clue to the unravelling of a possible crime should be thereby obliterated. Again, there is some possible risk to the person intervening of being locked up on suspicion and possibly charged with the crime. Still, there is a reasonable limit to caution, and it is monstrous to think that a person's life might be lost in the presence of easy possible aid for fear of such considerations. Moments come to all of us when we have to voluntarily assume serious responsibilities for action, and the exercise of proper caution should not run to the extreme of moral cowardice.

THE ALLEGED APOTHEOSIS OF THE PATHOLOGIST.

THE remarks of Mr. Edmund Owen in his recent address to the Canadian Medical Association, anent the relation of the pathologist and morbid histologist to modern medicine, have attracted considerable notice. The *Lancet* for September 15th has a very appreciative editorial, taking for its text the following *obiter dictum* of Mr. Owen's: "It is a good thing for a surgeon now and then to get away from pathologists and morbid histologists. In recent years there has been, perhaps, rather too much inclination to apotheosize the morbid anatomist, who, standing high in his suit of sable, looks upon the clinical surgeon as if his chief duty were to supply him with material." Letters in the correspondence column of that journal appear to take issue with Mr. Owen, considering that pathologists do not hold that important position which is their due. On the whole, the point in contention reminds us of the great question as to which comes first, the chicken or the egg.

THE OVERLYING OF INFANTS.

WE learn from the *Lancet* for September 15th that a woman has been committed for trial at the Central Criminal Court in London for causing the death of her infant by overlying it. At first sight this may seem unjust; but, when it is shown that the woman had already killed two previous infants by overlying on them, it must be granted that there are good grounds for suspicion of criminal intent. The practice of taking young infants to sleep in the same bed with grown people is injurious on all counts; and the ease with which such a practice can be used as a means of infanticide renders it all the more to be discountenanced. Still, it would not be feasible to make a law forbidding it, for among the poorest classes there are many cases in which it is the only available measure, more's the pity; and, even if it were made illegal, the law could not be enforced generally, for the offense would hardly ever be known, save when some catastrophe happened, in which latter case it would in any event be a subject for judicial inquiry. The most that can be done is to make every case of overlying, the matter for a most searching investigation, coupled with a severe official censure of the practice, even when the accident is shown to be clearly unintentional.

THE PROPOSED AMALGAMATION OF BALTIMORE SOCIETIES.

IT is said that at the approaching meeting of the Medical and Chirurgical Faculty the scheme of amalgamating the medical societies of Baltimore will be considered, but that it cannot be acted upon at that meeting. The conjoint body would, we suppose, resemble the New York Academy of Medicine with its sections, an organization which has proved of vast benefit to the New York profession.

THE NOISE NUISANCE.

NOW that the approach of a presidential election is having the effect of bringing out the noisy propensities of a certain element of the population, we may expect that it is an opportune time for the organization that was effected some months ago for the purpose of suppressing preventable street noises to do something. Let them suppress the person or persons by whom, somewhere in the neighborhood of Madison Square, night is made hideous with some new din-producing contrivance.

ITEMS.

Infectious Diseases in New York.—We are indebted to the Sanitary Bureau of the Health Department for the following statement of cases and deaths reported for the two weeks ending October 6, 1900:

Diseases.	Week end'g Sept. 29		Week end'g Oct.	
	Cases.	Deaths.	Cases.	Deaths.
Typhoid fever	129	20	104	15
Scarlet fever	70	2	87	2
Cerebro-spinal meningitis	0	5	0	6
Measles	17	2	30	4
Diphtheria	170	23	210	19
Laryngeal diphtheria (croup)	9	2	6	2
Tuberculosis	294	128	261	152

Marine-Hospital Service Health Reports.—The following cases of small-pox, yellow fever, cholera, and plague were reported to the surgeon-general during the week ending October 6, 1900:

Small-pox—United States.

Garfield County, Colorado	Sept. 18-24	1 case.	
Larimer County, Colorado	Sept. 18-24	reported.	
Las Animas County, Colorado	Sept. 18-24	2 cases.	
Pueblo, Colorado	Sept. 18-24	11 ”	
Wichita, Kansas	Sept. 22-29	1 case.	
New Orleans, Louisiana	Sept. 22-29	1 ”	1 death.
Cleveland, Ohio	Sept. 22-29	6 cases.	
Portland, Oregon	Sept. 5	3 ”	
Salt Lake City, Utah	Sept. 22-29	3 ”	
Tacoma, Washington	Sept. 22-29	1 case.	

Small-pox—Foreign.

Ghent, Belgium	Sept. 1-15		2 deaths.
Cairo, Egypt	Aug. 26—Sept. 2		2 ”
Liverpool, England	Sept. 8-15	1 ”	1 death.
London, England	Sept. 1-15	6 cases.	
Paris, France	Sept. 8-15		12 deaths.
Calcutta, India	Aug. 25—Sept. 1		5 ”
Karachi, India	Aug. 26—Sept. 2	2 ”	1 death.
Madras, India	Aug. 20-31		3 deaths.
Formosa, Japan	July 1-31	3 ”	
City of Mexico, Mexico	Sept. 2-16	13 ”	7 ”
Guimeras, Philippines	Aug. 20		20 ”
Moscow, Russia	Sept. 2-9	2 ”	
Odessa, Russia	Sept. 8-15	6 ”	3 ”
St. Petersburg, Russia	Sept. 1-8	22 ”	12 ”
Vladivostock, Russia	May 1—July 31	3 ”	
Warsaw, Russia	Sept. 1-8		9 ”
Glasgow, Scotland	Sept. 8-22	26 ”	1 death.

Yellow Fever.

Barranquilla, Colombia	Sept. 8-16		1 death.
Cartagena, Colombia	Aug. 31—Sept. 14	3 ”	3 deaths.
Havana, Cuba	Sept. 15-22		9 ”

Cholera.

Bombay, India	Aug. 28—Sept. 4		177 ”
Calcutta, India	Aug. 25—Sept. 1		4 ”
Karachi, India	Aug. 26—Sept. 2	11 ”	10 ”
Madras, India	Aug. 25-31		44 ”
Fukuoka Ken, Japan	Aug. 28	40 ”	
Osaka and Hiogo, Japan	Aug. 18-25	1 case.	
Singapore, Straits Settlements	July 28—Aug. 4		1 death.

Plague—Foreign and Insular.

Rio de Janeiro, Brazil	Aug. 1-31	90 cases.	46 deaths.
Alexandria, Egypt	Aug. 20-27	2 ”	2 ”
Bombay, India	Aug. 28—Sept. 4		57 ”
Calcutta, India	Aug. 25—Sept. 1		56 ”
Formosa, Taihoku Ken, Japan	July 31—Aug. 7	3 ”	4 ”
Cebu, Philippines	July 25	1 American boy.	
Manila, Philippines	July 28—Aug. 18	10 cases.	5 deaths.
Glasgow, Scotland	Sept. 18	7 ”	1 death.

Naval Intelligence.—*Official List of Changes in the Medical Corps of the United States Navy for the Week ending October 6, 1900:*

ARNOLD, W. F., Passed Assistant Surgeon. Ordered to the naval recruiting rendezvous, Chicago.

BLAKEMAN, R. S., Passed Assistant Surgeon. Detached from the naval training station, Newport, Rhode Island, and ordered to temporary duty on the *Pensacola*.

BURR, C. R., Assistant Surgeon. Detached from the Puget Sound Naval Station and ordered to proceed home to await orders for sea duty.

BYRNES, J. C., Surgeon. Detached from the *Massachusetts* and ordered to the New York Navy Yard.

DICKSON, S. H., Surgeon. Detached from the Washington Navy Yard and ordered to duty at the headquarters of the Marine Corps, Washington.

GREEN, E. H., Surgeon. Ordered to the *Alabama*, October 16th.

HERNDON, C. G., Surgeon. Detached from the Naval Museum of Hygiene, Washington, and ordered to duty at the Washington Navy Yard.

LEYS, J. F., Passed Assistant Surgeon. Ordered to the Naval Hospital, Newport, Rhode Island, for duty.

LIPPITT, T. M., Assistant Surgeon. Detached from the *Monocacy* and ordered to the Naval Hospital, Yokohama, Japan, for treatment.

MOORE, J. M., Passed Assistant Surgeon. Detached from the naval recruiting rendezvous, Chicago, and ordered home to await orders.

VON WEDEKIND, L. L., Passed Assistant Surgeon. Detached from the *Richmond* and ordered to the Puget Sound Naval Station.

WAGGENER, J. R., Medical Inspector. Detached from duty at the Naval Hospital, Yokohama, Japan, and ordered to duty in charge of the Naval Hospital, Cavite, Philippine Islands.

WRIGHT, B. L., Assistant Surgeon. Detached from the *Isla de Luzon* and ordered to the Naval Hospital, Cavite, Philippine Islands.

Marine-Hospital Service.—*Official List of the Changes of Station and Duties of Commissioned and Non-Commissioned Officers of the United States Marine-Hospital Service for the Seven Days ending October 4, 1900:*

STIMPSON, W. G., Passed Assistant Surgeon. Granted fifteen days' extension of leave of absence.

CORPUT, G. M., Assistant Surgeon. Relieved from duty at Mullet Key Detention Camp, and directed to proceed to St. Louis and report to the medical officer in command for duty and assignment to quarters.

HOBDY, W. C., Assistant Surgeon. Granted leave of absence for one month from October 3d.

HUNTER, S. B., Acting Assistant Surgeon. Granted leave of absence for seven days.

RODMAN, J. C., Acting Assistant Surgeon. Granted leave of absence for seven days.

RICHARDSON, S. W., Hospital Steward. Upon expiration of leave of absence, to rejoin station at St. Louis.

The Late Dr. John M. Brown.—Dr. George B. McAuliffe informs us that at a meeting of the medical board of the Metropolitan Dispensary and Hospital the following resolution was passed:

Inasmuch as by the death of Dr. John M. Brown the Metropolitan Dispensary and Hospital has sustained a loss which is poignantly felt and with difficulty retrieved, and, since, individually, we miss the rugged honesty, the incorruptible friendship which was constantly evidenced to us who knew him intimately; be it

Resolved, That this feeble expression of our esteem for his character and our appreciation of our loss be spread on the minutes, and a copy of this resolution be sent to his family and to the medical press.

The St. Louis Medical Society of Missouri.—At the last regular meeting, on Saturday evening, the 6th inst., Dr. L. Bremer read a paper entitled Cannabis Indica and Angelica Archangelica in the Treatment of Neuroses.

The Society of Medical Jurisprudence.—At the one hundred and fifty-second regular meeting, on Monday evening, the 8th inst., Dr. C. A. von Ramdohr read a paper entitled Child or Fœtus.

The Medical Association of the Greater City of New York.—At a stated meeting, on Monday evening, the 8th inst., the order for the evening was as follows: Hydrotherapy for Typhoid Fever in Private Practice, by Dr. S. Baruch; and Hypospadias and its Various Methods of Operation, by Dr. Carl Beck. Cases were presented and specimens were exhibited.

Changes of Address.—Dr. F. C. Anthes, to No. 125 East Eighty-third street, New York; Dr. John Alfred Bodine, to No. 128 East Thirty-fourth street, New York; Dr. John C. Gross, to No. 161 East Eighty-first street, New York; Dr. George L. Smith, to No. 226 West Seventy-ninth street, New York; Dr. A. Ross Thomson, to "The Kanawha," No. 2094 Fifth avenue, New York.

Erratum.—In our issue for October 6th, page 616, in the abstract of an article on Cod-liver Oil in Tuberculosis, from the *Presse médicale* for September 15th, for "the addition of 1.60 of a grain of strychnine," read "one-sixtieth of a grain." We regret, also, that on page 608 the right and left-hand columns became accidentally transposed.

Plague Quarantine in Colorado.—The Colorado Board of Health has raised the quarantine against Japanese and Chinese traveling from San Francisco and allows them to pass through the State on the railroads provided that they have through tickets with no stop-over privileges.

Laymen for Trustees of the Medico-chirurgical College.—Hon. Edward M. Paxson, formerly Chief Justice of the Supreme Court of Pennsylvania, has been elected president of the Medico-chirurgical College of Philadelphia, and it is intimated that this step is preliminary to the substitution of laymen for members of the faculty throughout on the board of trustees. The board consists of fifteen members, nine of whom have been elected by the members of the faculty from among its own membership, one being a representative of the alumni and the others laymen. It is reported that hereafter the members of the faculty will not act as members of the board of trustees, as their pædagogical duties are interfered with by the demands made upon them as trustees. The college now has between 600 and 700 students in the three departments, medical, dental and pharmaceutical.

The Recent Epidemic of Rabies formed the topic of discussion at a meeting of the Buffalo (N. Y.) Medical Union, which was held on October 5th. Health Commissioner Wende read a paper on the subject, which was discussed by Dr. W. C. Phelps, Dr. Frederick Preiss, Dr. S. G. Dorr, Dr. A. H. Briggs, Dr. S. S. Green, Dr. C. E. Congdon, Dr. J. C. Thompson, Dr. E. Wasdin, Dr. DeWitt C. Greene, Dr. R. L. Banta, Dr. F. B. Dorr, Dr. George E. Fell, Dr. W. D. Greene, Dr. J. H. Potter, Dr. W. G. Bissell, Dr. H. D. Ingraham and Dr. J. Holmes.

Illegal Practitioners in Kansas City.—It is reported that of the 100 physicians who are practising medicine illegally in the State of Missouri about forty are residents of Kansas City.

The National Medical Society of Colored Physicians of America held its fourth annual convention at St. Louis on October 2d and 3d. Clinics were held at the Provident Hospital, the City Hospital, and at the People's Auxiliary Hospital, during the meeting of the association.

Physicians Nominated for Congress.—Dr. Alexander Stone, of St. Paul, Minn., president of the American Medical Editors' Association, has been nominated as a candidate for Congress by the Democratic party. Another Democratic nominee is Dr. Frank Wilson, of Brooklyn, who has been nominated to succeed himself.

Hospital Staff Changes.—Dr. I. Cohn, of Oakland, has been appointed third assistant physician to the Napa (Cal.) State Hospital for the Insane. Dr. W. A. Stoker has resigned the superintendency of the Southern Hospital for the Insane in Illinois in order to accept the post of superintendent at the Indiana Southern Hospital for the Insane at Evansville.

Society Meetings for the Coming Week:

MONDAY, *October 15th:* New York Academy of Medicine (Section in Ophthalmology and Otology); New York County Medical Association; Hartford, Connecticut, Medical Society; Chicago Medical Society.

TUESDAY, *October 16th:* New York Academy of Medicine (Section in General Medicine); Buffalo Academy of Medicine (Section in Pathology); Ogdensburgh, New York, Medical Association; Syracuse, New York, Academy of Medicine; Medical Societies of the Counties of Kings, St. Lawrence (semi-annual), and Westchester (White Plains), New York; Hunterdon, New Jersey, County Medical Society (Flemington); Baltimore Academy of Medicine.

WEDNESDAY, *October 17th:* Medico-legal Society, New York; Northwestern Medical and Surgical Society of New York (private); New Jersey Academy of Medicine (Newark); Philadelphia County Medical Society.

THURSDAY, *October 18th:* New York Academy of Medicine; Brooklyn Surgical Society; New Bedford, Massachusetts, Society for Medical Improvement (private); Medical Society of City Hospital Alumni, St. Louis; Atlanta Society of Medicine.

FRIDAY, *October 19th:* New York Academy of Medicine (Section in Orthopædic Surgery); Clinical Society of the New York Post-graduate Medical School and Hospital; Baltimore Clinical Society; Chicago Gynæ-

Births, Marriages, and Deaths.

Married.

KEANE—HOWARD.—In Los Angeles, California, on Saturday, September 29th, Dr. Charles F. Keane and Miss Ruth Howard.

KEITH—CRANDELL.—In New York, on Wednesday, October 3d, Dr. Horace C. Keith, of Yonkers, New York, and Miss Mary Alberta Crandell.

MONTGOMERY—HUBBERT.—In St. Louis, on Wednesday, October 3d, Dr. W. E. Montgomery, of Kansas City, and Miss Grace Hubbert.

Perry—Million.—In Alton, Illinois, on Wednesday, October 3d, Dr. Arthur A. Perry, of Laharpe, Illinois, and Miss Ora Million.

Rambaud—Bryan.—In Houston, Texas, on Tuesday, October 9th, Dr. George Gibier Rambaud, of New York, and Miss Lulu Fowler Bryan.

Rinehart—Pearce.—In Bellevue, Pennsylvania, on Thursday, October 4th, Dr. Clarence C. Rinehart, Jr., of Pittsburgh, and Miss Mae Pearce.

Van Meter—Wetherill.—In Jamestown, Rhode Island, on Saturday, September 29th, Dr. Benjamin F. Van Meter, of Lexington, Kentucky, and Miss May Hubbard Wetherill.

Wilson—Vandeventer.—In Versailles, Missouri, on Sunday, September 30th, Dr. J. Frank Wilson and Miss Della Vandeventer.

Died.

Archer.—In Greenville, Mississippi, on Monday, October 1st, Dr. Finley Archer, in the thirty-third year of his age.

Brown.—In Devon, Pennsylvania, on Wednesday, October 3d, Dr. William K. Brown, in the forty-ninth year of his age.

Browning.—In Brooklyn, on Wednesday, October 3d, Dr. William Webb Browning, in the forty-eighth year of his age.

Hanford.—In Brooklyn, on Saturday, October 6th, Dr. Marie Upton Hanford, wife of Dr. F. C. Hanford, in the sixty-third year of her age.

Irwin.—In Hollidaysburg, Pennsylvania, on Sunday, October 7th, Dr. Crawford Irwin, in the seventy-sixth year of his age.

Seay.—In Nashville, on Wednesday, September 26th, Dr. George Wharton Seay, formerly of the United States Volunteers.

Swan.—In Morristown, New Jersey, on Monday, October 8th, Dr. Charles Y. Swan, in the sixty-fifth year of his age.

Towle.—In Fryesburg, Maine, on Monday, October 1st, Dr. Clement Towle, formerly of the United States Army, in the seventieth year of his age.

Wright.—In Washington, on Monday, October 1st, Dr. Joseph Payson Wright, United States Army, in the sixty-fourth year of his age.

Obituaries.

COLONEL JOSEPH PAYSON WRIGHT, M. A., M. D., U. S. ARMY,

WASHINGTON, D. C.

Colonel Joseph Payson Wright, Assistant Surgeon-General of the United States Army, died suddenly at his residence, 818 Eighteenth street, N. W., Washington, on October 1st, in the sixty-fourth year of his age. Colonel Wright was the son of the late distinguished officer, Brevet Brigadier-General J. J. B. Wright, Surgeon, United States Army. He became a graduate in arts of Dickinson College, Carlisle, Pennsylvania, in July, 1858, and, later, in March, 1860, he graduated in medicine at the same college. The degree of Master of Arts was conferred upon him in the following year.

Dr. Wright entered the military service of the United States in the early years of the Civil War, becoming assistant surgeon on May 28, 1861, obtaining his captaincy on May 28, 1866, and majority on the 28th of July following. On the 23d of April, 1889, he became lieutenant-colonel, finally reaching the rank of colonel and assistant surgeon-general on May 16, 1894. Colonel Wright's service in the Civil War was principally in the departments of Ohio and Cumberland. He was with General Grant's army in the field at Florence, Mississippi, being engaged in executive work as medical purveyor and assistant medical director. He served at many posts and stations, particularly in the West. For many years subsequent to July, 1884, he was on duty at the military prison at Forth Leavenworth, Kansas.

From December, 1893, until November 24, 1899, at which time he was detailed as chief surgeon at headquarters, Department of Dakota, St. Paul, Minnesota, Colonel Wright served as medical purveyor in charge of the large depot at St. Louis.

Colonel Wright was on leave of absence, pending his retirement, which would have taken place December 25, 1900, at the time of his death. His loss will be regretted by many friends.

Pith of Current Literature.

Scottish Medical and Surgical Journal, September, 1900.

Transfusion. By T. Annandale, F. R. C. S.—This is the Harveian Oration, delivered before the Harveian Society of Edinburgh. The writer reviews the history of transfusion from the time of the ancient Egyptians to the present day. The first scientific publication on the subject was that of Lower, in 1665, who performed artery-to-vein transfusion on dogs. Experiments have proved that blood transfused from other animals is of little value, the corpuscles being rapidly disintegrated. In the case of direct transfusion, the procedure should be from vein to vein, and none but human blood should be so employed. The transfusion of pure or defibrinated blood has only a limited effect. The life of the red corpuscles in blood transfused is not more than two or three days. In the case of serious loss of blood it is important that the blood-vessels should be supplied with some form of harmless fluid which will prevent their undue contraction. It has been abundantly proved that the infusion of saline fluids into a vein, into the rectum, or into the cellular tissue is, although temporary, a successful means of relieving the condition due to hæmorrhage. The writer comes to the following conclusions in regard to transfusion:

1. It may be a valuable aid in saving life in the case of patients suffering from serious loss of blood, provided they show no signs of reaction after the ordinary means have been carefully tried.
2. The best form of transfusion for ordinary use is the injection of human blood mixed with a solution of phosphate of sodium and kept at a proper temperature to prevent clotting.
3. The injection of saline solution into a vein is the next best procedure.
4. Intraperitoneal injections of warm water or salines are most likely to be useful in cases in which the abdomen has already been opened.
5. Injections of warm water or salines into the rectum or into the cellular tissues is a safe and simple procedure, which may be usefully employed in any sudden emergency.

Inflammation of the Uterine Appendages. By Dr. A. H. F. Barbour.—Owing to the germicidal action of the vaginal secretion, micro-organisms do not play so important a part in the ætiology of inflammation in the genital tract as they do elsewhere. When the condition has developed, four symptoms are present to a varying extent: dysmenorrhœa, menorrhagia, pelvic pain, and sterility. If the ovaries and tubes are distinctly palpable, it means that they are enlarged by chronic inflammation. Treatment may be either palliative or operative. Curetting, even when not directly indicated, is often of service. Antiseptic douches are also of value, killing the micro-organisms present in the vagina, and the stimulus of the douche to the pelvic circulation favors absorption.

A Case of Cæsarean Section Followed by Subperitoneal Hysterectomy. By N. T. Brewis, M. B.—The writer reports a case of the above-mentioned operation performed upon a woman upon whom he had performed basilysis eighteen months before, she being unwilling to undergo the Cæsarean section at that time. Pelvimetry showed the true conjugate diameter to be only two inches and a half. The Porro Cæsarean operation was performed, followed by total hysterectomy. The mother made a rapid recovery and the child is well and thriving.

The Importance of Accurate and Detailed Diagnosis in Abdominal Cases. By Dr. W. Russell.—The writer insists upon the importance, not only of accurate, but of detailed diagnosis in abdominal disease, and states his disbelief in the wisdom and value of exploratory operations, terming them "merely a cloak for want of diagnostic skill." In support of his view he reports three cases, including one of gastric ulcers with acute appendicular inflammation simulating perforating gastric ulcer, and one of dyspepsia with chronic œsophageal ulcer simulating chronic gastric ulcer. In both these cases an exploratory operation was performed, but their true nature was only revealed post-mortem. In the third case, one of calculus in the lower extremity of the ureter simulating appendicular inflammation, an operation was only avoided by the correct diagnosis being arrived at.

A Case of Erythema Induratum Scrofulosorum. By Dr. D. S. Doughty.—The writer reports a case of the above-mentioned affection occurring in a girl aged twenty, which is of interest because of the patient's having a definite personal history of pulmonary tuberculosis, a connection not previously recorded.

American Journal of the Medical Sciences, September, 1900.

Case of Ligature of the Abdominal Aorta just below the Diaphragm, the Patient Surviving for Forty-eight Days; with a Proposed Instrument for the Treatment of Aneurysms of the Abdominal Aorta by Temporary Compression. By Dr. W. W. Keen.—The report of this remarkable case cannot very well be summarized. It is of great interest, however, as an example of "heroic" surgery. The instrument proposed for the treatment of such aneurysms in the future provides for the temporary compression of the abdominal aorta without danger to the thoracic duct. A series of experiments on dogs seems to demonstrate its utility.

Granular Degeneration of the Erythrocytes, and its Significance in Clinical Pathology. By Dr. Ernst Grawitz.

Idiopathic Dilatation of the Œsophagus. By Dr. Max Einhorn.—This unusual condition is generally the result of one of the following three causes: 1. Paralysis (or atony) of the œsophagus. 2. Spasmodic contraction of the cardia. 3. A lack in the reflex relaxation or opening of the cardia during the act of swallowing.

As to the diagnosis, when dysphagia of long standing exists, when the swallowing sound is found absent and no organic stricture is encountered, when the œsophagus is found partly filled with unaltered food, the diagnosis must be made. In the treatment, a sufficient diet, exercises for forcing the food down and lavage of the œsophagus are the essential points.

Myositis Ossificans. Two Cases. By Dr. Lydia M. De Witt.

Sarcoma of the Small Intestine. By Dr. E. Libman.

Boston Medical and Surgical Journal, October 4, 1900.

Remarks upon Obscure Non-traumatic Tumors of the Lower Abdomen Suddenly Appearing where None had Previously been Detected. By Dr. Maurice H. Richardson.—The author believes that here, as in all medical and surgical practice, we should use our common sense; and, considering carefully the history and the symptoms, should apply all reasonable methods of examination. Finally, if intervention is decided upon, we should proceed to operation without unnecessary delay.

In this class of tumors, intervention is called for if the symptoms are in the least degree urgent. Sudden formation, tenderness, hæmorrhage, and profound constitutional disturbance are the critical points that should control our decision. Tumors which do not possess these attributes of urgency may be watched, especially if the symptoms are subsiding and the patients improving. However, *all* require surgical intervention sooner or later. Cases are given.

A Case of Inflamed Peritoneal Cyst Simulating Ovarian Cyst with Twisted Pedicle. By Dr. Agnes C. Vietor.—The tumor upon examination was pronounced to be a peritoneal cyst, and, no doubt, was the outcome of repeated attacks of peritonitis from which the patient had suffered during the past seven years.

Serum Therapy in Pneumonia. By Dr. William H. Smith.—The work in this line is reviewed historically, and its present status considered. In dealing with the pneumococcus, we are dealing with an organism capable of many variations and degrees of virulence, and the sera obtained under such circumstances must of necessity vary both in strength and character. Washbourne's method of cultivation seems to have the preference thus far. Experimentally, antipneumococcus serum seems to be of value. As to its value, practical experience will have to tell; at present the reported cases are too few. What the future of serum therapy in pneumonia will be, it is too early to say.

Case of Patent Foramen in Advanced Life. By Dr. William L. Worcester.—The age of the subject was fifty-seven years. He was a full-blooded negro.

Medical News, October 6, 1900.

Internal Secretion of the Ovary. By Dr. Arthur W. Johnstone.—There is not one iota of proof that the ovary has any other function than the manufacture of eggs. The Graafian follicles commence to ripen at the sixth month of gestation and continue to do so thenceforth during life. Of all the ovaries after the menopause that the author has removed, not one was found that did not possess a small number of Graafian follicles in an immature state, and frequently some have been found that have recently ruptured. The ovary is in no sense a gland, and the arrangement of its epithelium does not justify the term gland.

If it is a lack of internal secretion that causes the nervous disturbances of the menopause, why is it that the little girl does not have them; and why will a delayed menstruation in a childbearing woman produce identically the same symptoms as those of the menopause?

From analogy and experience the author essays to demonstrate that there is not an iota of proof that the ovary has any kind of an internal secretion. The troubles which accompany the menopause are due to faulty oxidation and excretion.

For transplantation of the ovary, he has nothing but condemnation. He closes by saying that all this furor about the internal secretion of the ovary only results in bad work, as it gives a cloak for leaving patients in dangerous conditions, and an excuse for not doing the tedious part of our clinical work.

Internal Antisepsis. By Reynold Webb Wilcox, M. D., LL. D.—Internal antisepsis is possible; it may be useless or detrimental under certain conditions; or it may be absolutely contraindicated because of the patient. In this line we shall progress according as our knowledge of infectious diseases and the best means of combating them, rest upon a broader and more secure foundation.

The Treatment of Consumption at Home. By Dr. Joseph Eichberg.—Though conceding the value of climatic treatment in some cases, the author believes that it is the combination of climatic treatment with the succeeding home treatment that yields the best results. The dietetic and hygienic treatment consisting, of good air, good food, good rest, and good cheer in abundance, is the means that will enable the profession to rob the dread disease of many of its terrors. Experience at sanatoria has already proved that no air, even when seemingly unfit, is altogether objectionable, provided it be the air of outdoors. Twenty-four hours a day should be spent out of doors, and this is to be taken literally. Next to good air comes good food. He should eat even more than he wants. When other food cannot be taken, raw eggs up to two dozen a day are advised by Dr. Ely, of Rochester. Cream and butter should be introduced into as many dishes as possible. Stimulants of all sorts, and pastries, are of questionable propriety. Then comes rest—absolute. Exercise means tissue waste. Sleep as long as possible should be interrupted only for meals. With a normal temperature the patient may take a short walk, but the thermometer should be the constant guide. The normal influences surrounding the patient are all important; hence the necessity for the fourth factor—good cheer—is obvious. As for medicines, some simple tonic may be given, but medicines do not really enter as a necessary part into this plan of treatment. The physician must gain the confidence of his patient. Finally, the author says that it is fair to speak of recovery when the wage-earning capacity of the sufferer is restored, and improvement to this degree may be confidently expected in a number of cases hitherto regarded as to be condemned without hope.

Iritis. By J. H. McCassy, M. A., M. D.

Neuralgia Paræsthetica. By James J. Walsh, M. D., Ph. D.—A clinical memorandum.

Journal of the American Medical Association, October 6, 1900.

Aseptic Minor Gynæcology. With Demonstrations. By Dr. Augustin H. Goelet.—A homily on asepsis, with practical suggestions as to the arrangement of table and instruments, examination in private houses, emergency cases, etc. The use of a liquid soap—synol—for washing and sterilizing the hands, and also as a lubricant, is advocated. Properly used, this soap ought to destroy both the streptococcus and staphylococcus on the hands with five minutes' scrubbing. The use of a sponge-tent-cover made of rubber is also advocated.

Resection and Anastomosis of the Divided Ureter. By Dr. Howard A. Kelly.—This extremely delicate portion of the surgeon's work is dwelt upon by the author and illustrated. There is also a special ureteral guide proposed. The operation of uretero-ureterostomy—anastomosis of the ureter into itself—is to be preferred, when both ends are accessible, to that of ureterocystostomy—anastomosis into the bladder. The subject, however, is one not included within the scope of general practice. Cases are given.

Lessons from a First Series of One Hundred Cataract Operations. By Dr. F. T. Rogers.—More attention should be paid to the general condition of the patient. The operation should be done under the best possible illumination. The exact site of the corneal section, provided it is large enough, is not important. The early instillation of atropin is of use when iritis and irido-cyclitis are complications. Discission of the capsule should be done. Infection of the wound does not necessarily doom the eye. A frank statement should always be made to the patient of the possible outcome.

Yellow Fever; Its Nature and Cause. By Dr. Eugene Wasdin.—Though Sanarelli first saw the germ and named it, it has remained for the United States to furnish the indubitable proofs of the value of the Italian discovery, and further to establish the scientific explanation of this disease which has so greatly occupied our attention.

Demonstration of Home Milk Modifier. By Dr. A. S. Sherman.—This apparatus consists of a glass jar showing seven panels, with lip, capable of holding sixteen ounces. One of the panels presents an ordinary ounce graduation, the other six panels present six different formulæ for the modification of cow's milk, each formula so arranged as to make it suitable for a certain period of the infant's growth.

The Reefing Operation for Movable Kidney. By Dr. Edward Wyllys Andrews.—The adipo-cellular capsule and Gerota's capsule are strong enough to hold up a wandering kidney. Stitches cannot hold this tissue, but pressure between flaps may do so. Nephropexy will often fail in wandering kidney brought about by gastroptosis and enteroptosis. In this new method the interposed fascia has not caused failure of union in any case.

Acute Graves's Disease. By Dr. James R. Arneill.

Philadelphia Medical Journal, October 6, 1900.

Hæmorrhagic Pancreatitis and Fat-necrosis following an Operation on the Gall-bladder. By Dr. Charles G. Stockton, and Dr. Herbert U. Williams.

Obstruction of the Common Bile-duct. By Dr. John B. Deaver.

The Relation between Gall-stones and Appendicitis. By Dr. A. J. Ochsner.

The Ætiology of Gall-stones. By Dr. Frederick G. Shattuck.—A sterile foreign body does not lead to gall-stone formation, though a sterilized gall-stone may be penetrated by, at least, the colon bacillus. The contents of the hepatic and cystic ducts, and also of the gall-bladder, are usually sterile. The presence of bacteria in the common duct is explained by its nearness to the intestines. A number of organisms may produce gall-stones experimentally. In a large proportion of cases, the presence of bacteria has been demonstrated. The clumping of the typhoid bacillus may play quite an important rôle, and clumped bouillon culture, introduced into the gall-bladder of a rabbit, has produced gall-stones. The colon bacillus and the typhoid bacillus are the most common bacterial agents in gall-stone formation.

Indications for the Drainage in Diseases of the Biliary Passages and the Technique of Operation. By Dr. J. E. Summers, Jr.

A Case of Gall-stone Obstruction of the Cystic Duct, Illustrating the Difference in Pathology, Symptoms, and Treatment between this and Gall-stone Obstruction of the Common Duct. By Dr. Frederick A. McGrew, A. B.

Diagnosis of Medical and Surgical Diseases of the Liver and Biliary Passages. By Dr. John Herr Musser.

On Lesions of the Pancreas Simulating Gall-stone Impactions of the Common Duct. By Dr. Maurice H. Richardson.

Two Interesting Cases: Gall-stone of the Cystic Duct, with Situs Viscerum Inversus; and Gumma of the Liver. By Dr. Frank Billings.

Medical Record, October 6, 1900.

Medullary Narcosis during Labor. By Dr. S. Marx. —Twenty-three cases are used as the basis of this article, confirming the statement of the author that in medullary narcosis we have a means of the greatest importance and of supreme scientific value, not alone for annulling the pains of labor, but as a substitute for general narcosis, covering an enormous domain in surgery. The technique is given in detail. He lays stress upon the fact that, to an absolute analgesia the escape of subarachnoid fluid before the cocaine solution is injected is a *sine qua non.* Asepsis of person, instruments, patient and solution, must be as carefully attended to as though the belly were about to be opened. The cases are very interesting and tend to confirm what at first blush would seem to be the very sanguine statements of the author.

Observations on Subclavian Deligation. By Dr. Schuyler Colfax Graves.—The author proposes to substitute for a difficult guide in the ligation of the subclavian artery, an easy one, viz., the cord of the brachial plexus of nerves for the scalenus anticus muscle. In the performance of this operation, if the more easily located brachial cord is exposed and the finger placed behind it, less time will be consumed and fewer important structures endangered. A shrinkage in the mortality rate should result. An illustration made from a personal dissection accompanies the text.

Tuberculosis and its Treatment. By Dr. Margaret Stanton.—The author wonders if it is too much to require unanimity in the treatment of tuberculosis. The meeting at Berlin, a year ago, did not settle the vexed question of treatment, but the value of the outdoor treatment was admitted by the majority. This treatment is outlined in this paper. The author concludes the paper by asking "What is to be done for those who from their own resources cannot hope to avail themselves of this or any other means of cure?" The building and maintenance of sanatoria by the State seems to the author to be the proper answer.

Appendicitis Larvata and Inflammation of the Right Broad Ligament, Tube, and Ovary. By Dr. Otto Thienhaus.—In the treatment of appendicitis larvata only operative measures should be considered, because they are the only means of correcting the existing pathologic conditions, and, because the patient is in constant danger of an attack of appendicular inflammation followed by peritonitis. In young female patients one has to deal with the possibility of a subsequent pregnancy, which calls for the most serious prognosis, both for the fœtus, and for the mother. Abortion is practically inevitable. Some cases are given in point.

Lancet, September 22, 1900.

The Treatment of Some Common Diseases of the Skin. By Dr. P. S. Abraham.—*Eczema.*—The author believes in internal as well as external medication, and to this end often prescribes a mixture containing iron and magnesia. In acute eczema, the external remedy most often used is the unguentum hydrargyri cum plumbo, which contains: acetate of lead 10 grains, calomel 10 grains, oxide of zinc 20 grains, ointment of nitrate of mercury 20 grains, and vaseline 1 ounce. Where the weeping and inflammation are excessive, a dusting powder of starch ½ ounce, oxide of zinc 2 drachms, and borax 1 drachm, is often of great service. The zinc-gelatin treatment of Pick and Unna is also valuable. In dry eczemas, tarry ointments are usually very efficacious. In eczemas of the limbs the ointment should be bandaged on. Too strong ointments should be especially avoided.

Psoriasis.—Although the constitutional element in psoriasis is of even more importance than in eczema, the author holds that external treatment is of much greater use than internal treatment in this disease. He uses chrysarobin in the form of a solution, 40 grains of chrysarobin and 10 grains of salicylic acid in 1 ounce of chloroform solution of gutta-percha. This forms a thin film which does not stain the clothing. For tender areas he uses a strong tar or creolin ointment. Arsenic and thyreoid gland extract he has found to be of no service whatsoever.

Impetigo.—This disease is easily cured with ammoniated mercury ointment.

Acne.—An aperient mixture containing iron and magnesia should be given between meals, and the following ointment applied to the spots: Sulphur 30 grains, ammoniated mercury 10 grains, sulphide of mercury 10 grains, and vaseline 1 ounce. The application of pure carbolic acid to each spot is of great value.

Ringworm.—In obstinate cases of ringworm of the scalp, the scalp should be shaved every fortnight and the following ointment applied and covered with a calico skull cap: Carbolic acid and salicylic acid, of each 1 drachm, vaseline 1 ounce.

The Ætiology of Rheumatic Fever. By Dr. F. J. Poynton and Dr. A. Paine.—(A continued article, which will be abstracted when completed.)

Some Points about Post-diphtheritic Paralysis. By Dr. B. E. Myers.—During 1899 there were 1,316 cases of diphtheria in the Park Hospital, with 275 cases of post-diphtheritic paralysis, about twenty per cent. Of these, fifty-three per cent. were in males, and 47 per cent. in females. Taken in five-yearly periods, the majority of cases occurred between the ages of five and ten years. Eighty deaths from post-diphtheritic paralysis occurred during the year; of these, sixty-four (eighty per cent.) were due to cardiac paralysis. Of all forms of paralysis twenty-three per cent. were of the cardiac variety, most of these occurring between the ages of six and seven. The date of onset of the cardiac paralysis ranged from the second to the thirty-sixth day. The average duration of life after cardiac paralysis was four days. Many of the cardiac cases showed marked bilateral swelling of the cervical glands. There were twenty-one cases of diaphragmatic paralysis (7.6 per cent.). Of these, eleven (50 per cent.) terminated fatally. The majority of the cases occurred between the ages of two and six years. There were 110 cases where the palate was alone affected, and 56 where it was affected with other parts. The largest number of cases occurred in November (159) and the smallest number in April (48).

Some Notes on the Use of Mercurol: A New Remedy in Urethritis. By Dr. R. Guitéras.—Mercurol is a chemical compound of nucleinic acid with mercury, the nucleinic acid being obtained from yeast. It is a brownish-white powder, soluble in water but insoluble in alcohol. The average strength best borne by the patient is ten grains to the ounce of water, or two per cent. The patients injected the solution themselves with a small urethral syringe three times a day, holding in the injection each time for five minutes. The results in 100 cases of gonorrhœa were as follows: Cured in three weeks, 22; cured in four weeks, 28; over four weeks, 17; unfinished treatment, 18; and still under treatment, 15. Only two cases suffered from complications, one having developed gonorrhœal rheumatism and one epididymitis. In only one case was there any marked posterior urethritis. It would seem that mercurol quickly destroys the gonococcus, lessens the severity of the inflammation, and tends to prevent the development of complications. But it does not entirely stop the discharge in all cases, and where a slight discharge persists, it is better to change to a mild astringent solution.

Beri-Beri. By C. Bullmore, L. R. C. P.—The author concludes that the beri-beri seen in England is not the same as the beri-beri of the Malay Peninsula and elsewhere, and that it is not epidemic. After reviewing the various theories as to its causation, he suggests that it is due to ptomaine poisoning, the ptomaines arising from the decomposition of tinned and salted meats.

British Medical Journal, September 22, 1900.

A Discussion on the Correlation between Sexual Function, Insanity and Crime. By Dr. H. Macnaughton-Jones and others.—The first speaker on this subject arrives at the following conclusions: 1. Functional disorders of ovulation are frequently attended by mental aberration and often originate the mental disturbance. The same is true of pathological disorders of ovulation. 2. Such mental disturbance is usually of the neurasthenic character and is associated with visceral or other neuroses. It rarely assumes so grave a type as melancholia, mania, or dementia. 3. When, in an insane person, ovulation and its external manifestation, the menstrual discharge, are erratic or absent, such absence may be a result of the insane condition and not its cause. Yet such abnormal menstruation aggravates the insanity, and should always be treated therapeutically or by operative measures. 4. As a *universal* practice, the gynæcological examination of an insane woman is not advisable. It is a matter for the discretion of the psychologist. 5. The removal of the adnexa or uterus in insane women is justified where there are gross lesions of the former or tumors of the latter. 6. From the evidence at hand it does not appear that there is, in healthfully-minded women who suffer from diseases of the genitalia, any special risk of post-operative insanity. In cases in which a prior psychopathic predisposition exists, there is a larger percentage of post-operative mental disturbance than follows other operations. 7. Where grave mental disease follows upon sexual disorder, there has usually been in the woman affected an underlying, and often unrecognized, psychopathic predisposition. 8. The relation of aberrant sexual function or of a disorder of menstruation to any criminal act ought to be taken into consideration in determining the responsibility of the woman.

Epileptic Insanity. By Dr. E. S. Pasmore.—The writer holds that the maniacal condition which is termed "recurrent mania" is an epilepsy of the psychic type, and he proposes to call it psychic epilepsy or epileptoid mania. But it must not be confounded with those exacerbations of mental excitement seen in the chronic delusional insane. In support of his views he reports six cases of chronic epileptic insanity and five cases of so-called "recurrent mania," and reviews the features which are characteristic of epilepsy, epileptic insanity, and recurrent mania. For clinical purposes the insanities associated with epilepsy may be classified as follows: 1. Congenital, including (*a*) idiocy (epileptic), (*b*) imbecility (epileptic). 2. Idiopathic epileptic insanity. The ordinary epileptic insanity of the adult. 3. Hystero-epileptic insanity of young girls at the age of puberty. 4. Psycho-epileptic insanity: (*a*) recurrent or epileptic mania, (*b*) *Amnesia transitoria,* and (*c*) *epilepsic larvée.*

Insanity in Lead Workers. By Dr. R. Jones.—The conclusions arrived at by the author are: 1. Lead poisoning is a contributory factor in the causation of insanity, and there is a higher average number of general paralytics in lead workers than in others of the population. 2. In these cases there is a tendency to cardiac, renal and arterial degeneration, with complications due to syncopal or epileptiform fits. 3. Most cases present signs of anæmia and ill health with unsteady gait, muscular weakness, and a history of failing vision. 4. The mental symptoms may be grouped as follows: (*a*) toxæmic, with sensory disturbances, tending to rapid recovery; (*b*) hallucinations of sight and hearing, which may be irremovable; they usually are delusions of persecution; (*c*) symptoms resembling those of general paralysis with tremors, incoordination, and profound listlessness amounting to dementia, but which tend to get well. 5. In most cases of lead poisoning presenting mental symptoms, the tendency is to recovery unless the patient dies early.

Acute Delirious Mania. By J. Turner, M. B.—By acute delirious mania, the author means a condition of delirium associated with a group of bodily symptoms of a typhoid type. He believes that all such cases are of toxic origin, whether the poison is introduced from without (*e. g.,* alcohol), or is absorbed septic material, or due to self-intoxication as the result of perverted metabolism. Fatty degeneration of the liver is almost invariably met with in these cases, a further evidence of their toxic causation. He has studied the changes found in the nerve cells in cases of acute delirious mania, and in every one he has found the giant nerve cells to show abnormal staining qualities. They take the stain intensely, and contain much yellow pigment. The author believes that, from a section showing such cells, a tolerably accurate diagnosis could be formed of the mental condition preceding death.

A Discussion on the Treatment of Epileptics in Colonies. By Dr. W. A. Turner and others.—The points brought out in the discussion were: 1. The education of epileptic children. 2. The influence of the colony system upon the sane adult epileptic. 3. The colony system as a means of treating young adult epileptics at the commencement of their disease. 4. The cure of epilepsy.

The Relation of the Lunacy Laws to Neuro-psychological Diseases. By Dr. J. M. MacCormac.

Organo-therapeutics in Mental Diseases. By Dr. C. C. Easterbrook.—The author has made a very careful study of the effects produced by extracts of the various organs when administered to subjects of mental disease. Their effect upon the temperature, body weight, pulse, respiration, bowels and urine, was carefully noted in each case. 1. Thyreoid extract, given to 130 patients with all varieties of insanity. Of these, twelve recovered, twenty-nine were improved and eighty-nine were unimproved. Thyreoid probably acts by freely stimulating metabolism. 2. Parathyreoid extract, three cases. No therapeutic result. 3. Thymus extract, two cases. No mental, but distinct physical, improvement in both cases. 4. Pituitary extract, four cases. No mental improvement. 5. Cerebral or brain extract, nineteen cases, two recoveries, three subjects improved and fourteen unimproved. Of the two patients that recovered, one was a case of melancholia, the other of puerperal mania. 6. Choroid plexus extract, two cases. No mental improvement. 7. Suprarenal extract, four cases. A subject of acute mania was distinctly improved. The other three patients did not improve. 8. Splenic extract, two cases. No effect. 9. Orchitic extract, eight cases. Slight mental improvement in two cases. 10. Ovarian extract, thirty-six cases. Two subjects improved, but only temporarily. 11. Uterine extract, one case. No improvement in mental condition. 12. Mammary extract, two cases. No improvement in mental condition. In conclusion the writer states that apart from the general tonic effect upon all metabolism, it is extremely doubtful whether each organ possesses a specific internal secretion in the sense intended by Brown-Séquard.

Some Cardio-psychical Associations. By J. R. Whitwell, M. B.—The author discusses the association of cardiac abnormities with mental derangement, and reports several illustrative cases.

On Blood Pressure in the Insane. By Dr. M. Craig. —It is now accepted that in states of acute mania the blood pressure is low, whereas in the majority of cases of melancholia it is high: in other words, that with the affective disorders of the mind there is an alteration in the tonicity of the vasomotor system. Low blood pressure connotes restlessness, which is a constant symptom in mania, and the author has often relieved restlessness in cases of mania by rectal injections of from eight to ten ounces of water. If the water is retained, the patient's condition usually improves steadily.

Peripheral Neuritis and Insanity. By Dr. R. P. Smith.—During the past ten years attempts have been made to associate a special form of psychosis with multiple neuritis. The association is probably correct as regards the cases of alcoholic origin. The writer reviews all the cases of this affection seen by him since 1885, twenty in number, and, so far, has not met with any case in which it could be said that there was a characteristic polyneuritic psychosis apart from alcoholism. Nor has he seen any case of polyneuritic psychosis due to septic or metallic poisoning.

A Discussion on Muscular Tonus in Relation to Diseases of the Nervous System. By Dr. F. W. Mott and others.

The Condition of the Cells in the Spinal Cord after Various Nervous Lesions. By Dr. W. B. Warrington.

The Metabolism of the Nucleins in Birds. By Dr. T. H. Milroy.

A Note on Respiration. By Dr. R. J. Anderson.

Observations on the Temperature of Man after So-called Heat Stroke. By Dr. M. S. Pembrey, W. H. Passmore and E. T. Clayton, M. R. C. S.

Anæsthetics and Urinary Secretion. By Dr. W. H. Thompson.—The author reports the results of experiments performed on dogs, in which various anæsthetics were administered and the amount and character of the urinary secretion noted. Ether caused increased diuresis, with a reduction of the excretion of nitrogen. Chloroform caused a diminution in the secretion of urine, with an after-increase. The nitrogen output was reduced. A. C. E. mixture gave variable immediate results, but always a pronounced after-diuresis, with the nitrogen increased.

The Effects of Inhalation of Certain Anæsthetics on the Kidneys. By Dr. D. Buxton and Dr. A. G. Levy.

The Retinal Response to Light. By Dr. A. D. Waller.

The Structure of the Mucous Membrane of the Œsophagus. By Dr. D. J. Coffey.

A Digital Sphygmograph. By Dr. A. D. Waller.

On Some Changes in Volume of the Submaxillary Gland Accompanying Secretion. By Dr. J. L. Bunch.

L'Indépendance médicale, September 19, 1900.

Acne.—M. Gonzalve Menusier says that the treatment of acne must be tonic, the frequently accompanying anæmia must be attacked by iron, cold baths and wholesome food. Alkaline antiseptics must be given to combat the hyperacidity of the stomach. For the local lesions on the face, boric-acid solutions are the best.

Gazette hebdomadaire de médecine et de chirurgie, September 16, 1900.

Manubrial Adenitis.—M. Maurice Patel describes three sets of glands behind the manubrium of the sternum: (1) the superficial, lying in front of the manubrium, situated in front of the superficial cervical aponeurosis; (2) glands situated medially, in the substernal space; (3) deep or retro-manubrial glands, situated in front of the trachea behind the substernal space and the sterno-thyreoid muscle. Inflammation of the deep glands is the most frequent. The author records the only known case of suppuration of the superficial gland. Suppuration of the deep gland causes signs of compression and has a tendency to involve the mediastinum. Suppuration of the superficial glands is not so serious, but its termination leaves a cicatrix in front of the sternum.

September 23, 1900.

Hæmatemesis in Intestinal Obstruction.—M. Louis Tixier and M. Charles Vinnay say that vomiting of blood may appear in the course of any strangulation of the abdominal organs. It has been observed in cases of strangulation of the omentum, strangulated hernia, appendicular inflammation and appendicular peritonitis. It is probably due to the acute mechanical lesions and to inflammations of the intestines and peritonæum which evoke congestion, in varying degrees, that may lead to hæmorrhage. They report two cases of intestinal obstruction in which hæmatemesis was a prominent symptom and in which, at autopsy, no ulceration of the stomach or of the intestines could be found. They regard the symptom as one of grave prognostic import.

Revue de médecine, September, 1900.

Hepato-pancreatic Sclerosis with Hypersplenomegaly.—M. Georges Guillain reports the case of a woman, fifty-six years of age, who for seven years had been jaundiced; the icterus appeared suddenly and though it was persistent, it increased and diminished at times. Pain in the hepatic and splenic regions was the only symptom. An hypertrophy of the liver and an enormous spleen were the only diseased organs found. Sugar was present in the urine but no albumin or casts. There was no history of malaria or syphilis, and cirrhosis of the liver and heart disease were excluded. The diagnosis of chronic infectious splenomegaly was made. The blood examination showed 4,500,000 red cells and 9,000 leucocytes. There were eighty-two per cent. of polynuclear neutrophiles, seventeen per cent. of mononuclear cells and one per cent. of eosinophile cells. Microscopic examination showed a distinct sclerosis of the pancreas and liver, and a colossal spleen, weighing sixty-five ounces. The author regards the case as one of splenic origin.

Compression of Superior Vena Cava by an Aortic Dilatation.—M. Charles Dopter narrates the case of a man, forty-four years of age, who presented himself with cyanosis, œdema of the skin of the chest, pale, cold hands and feet. Tachycardia was present, but no cardiac murmurs were elicited. The respiratory sounds were somewhat diminished at the base of the right lung. The diagnosis was made by the aid of the Röntgen rays. As the man had given a history of syphilis, he was placed upon anti-syphilitic treatment and made a perfect recovery.

Valvular Pneumothorax.—M. F. Duplant concludes a report of several cases as follows: 1. Pleuritic adhesions do not interfere with the evolution of a pneumothorax. It is usually a bronchio-cavernous fistula which is converted into bronchio-pleural fistula. 2. The frequency of adhesions in tuberculous subjects gives an inkling as to why the frequent pneumothorax is either partial or valvular; the lung does not at once withdraw completely and the air frees the adherent membrane, just as in a subcutaneous emphysema it separates the lax connective tissue. 3. The majority of cases of tuberculous pneumothorax are the result of a bronchio-pleural fistula, and give the symptoms of a valvular pneumothorax. The mechanism of closure of the fistula during normal respiration cannot operate after the complete retraction of the lung which accompanies absolute immobilization of the thoracic wall. The treatment of the condition is palliative.

Hemiparaplegia with Crossed Hemianæsthesia Due to Medullary Syphilis. By M. Brousse and M. Ardin-Delteil.

Lyon médical, September 23, 1900.

Double Homonymous Hemianopsia. By M. Jacquean.

Two Cases of Leucoplacia of the Bladder.—M. A. Verrière, after narrating the records of two cases, says that leucoplacia of the urinary tract is essentially a chronic inflammation of the mucous membrane; in certain cases it may form the nidus for a malignant growth; the diagnosis may be made clinically by a microscopic examination of the urine. Topical treatment gives good results. Curettage or actual removal of the diseased areas is the measure of choice.

La Presse médicale, September 19, 1900.

Epiphysial Dislocation in Syphilitic Infants.—M. Marcel Labbé says the affection is not very rare, as it occurs in about six per cent. of children born with syphilis. If the infection is a mild one, the lack of epiphysial attachment remedies itself. The diagnosis may be made by the absence of function and occasionally of pain, and by the presence of other manifestly syphilitic lesions. The bones are attacked by preference in this order: the humerus, the tibia, the femur, the radius. These children must be nursed if possible and must be placed on mercurial treatment.

Prolapse of the Uterus.—M. Coville divides his subject into three parts: partial prolapse, prolapse complicated by tumors or uterine displacements, and total prolapse. For a partial prolapse, he advises, first, rest in bed; later, vaginal and rectal douches of hot water twice daily; and, when the tone of the vagina has been restored, an anterior and posterior colporrhaphy, combined with a perineorrhaphy, if necessary. When there is a coexisting retroflexion, he prefers Alexander's operation. If a fibroid tumor or carcinoma is present, hysterectomy is the operation of choice. When a total prolapse exists, he prefers a hysterectomy if the woman has passed the child-bearing period, combining it with Hegar's colpectomy to diminish the size of the vaginal outlet. He believes that the day of the pessary for the relief of this condition has gone.

September 22, 1900.

Ligature of Spermatic Cord for Tuberculous Testis.—M. P. Mauclaire cites the various methods of operating for tuberculosis of the testicle and epididymis: castration, excision of the testicle and epididymis, epididymectomy, excision of the infected foci, and actual cauterization. These methods he finds inferior to the simple ligation of the spermatic cord. The moral tone of the operation is high, since the patient retains his testicle, although it may become atrophied to some extent. The other testicle, as well as the rest of the body, is saved from infection. The prostate, too, is preserved from disease. The collateral circulation is quickly established. The cure is, of course, not radical.

Journal des praticiens, September 22, 1900.

Citrate of Bismuth and Double Citrate of Bismuth and Silver in Gonorrhœa.—M. Balzer and M. Leroy have used these salts experimentally by irrigations of the urethra. With the citrate of bismuth, they began with a solution of the strength of 1 to 20,000 and in six sessions increased the strength to 1 to 500. With the latter salt, they started with 1 to 2,000 and increased it to 1 to 1,000. They conclude that the citrate of bismuth has a very feeble action in acute or severe cases. When an acute case is declining, or in a superficial chronic case, it is valuable, but has not the penetrating power of the silver salts. The double salt of citrate of bismuth and silver acts as the citrate of silver, but the authors believe that the presence of the bismuth moderates the irritating qualities of the silver salt.

Sodium Sulphate Cure of Dyspepsia.—M. Manquat gives one drachm and a half of sodium sulphate dissolved in water at a temperature of 100° F. in cases of hyperæsthesia of the gastric mucous membrane, spasmodic contractions of the pylorus, acid regurgitations and gastric atony. The treatment is given about once in five days, one hour before breakfast. It has the advantages of a gastric lavage and of stimulating the gastric glands and mucous membrane. He has seen the attendant anæmia disappear, he has found it valuable in the stomach disturbances of tuberculosis and the infectious diseases, the hypersecretion of the stomach accompanied by pain disappears, and the dyspeptic glycosuria with hepatic congestion diminishes. This treatment must be carefully watched and must be accompanied by suitable diet and regimen.

Revue de chirurgie, September, 1900.

The entire number is devoted to the record of the proceedings of the gynæcological and surgical sections of the Thirteenth International Medical Congress held at Paris, August, 1900.

Die medicinische Woche, September 17, 1900.

Tuberculosis and Phthisis.—Dr. Rudolf Virchow writes a letter in which he states that he does not wish to be considered as thinking that all forms of early phthisis can be cured, and cites acute miliary and submiliary tuberculosis as an example. While he does not belittle the rôle of the tubercle bacillus, he urges the continued pathological study of tuberculous lesions as the probable road to the evolution of a cure.

Artificial Feeding of Infants. By Dr. A. Monti.

Compressed Oxygen in Emergency Work.—Mr. A. Giersberg, the director of the Berlin Fire Department, has devised an apparatus containing compressed oxygen which can be used by firemen on duty and for the purpose of restoration of persons who have been overcome by smoke. It is light and portable and so arranged that it can be carried on the back.

Pneumin and Pulmoform.—Dr. J. Jacobson describes pneumin as a yellowish powder, odorless and tasteless, easily soluble in ether and alcohol, insoluble in water. It is a derivative of formalin and creosote. It is nonpoisonous and does not irritate or burn the mucous membranes. It has been used with marked benefit by the author in cases of pulmonary phthisis, in doses of seven and a half grains after each meal. Pulmoform is the derivative of formalin and guaiacol. The two drugs seem to have identical action and to be equally innocuous.

Cure and Non-Cure of Syphilis. By Dr. M. Jastrowitz.

Prevention of Pest. By Dr. J. Loewenthal.

Klinisch-Therapeutische Wochenschrift, September 23, 1900.

Use of Widely Stretched Drainage Tubes.—Dr. Carl Donati describes this method of using drainage tubes or catheters. The tube is stretched over a sound or a decalcified bone of appropriate sound and can thus be introduced into the natural or artificial canals of the body more easily than when inserted alone. The sound is thoroughly anointed with glycerine or vaseline, the tube is pulled over it so that both ends of the sound are covered. The tube is then forcibly bent over the ends of the sound and assumes a short distance from its end a cone shape. One of these cones is cut away so that a cavity exists and the tube is ready for introduction. It is useful in keeping cavities open, as, the uterus, fistulæ and sinuses, wounds after gastrostomy and thoracotomy. It has proved very efficacious in stopping an epistaxis. After its introduction into the nose, it contracted and the pressure stopped the bleeding, while the patient could easily breathe through the tube. (*To be continued.*)

Treatment of Tuberculosis with Thiocoll.—Dr. J. Brann says thiocoll is a guaiacol preparation which is very soluble in water. It is an odorless powder with a salty, slightly bitter taste which disappears soon after taking it. Patients do not object to it. In doses of from seven-and-a-half to fifteen grains it exerts a beneficial influence in tuberculous subjects. The appetite is improved, strength is increased, the bronchial secretion and the cough are diminished, the patients sleep well, and do not sweat at night.

Diagnostic Value of Babinski's Toe Phenomenon. By Dr. J. Kollarits.

St. Petersburger medicinische Wochenschrift, September 15, 1900.

Reform in Russian High Schools from the Sexual Standpoint. By Dr. Nikolai Kumberg.

Wiener klinische Wochenschrift, September 20, 1900.

Ætiology of Primary Acute Gastro-intestinal Diseases of Sucklings.—Dr. Theodor Escherich divides the gastro-intestinal diseases of nursing infants as follows, so far as they are evoked by bacteria:

A. *Ectogenous Intoxications* (through the ingestion of the poisons of fermented milk): (a) toxic catarrh of the stomach and small intestines; (b) cholera infantum.

B. *Chymous Infections* (endogenous intoxication through abnormal fermentation of intestinal contents, producing, first, a secondary irritation and disease of the intestinal wall): (a) bacterial dyspepsia (acid diarrhœa); (b) dyspeptic catarrh (catarrh diarrhœa).

C. *Intestinal Infections* (inflammatory irritation or invasion of the intestinal wall by pathogenic bacteria): (a) inflammatory catarrh (inflammatory diarrhœa); (b) inflammation, gastritis, gastro-enteritis, enteritis, enterocolitis, colitis.

Mixed infections are frequently seen which play an important part in the complications and sequels. The facility of lactic fermentation and the slight resistance of the infant's stomach, renders infection particularly easy. The most frequent flora are the staphylococci, the streptococci, bacterium coli, steptothrix and pyocyaneus bacillus.

Researches upon the Exudate Following Tonsillotomy.—Dr. L. Harmer speaks of the exudate which appears upon the stump of the tonsil after that organ has been excised. He has examined thirty cases bacteriologically, and in only one did he find the Klebs-Löffler bacillus. In eight cases, bacilli which morphologically resembled those of diphtheria were seen. Animal experimentation with these bacteria in pure culture were entirely negative, however. He concludes that the exudate consists almost entirely of fibrin, leucocytes and the necrosed tissue of the surface of the wound; cocci predominate in the flora found; occasionally, the diphtheria bacillus may be discovered; it is wise to keep patients on whom the operation has been performed free from all possible infection, and it is best not to operate during a diphtheria epidemic.

Contribution to the Study of Scarlatina and Measles.—Dr. Jaroslav Elgart concludes from a study of a large amount of material that both these diseases may be prevented from spreading, if an infecting case or an epidemic is mild, by the inhalation of disinfectants. He has employed for this purpose boric acid, equal parts of lime water and water, trichloride of iodine one-half-per-cent. solution, or a three-per-cent. sodium chloride solution.

Deutsche Aerzte-Zeitung, September 15, 1900.

Microscopic Study of Hæmoglobin Crystals and their Derivatives. By Dr. R. Kobert. (*Continued article.*)

Operations for Hæmorrhoids.—Dr. Egbert Braatz proceeds as follows: He seizes the individual piles with a forceps, and with scissors cuts them away, leaving a small "comb," which he sews with fine catgut. The ends of the suture embrace the angles of the wound. If there is any bleeding, a hæmostatic suture is passed, or an artery forceps is applied. A tampon cannula is then inserted into the rectum. He condemns the use of the cautery as leaving an uncertainty as to the cessation of bleeding, and as prolonging the convalescence. The author's after-treatment does not differ from that in common use.

Further Experiences with Heroin.—Dr. E. Stadelmann, comparing heroin with morphine, says that the former can be beneficially employed in smaller doses than the latter; that the habit of using heroin is not so powerful as the morphine habit, and that when morphine is used as a substitute for heroin, very small doses of morphine suffice to produce the desired effect. The author says that when heroin is employed subcutaneously, it appears to be twice as poisonous as morphine and should therefore never be given to the patient to be used at his volition.

Bicycling from the Medical Standpoint. By Dr. Fürbringer. (*Continued article.*)

Berliner klinische Wochenschrift, September 10, 1900.

Harmful Suggestions to Injured Persons.—Dr. W. Seiffer speaks of the great rôle which suggestion plays in persons of a susceptible temperament. He emphasizes this especially in speaking with persons who have been subjected to an accident or injury of any kind. A careless word as to the prognosis, especially if spoken at the first interview, may work harm to the patient in leading him to conclude that he may never recover. The author cites a number of illustrative cases.

Polyneuritis Following Malaria and Landry's Paralysis. By Dr. R. Baumstark. (*To be continued.*)

Sterilization of Catheters; Asepsis of Ureteral Catheterization.—Dr. M. Katzenstein says that the sterilization of catheters with bichloride of mercury is insufficient and unsatisfactory. He has devised an apparatus for the sterilization of catheters by means of formaldehyde vapor at a temperature of 140° F., which will render ordinary catheters sterile in ten minutes and ureteral catheters in twenty minutes, without injury to the catheters. This he accomplishes by having the spaces for the catheters and for the development of the vapor distinct. For this purpose, the author has also devised a ureteral catheter which is protected, simultaneously, during its introduction into the bladder.

Gonorrhœal Inflammation of the Joints.—Dr. Friedrich Rubinstein accepts König's classification: gonorrhœal dropsy, sero-fibrinous inflammation, suppurative and phlegmonous inflammation. The first usually offers a good prognosis when rest, iodine applications, blisters and creosote vasogen, are prescribed. A puncture of the joint may be necessary if the transudation is excessive. If the transudate is fibrinous, rest, immobilization and, possibly, a plaster of Paris splint, will be necessary. An ice-bag is also desirable. If pus appears, incision and drainage of the joint are indicated; or a resection of the joint may be called for. After the disease has run its course, active and passive motion, and, when the pain has disappeared, massage and warm baths, are the necessary elements of treatment.

September 17, 1900.

Case of Diffuse, Chronic Œdema of the Skin.—Dr. Heinrich Rosin reports a case of general, diffuse, chronic œdema of the skin, with no kidney lesions, no heart disease, a normal fundus of the eye, and no evidence of cerebral disease. He thinks that in the absence of all other organic lesions, the condition must be attributed to a peculiar permeability of the vessels to the fluids of the blood.

A Case of Multiple Jointed Fingers. Dr. Joachimsthal reports the case of a child whose left index finger is double and whose right thumb possesses three joints. In a Röntgen picture it seems that a supernumerary digit which made its appearance was in reality a second index finger.

Metrical Eye Disturbances in Hemianopsia. By Dr. H. Liepmann and Dr. E. Kalmus.

Polyneuritis Following Malaria and Landry's Paralysis. (*Conclusion.*) By Dr. R. Baumstark.

Another Case of Polyneuritis Following Malaria. By Dr. C. A. Ewald.

Wiener medizinische Blätter, September 13, 1900.

Centres of Projection and Association in the Human Brain. By Dr. Paul Flechsig.

Sexual Perversions.—Dr. Richard v. Krafft-Ebing says all acts of sexual perversion are those of degenerates. He divides them, as to their responsibility, into three classes: (1) acts committed by undeveloped beings, due to their intellectual or ethical deficiencies; (2) impulsive acts of degenerates with sexual hyperæsthesia, in which there is an overwhelming impulse in the absence, sometimes, of consciousness or volition—a psychic convulsion; (3) episodic, psychic outbursts in alcoholics, hysterical or epileptic persons, with absence or defect of memory. The courts, the author urges, should take cognizance of these conditions in dealing with perverts of this kind.

Significance of the Acoustic Speech Centre as Inhibitory of Speech Mechanism. By Dr. A. Pick.

Antiarthrin. By Dr. F. Schäfer.

September 20, 1900.

Treatment of Uterine Cancer.—M. L. G. Richelot says that both vaginal and abdominal hysterectomy have their proper sphere, but it is not always possible properly to select the cases. The main purpose of either operation is to anticipate the infiltration of neighboring tissues which is always secondary to the growth, and which, if the operation is a timely one, can always be achieved.

Diagnosis between Hysterical and Organic Hemiplegia.—Dr. W. Roth says that the group of symptoms which make up apoplexy speak in favor of organic disease. The focal symptoms, aphasia in all its forms, muscular hypotomy and paralyses and the deviation of the eyes, facial paralysis and paretic deviation of the tongue, are organic in their origin. In hysteria, the tongue makes capricious movements, the recession of the paralytic symptoms is also characteristic: the maximum is always followed by a period of less intensity. The increase in the tendon reflexes is coequal with the muscular tone. Increase of the ankle-clonus never appears in hysterical hemiplegia. Age, sex, mode of life, onset, and the condition of other organs, are important elements to consider.

Centres of Projection and Association. By Dr. C. von Monakow.

Deutsche Medizinal-Zeitung, September 10, 13 and 17, 1900.

Medico-legal Aspects of Injuries to the Head.—Dr. Karl Gumpertz says that mere contusions of the skin usually denote the use of dull weapons or instruments. The variety of weapon used may sometimes be detected, when the skin is thoroughly bruised, by imprints of the weapon. Very powerful force may leave the skin unharmed, as in a fall from a great height. Wounds produced by biting are usually easily distinguishable by the indentations made by the teeth. The point of entrance of a bullet is usually round if a small projectile was employed, star-shaped if one of larger calibre was used. When scars alone exist, one must remember that cicatrices, especially of the face, tend to become smaller. If the hairs are caught in a wound, it is likely that the wound was produced over a limited area only, and that the offending weapon was provided with angles.

When the skull is injured, a distinction between osseous bruises and fracture must be made. Sharp instruments produce linear wounds which may penetrate through the skull; the injury discloses the exact size of the weapon. In the parietal, nasal and orbital bones, comparatively slight force may produce deep cavities. The smaller the limits of the wound and the greater the force employed, the more clearly is the size of the offending weapon outlined. A fall from a great height frequently causes a fracture of the skull into four parts without producing any injury to the skin. Röntgen rays are to be employed in the living if a diagnosis is not easily made otherwise. In cleavage of the skull, foreign bodies may be found in the cavity of the skull or in the orbital or aural regions. The condition of the brain and its membranes may offer data as to the method of injury, but they are likely to be inaccurate and uncertain. The distinction between *post-mortem* injuries and those inflicted during life is often very difficult. Extensive ecchymoses, coagulated hæmatomata of the periosteum and the meninges, and bloody edges of the wound-surfaces, speak in favor of injuries during life. This distinction is even more difficult to draw in the case of new-born children, as in them large intrameningeal hæmorrhages may take place even after death. Numerous skin and bone lesions favor the view of infanticide. In any event, advanced putrefaction makes a positive opinion often impossible.

September 20, 1900.

Ætiology and Prophylaxis of Chronic Otitis Media.—Dr. L. Einis urges the spreading of public knowledge of the danger of purulent discharges from the ear, and the more detailed instruction of medical students in ear diseases. The author uses a solution of carbolic acid (strength not given) in a five- or ten-per-cent. glycerin solution as a prophylactic against chronic otitic disease. He douches the external canal with this from the moment that the drum shows signs of inflammation.

Monatsschrift für Geburtshilfe und Gynäkologie, September, 1900.

Operative Treatment of Uterine Cancer.—Dr. Dmitri von Ott, of St. Petersburg, says that the anatomy of the uterus and its vascular supply are powerful factors in the rapid spread of cancer of that organ. Surgical treatment is the only method that offers any hope of permanent cure. He favors total extirpation through the vagina. He does not believe in the removal of the retroperitoneal glands as a prophylactic against recurrence, for, very frequently, these glands show no traces of the disease even though more distant metastases exist. In the author's cases, twenty-nine per cent. have remained free from recurrence after the lapse of six years. All these cases were subjected to vaginal hysterectomy, ligatures only being employed. Clamps were used in a few selected cases.

Lack of Uniformity and Clearness in the Names Given to Fœtal Positions.—Dr. Arthur Mueller says that the causes which underlie this annoyance are: the use of useless terms, insufficient and dissimilar definitions of the words "presentation," "position" and "state," the use of the same words for the different notions "cephalic," "position," "presentation" and "normal." The author offers suggestions for simplification of the nomenclature.

Complication of Pregnancy and Parturition by Myomata.—Dr. Nicolai Pobedinsky reports a case in which a large fibroid tumor blocked the pelvic inlet during birth, and required Cæsarean section, which resulted happily for mother and child. The author, reviewing the literature, says that inoffensive fibroid masses do not always demand surgical intervention during pregnancy. During parturition, however, if the tumor offers resistance to birth and cannot be pushed out of the pelvis with the patient in narcosis, the Cæsarean section presents the most favorable chances for mother and child.

Uretero-cysto-neotomy.—Dr. Ludwig Pernice reviews all the cases of secondary uretero-cystotomy and narrates at length a case of his own. The feature of his paper is the emphasis he lays upon determining with certainty before operation which ureter is the injured one. Cystoscopy is often necessary for this purpose. He condemns Winckel's recommendation of extirpation of the kidney for the relief of ureteral injury or fistulæ. The author favors the extra-peritoneal route and believes it to be the operation of the future.

Abdominal Uretero-cysto-anastomosis. By Dr. S. Gottschalk.

Treatment of Rupture of the Uterus.—Dr. H. Schmit gives the histories of nineteen cases of rupture of the uterus. The mortality, when drainage alone was employed, in cases of incomplete rupture was 28.5 per cent., while those which were operated upon showed a mortality of 44.4 per cent. The death rate when the uterus was completely ruptured was naturally much higher, but when drainage and tamponnade were employed, it was lower than in the cases operated on. The author points out that, so far as possible, operative measures should be reserved only for cases in which very extensive tears or severe hæmorrhage demand it, as drainage and tamponnade seem to be equally efficacious and certainly present a lower mortality.

Chorea and Leucæmia as Indications for Inducing Premature Labor. By Dr. J. Merltens.

A Case of Puerperal Tetanus. By Dr. L. Siebourg.

A Case of Teratoma of the Ovary with Teratoid Metastases. By Dr. Otto Falk.

Riforma medica, September 11, 12, 13, and 14, 1900.

Concerning Peritonitis Due to the Propagation of Infection from the Intestine in the Course of Typhoid Fever. By Dr. Cesare Mannini.—The author's conclusions are as follows: There may occur, in the course of an attack of typhoid fever during the resolution of the process, an acute peritonitis which is not due to perforation. This peritonitis is due to the diffusion of the pathogenic germs of the disease through the walls of the intestines. The peritonitis, however, only develops when the peritonæum has lost its defensive qualities, its physiologic resistance. The symptoms of peritonitis due to propagation of the infection are the same as those of perforation, but these conditions can be distinguished by the presence or absence of gases in the peritoneal cavity. The prognosis of peritoneal infection secondary to typhoid fever without perforation is better than that of perforation, and the treatment of the former condition should be chiefly medical.

Vratch, September 2, 1900 (September 14, N. S.).

The Establishment of a Clinic in Connection with the Chair of Bandaging and Orthopædic Surgery at the Military Medical Academy (St. Petersburg). By Dr. G. I. Turner.—A historical sketch of the development of bandaging, minor surgery and orthopædics and a description of the new clinic.

Concerning the Treatment of Lateral Deformities of the Lower Extremities by Osteotomy. By Dr. B. K. Finkelstein.—The writer reports the histories of nine patients in whom he performed osteotomy according to Macewen's method with favorable results. In all these cases the wound healed by first intention. In one case there was a refracture after the operation, the splint having been removed six weeks after the osteotomy when there was a firm callus. The possibility of this complication must always be borne in mind, and the patient must not be allowed to walk about without splints before the seventh or eighth week. In all cases the deformity was very marked and correction by apparatus was out of the question. The calluses were of normal size and there was no paralysis from the involvement of a nerve in the osseous growth in any of the cases. The writer does not favor the cuneiform osteotomies, as these are more complicated and give no better results than Macewen's. He admits that the genu valgum may recur in some cases, especially in those patients who are obliged to resume their former occupation which involves standing for many hours throughout the day. In speaking of the after-treatment, he says that some surgeons favor a plaster of Paris bandage instead of Macewen's splint. Massage and baths should be used after the splint has been removed, in order to reduce the stiffness of the knee which results from the prolonged immobilization.

A New Vaginal Thermo-hydro-electrode. By Dr. V. A. Strokine.—The writer says that the electrodes of Alexandroff, of Warsaw, and of Margaret A. Cleaves, of New York, are complex in their construction and difficult to sterilize, and therefore, in his opinion, but little applicable in practice. His own appliance is termed a thermo-hydro-electrode. It consists of a glass tube for continuous irrigation as devised by Morozoff. Between the glass arms which serve for the attachment of the inflow and outflow tubes there are openings which admit two carbon cylinders into the lumen of the irrigating tube. One of these carbons ends free in the irrigating tube, the other is connected with a metallic ring placed over the glass tube a few inches below the end, which is provided with the usual openings for irrigation. This last carbon serves as the second pole in the bipolar method of electrization. The apparatus may be taken apart for cleaning; and for sterilizing, it can be boiled. The electrode is connected by means of rubber tubing with an irrigator and with a vessel for the outflow, and by means of wires leading to the ends of the carbons with an electric battery. The three therapeutic factors that are brought into play in its use are heat, water, and electricity.

Concerning the Symptoms and Treatment of Cancer of the Œsophagus. By Dr. Albu (of Berlin).—The author believes that cancer of the œsophagus is met with more and more frequently, and that in frequency it surpasses carcinoma of the stomach. Cancer of the œsophagus, however, is much more often noticed because its symptoms are more characteristic and its diagnosis less difficult. This is especially the case when there are symptoms of œsophageal stenosis and inability to swallow solid food. The differential diagnosis of cancerous from other types of œsophageal stenosis, is only important from the point of view of prognosis. The diagnosis between spasmodic and organic stenosis depends upon the presence or absence of neurasthenia or hysteria; the inconstancy of the stenosis, so that the sound sometimes meets resistance, sometimes passes freely; and the further course of the disease.

The diagnosis becomes more difficult when, as some authors state, the cancerous process is complicated by a spasmodic contraction of the œsophagus. There are cases in which the cancer of the œsophagus does not give any symptoms of stenosis, but the patient dies of secondary metastases. Such cases may be explained anatomically by the fact that the growth does not surround the entire circumference of the œsophagus, but leaves a portion of it free and distensible, or the growth may exist in the form of flat plaques in the œsophageal wall. These conditions are often present at the beginning of the disease, but they are also found in advanced cases. The author speaks of intercostal neuralgia as a symptom of cancer of the œsophagus which is not mentioned in the text-books. This is due to the pressure of the growth on the roots of the spinal nerves as they emerge along the vertebral column. In speaking of the treatment, the writer says that artificial dilatation of the stenosis by means of sounds may facilitate the passage of food, but it does so at a great sacrifice —the irritation of the tumor induced by such procedures will hasten ulceration, and thus stimulate the growth of the neoplasm. The best plan is to leave such patients at rest, to relieve their suffering by morphine, and to feed them on concentrated liquid diet. Patients may live a year or two under such treatment, and sometimes even longer. The use of the sound is indicated only when the liquid food no longer passes into the stomach. When this stage has been reached there is but little hope, and even if we succeed in reestablishing the lumen of the œsophagus, the benefit is only temporary at best. We may keep the patient alive for several weeks by rectal feeding. As a last resort, gastrotomy may be performed, and the patient fed through the fistula. The author does not favor the introduction of permanent tubes into the œsophagus. He recommends frequent lavage instead of the use of the sound, for, by washing, particles of food may be removed from the stenosed gullet and thus the lumen may be reestablished.

Miscellaneous.

Pokeroot Poisoning.—Cecil French, D. V. S. (*National Medical Review,* August), describes his personal experience of poisoning by *Phytolacca decandra* (pokeweed, pokeroot, poke, garget, inkberry, pigeon-berry) as follows: He says that on April 15th he picked what he supposed to be horseradish in his garden. It was served at the dinner table at 1 p. m. Owing to the presence of other food in his mouth he did not recognize for a moment or two the exceedingly bitter and burning taste which it imparted, and probably swallowed about as much as would fill a thimble. As soon as he discovered the mistake, however, he promptly emptied his mouth of its contents and warned the rest of the company present not to partake of it, suspecting that something was not quite right. After dinner he went out driving. About 2.30 o'clock he remarked that his throat was quite sore and he was in a condition of general lassitude. He examined his throat with the aid of a looking glass and noticed that the pharynx was considerably injected. The sensation in that region was dry and burning. Soon, yawning became incessant, vision appeared defective, a dry, hacking cough and salivation were noticeable and the general dull feeling was more pronounced. A decidedly "warm" sensation was also perceptible in the gastric region. A few minutes later he was seized with violent stomach cramps accompanied by retching and vomiting. The burning sensation now extended from the mouth to the stomach, and respiration became somewhat labored. Five or six recurrences of these vomiting spells with intervals of some five or ten minutes' relief did not prevent him from continuing the drive, although his general feelings were those of mental and physical distress and the gastric pain was increasing. At about 3.15 o'clock it became impossible to proceed any further as the vomiting and gastralgia had become very violent and exhausting, and vertigo with almost complete loss of vision had developed. The latter condition only lasted a short while. He was by this time unable to stand or even sit, but found great relief in the recumbent position. Other symptoms noticeable were: convulsive tremors and prickly sensations all over the surface of the body, the latter particularly noticeable in the palms of the hands, the insides of the arms, and the soles of the feet; great coldness followed by clammy perspiration; profuse salivation; sense of suffocation; and dull aching in the lumbar region. An attempt to swallow alcoholic stimulants caused pharyngeal pain and instant vomiting on this occasion of slightly blood-stained mucus.

The physician who saw Dr. French about 3.30 p. m. found him at this time in a state of extreme prostration; the pulse was weak, the respiration slow and labored. The skin was cold and bathed in clammy perspiration. The pupils were contracted. He was retching violently and bringing up small quantities of mucus stained with blood. As he had vomited freely, no emetic was given, but half a grain of morphine sulphate, with one-fiftieth of a grain of atropine, was administered subcutaneously. In a few minutes great relief followed, the pulse became stronger and the respirations stronger and less labored. Dr. French was taken to the Georgetown University Hospital, where hot coffee and half an ounce of whiskey and water were administered. In about two hours he was able to return home, though vomiting recurred almost hourly till next morning at 2 a. m., when an ounce of brandy, diluted, settled the stomach. There was some diarrhœa and the bitter taste of the root remained for forty-eight hours. Dr. French recommends the following treatment from personal experience in pokeroot poisoning: "Secure absolute repose and warmth of the patient. Movement of any kind tends to bring on a fit of retching. Administer morphine hypodermically to annul the abdominal cramps and to regulate the heart's action. Follow this up with hypodermic injections of stimulants. Give nothing *per os,* excepting anti-emetics, until the patient feels that it can be retained."

The Duty of an Intervening Practitioner in a Case of Criminal Abortion.—Dr. Walter R. Lincoln (*Cleveland Journal of Medicine,* August), in Some Observations on Abortion, says: "Several medico-legal points, in dealing with cases of *criminal* abortion, have often occurred to me. I may perhaps best state these in the form of suppositious cases. Suppose a case in which criminal abortion has been performed by a third known or unknown person. The woman subsequently comes to our care in a condition threatening life, whether from sepsis or hæmorrhage is immaterial. Apart from attempting to save the woman's life by appropriate measures, have we other duties to perform in such a case? Are we *compelled* by law to report such case to the police authorities? We *may* do so if the woman gives her consent, but suppose that she not only does not give her consent but forbids one reporting her as the subject of a criminal abortion. It is a question whether we are allowed to divulge our knowledge. In conversation with a member of the Cleveland Bar, I stated this case to him and he was of the opinion that the physician could not divulge his knowledge, saying that the law held that such information or knowledge came under the head of 'privileged communications,' and could not be disclosed. Further, he thought that even in the case of the woman's death the information might not be disclosable by the doctor."

Extraordinary Toxic Effect of Quinine.—Dr. Franklin W. Bock (*Merck's Archives,* August) records the case of a major in the United States Army, recently returned from the Philippines, to whom quinine was prescribed in five one-grain pills, one to be taken every hour, in spite of the patient's assertion "that he couldn't stand quinine at all." In three hours, quinism was marked. Grippal pains subsequently set in, and facial erythema of erysipelatous character, signs of physical collapse, and mental delirium followed. The effects of this small dose appear to have lasted about four weeks. On several occasions previously, toxic symptoms had followed the attempt to administer quinine to this patient.

The Relation of the Nervous System to Phthisis.—Dr. Thomas J. Mays (*St. Louis Medical Review,* July 7th) says that probably the most convincing proof that the nervous system plays such a large part in the causation of pulmonary phthisis, is to be found in the fact that all the medical treatment which has been shown to be most available in combating this disease, has been that which is directed towards strengthening the nervous system. In fact all the remedies that have become renowned in the treatment of consumption have also been used successfully in the treatment of diseases of the nervous systems. Systematic rest, which is now universally recognized by the profession as a most important element in the cure of consumption, has been found equally efficient in the relief of nervous elements. Cod-liver oil, nourishing food, the hypophosphites, and electricity are highly vaunted measures in the mitigation of both diseases. Of all the drugs in general use there is none in greater favor for the alleviation of pulmonary consumption than strychnine. And it is a well-known fact, too, that this agent has an exclusive action on the whole nervous system, while at the same time it possesses a special stimulating influence on the pneumogastric nerves.

In further confirmation of this idea, he considers it of interest to note that, in accordance with his belief that the essential trouble in pulmonary consumption resides in the nervous system, he has during the last year resorted to the hypodermic injection of a conservative counter-stimulant over the pneumogastric nerves in the neck, and, he believes, with great benefit. These injections were undertaken in the first place for the sole purpose of relieving the cough and expectoration of these patients. They fulfilled this end very satisfactorily, and moreover it was found that they promoted sleep, bettered the appetite, increased the general strength, and improved the weight. Their very best effects were found in incipient cases.

The Epidemiology of Malaria.—Celli and Delpino (*Centralblatt für Bakteriologie,* March 10th; *Albany Medical Annals,* September) discuss the relation of malaria outbreaks to the life history of the anopheles, which they believe to be the carrier of the infection. They show that practically all cases of malaria occurring during the winter or early spring months are relapses of the disease in people who have been previously infected. On the other hand, new cases do not appear until the third quarter of the year, during the time that the anopheles is in its prime. An apparent exception to this rule, viz.: that quartan cases may appear very late in the year, *i. e.,* late in December, or even in the following January, they explain on the ground of the exceedingly long incubation period of this form of fever. They assert that it has been shown experimentally to have an incubation period of from forty-seven to sixty-six days. Tables are given to illustrate these different points.

Proceedings of Societies.

AMERICAN LARYNGOLOGICAL, RHINOLOGICAL AND OTOLOGICAL SOCIETY.

Sixth Annual Meeting, Held in Philadelphia on May 31 and June 1 and 2, 1900.

The President, Dr. D. BRADEN KYLE, of Philadelphia, in the Chair.

(*Concluded from page 612.*)

Two Operative Cases of Lateral-Sinus Disease of Otitic Origin, with Jugular Ligation.—Dr. OTTO

Joachim, of New Orleans, read this paper. The first patient was a man, twenty-four years of age, who had been admitted into the hospital on October 10th. Both ears had given more or less trouble since childhood. The present illness had begun with pain in the head, especially on the right side, malaise, fever, and a chill. He was extremely restless, answered questions slowly, and talked at random. There were tenderness over the antrum and a purulent discharge from the ear on the right side. The diagnosis was pyæmia of otitic origin. The operation was done on October 12th, and the lateral sinus was laid bare freely. The internal jugular was ligated before its division. Both the vein and the sinus were found to be purulent. The operation was very extensive, but the patient survived the immediate shock. The temperature continued between 101° and 104° F., reaching 106° F. on the third day, while the pulse was between 88 and 100. The wounds were opened on the third day, and the lower one was found distended with pus. Cleansing the parts did not control the pyæmia. On the sixth day a thorough search was made for the pyæmic focus, but without success, and the man died on October 24th. At the autopsy numerous metastatic abscesses were found in the lungs, and the right lung showed a pneumonic process. The right lateral sinus was found to be the seat of thrombosis, and a few drops of pus were discovered in the sigmoid sinus. There were extensive pockets of pus in the deeper layers of the neck.

The second patient was a lad of nineteen years, who had had trouble with the right ear since 1889, marked by earache and periodical discharges of pus. The present illness had begun with fever and swelling behind the ear four days previously, and he had had a chill two days before coming under observation. The temperature was 102° F. and the pulse 120. There was no special tenderness of the mastoid, and the external auditory canal contained but little serous discharge, having no particular odor. Shortly after his admission the boy had a severe chill and the temperature rose to 104° F. The next day the temperature was 102° F., and the swelling seemed to be somewhat larger. He was operated upon at this time in the usual way. The sigmoid sinus was exposed and opened throughout its entire length, and a solid coagulum removed. The internal jugular was ligated. On the fifth day the dressings were changed for the first time. The general condition of the patient was satisfactory. The upper wound was dry, but had a peculiar odor. The author said that statistics showed a greater preponderance of recoveries in cases in which the jugular had been ligated. It was worthy of note that complete facial paralysis occurred in spite of precautions to prevent it.

Dr. Richardson said that the danger in these cases was not so much from the formation of a thrombus in the sigmoid sinus as from that thrombus lying there day after day until pyæmia developed. When there were fever and chill, the harm had been done, yet, unfortunately, this was often the first positive evidence of the existence of a septic thrombosis. He had had under his observation a case from the very start, yet the septic thrombus had formed without any symptoms showing before the chill. The day before this symptom appeared the patient had an almost normal temperature, and seemed to be better than before. The statement had been made that elevation of temperature after the subsidence of the other symptoms, and in the absence of retention of pus, should lead one to suspect septic thrombosis. In his opinion, ligation of the internal jugular was the course to pursue in all these cases. It did not add to the gravity of the case, and prevented the septic infection from becoming more general.

Dr. N. H. Pierce said that his experience had led him to believe that the most important symptoms in sinus thrombosis were chill and sudden rise of temperature, or sudden fluctuations of temperature. However, within the past month, an otitis media had developed in a young girl after influenza, and just as she was recovering from this an exposure to cold caused a return of pain in the ear and a mucoserous discharge. After a few days she had a series of slight chills, and the temperature suddenly rose from 100° to 105° F. Two other consultants agreed with him in the diagnosis of septic thrombosis. The next morning the temperature had fallen to 103° F., and from purely friendly and sentimental reasons he postponed operation. In another day she had the usual evidences of erysipelas about the ear, which explained the chills and temperature, and made a satisfactory recovery.

Dr. N. L. Wilson said that he had seen last winter a case in which pyæmia manifested in the joints, the heart, the lungs, and the brain had been present, and yet the patient had recovered. The case had been under the care of Dr. Toeplitz.

Dr. Joachim said that undoubtedly a continued high temperature in these cases was very indicative of infection of some of the sinuses, yet it did not apply to children, for in them there might be a very high temperature without any sinus thrombosis. In the adult the tendency to fever was not great. Of the metastatic affections, the most favorable were those of the joints and the muscles. In some cases recovery had taken place without the jugular vein being tied, though the lungs had shown metastases. It was, however, the part of prudence to tie the jugular.

A Palate Retractor.—Dr. Joseph A. White, of Richmond, Va., exhibited his palate retractor, and explained the proper method of using it. He also exhibited a convenient handle that he had devised for use with the cold snare, with the hot snare, and for various other purposes, and his electric saw, a direct-acting instrument which would not stop even though pressure was made. Improved scissors and a self-retaining tongue depressor were also exhibited.

A Peculiar Enlargement of the Turbinals.—Dr. C. P. Linhart, of Columbus, Ohio, reported the case of a man of forty-five years having a large tumor involving the anterior turbinate and completely occluding the nostril. Two other surgeons had seen the growth and had made a diagnosis of sarcoma. Dr. A. B. Duel, of New York, had doubted the diagnosis, and submitted a large section of the growth to Dr. Jonathan Wright, who reported the growth to be a granuloma. Dr. Duel then removed the whole of the inferior and part of middle turbinate, and sent the man back to Dr. Linhart. The wound had not healed well. There was no history of syphilis, but potassium iodide was given in increasing doses, and under this treatment the improvement was most rapid, so that within three weeks the nasal trouble had practically disappeared. At present the man was practically well.

A Brief Report of a Case of Tic Douloureux.—Dr. F. H. Koyle, of Hornellsville, N. Y., said that on June 1, 1897, a woman of forty-eight years had come to him, saying she had had frequent pain in the right side of the face for fifteen years. In 1896, on different occasions, the first bicuspid, the second bicuspid, and the canine teeth were removed, and after each extraction there was only temporary relief. There was an enormous exostosis on the right side of the nose. On transillumination, the right antrum remained dark. An opening was made through the canine fossa, but with a negative result. The patient refused to have the exostosis removed. Recalling the fact that there had been hydrorrhœa, sometimes from one side of the nose and at other times from the other side, he was led to suspect a reflex neurosis of ocular origin. Examination of the eyes showed myopic astigmatism and muscular insufficiencies, hyperphoria and esophoria. Her eyes were fitted with glasses and systematic exercises for the weak eye muscles were prescribed. The improvement in the muscular balance was marked, and with this there was diminution in the neuralgic pain. Eventually the muscular balance was effected, and then the patient was freed from her longstanding pain. The ciliary ganglion was the connecting link between the third and fifth nerves, and it was through this ganglion that an irritation in the third nerve had been communicated to the fifth nerve, and had given rise to the neuralgia.

Dr. Lester asked what the condition of the pupils was, and also if in giving the exercise, attention had been paid to the heterophoria.

Dr. Koyle replied that both pupils were apparently normal. In the exercises he had given attention first to the hyperphoria.

The Glandular Complications of Acute Follicular and Acute Suppurative Amygdalitis when Accompanied with Influenza.—Dr. Wendell C. Phillips, of New York, read this paper in abstract. He said that during the past spring follicular and tonsillar affections had been specially frequent at the time of the prevalence of influenza. In his own cases the deeper glandular structures had been involved, and the inflammation had been very severe. All the patients had had influenza, and nearly all had previously had follicular amygdalitis. The history was usually that of influenza with follicular amygdalitis, pain in the neck, extensive swelling, and rise of temperature. In about half the cases suppuration had occurred and had required an operation. In two cases it had been necessary to dissect out the entire gland. Adults seemed to be more frequently affected than children, but age and sex exerted no influence on the result. Examination of the pus in one case showed numerous long streptococci. No doubt the infection had reached the glands through the lymphatics.

Dr. N. L. Wilson said that he had seen several such cases, involving not only the glands, but the sinuses also. They had been especially prevalent this winter following influenza.

Dr. R. C. Myles said that this also had been his experience. Apparently it was the result of the attenuated poison of influenza. For some reason this special infection had seemed to penetrate very quickly into the deep lymphatics.

Dr. C. W. Richardson said that he had seen only one case of this kind during the past winter, although he had seen an unusually large number of cases of follicular amygdalitis. The infection in Washington had been milder than in previous years.

Dr. Price Brown had met with more throat trouble in Toronto the past winter in connection with influenza than usual, but cases of suppuration had been no more frequent, although glandular enlargement had been very common.

Dr. Joachim said that in his part of the country amygdalitis had been much more prevalent during the past winter than usual, yet he had not met with any unusual degree of involvement of the deep cervical lymphatic glands. However, other complications, such as acute otitis media, had been remarkably prevalent.

Dr. W. H. Daly, of Pittsburgh, asked if there had been any deposit on the tonsils, either fibrinous or diphtheritic.

Dr. Phillips replied in the negative.

Dr. Daly said that the cases that he had seen had been complicated rather with rheumatic conditions. Generous amounts of compound solution of iodine, both internally and locally, had given him the best results. The underlying condition seemed to him rather rheumatic than due to influenza, which was credited with doing more harm than was really the case.

Dr. J. A. Stucky, of Lexington, Ky., said that there had been an epidemic of this follicular trouble in Kentucky. He had not been able to ascribe it to influenza. Antirrheumatic remedies had given good results.

Dr. S. Mac Cuen Smith, of Philadelphia, said that there had seemed to be a rheumatic element in most of the cases that he had seen, and in addition to the follicular condition there had been some extension to the larynx. His cases had done best under antirrheumatic treatment.

Dr. L. C. Cline said that he had observed an unusual number of cases of follicular affection in his part of the country, and an unusual proportion of them had been suppurative. Many of his patients had improved promptly under the use of sodium salicylate, together with local treatment with guaiacol of full strength.

Dr. Joseph S. Gibb said that he had seen a number of cases of amygdalitis of the follicular form in Philadelphia, but none in which the deep glands had been involved. He had also seen a number of cases in which the sinuses had been involved.

Dr. Phillips said that his treatment had consisted in an initial dose of calomel, followed by salol or sodium bicarbonate, with enough phenacetine to control the pain.

Letters to the Editor.

AN ANTITUBERCLE SCREEN.

Horne Office Building,
Pittsburg, Pa., *October 3, 1900.*

To the Editor of the New York Medical Journal.

Sir: As an antitubercle screen I have used a device of this kind for ten or twelve years: Simply a thin sheet of polished plate glass, with two holes drilled in two corners of it, for strong cords, then two small brass pulleys fastened to the ceiling above, two small round bags, neatly made, containing shot to balance the weight of the glass. This is out of the way always when you want it out of the way, and in proper position in front of the face when you pull it there. It is much more convenient and desirable, according to my way of thinking, than the device shown in the *Journal* of September 22d.

Andrew T. Veeder, M. D.

The Diagnosis between Malarial and Quinine Hæmoglobinuria.—Dr. Samuel E. Milliken (*Virginia Medical Semi-Monthly,* August 24th) quotes Mousseos as saying in the *Grèce médicale* that during the early stage of hæmoglobinuria if there is cyanosis under the nails and in the face, lips, nose, and ears, the trouble is due to quinine in eighty per cent. of the cases. This condition may also appear with malarial hæmoglobinuria, but it vanishes with the chill, while in quinine hæmoglobinuria it lasts for several hours after the chill.

Book Notices.

Lectures on Clinical Medicine delivered in the Glasgow Infirmary. By John Lindsay Steven, M. D., Lecturer on the Practice of Medicine, Queen Margaret College, University of Glasgow, etc. With Thirty-seven Illustrations. Glasgow: Alexander Macdougall, 1900. Pp. viii-195.

The author has collected in this volume a number of clinical lectures delivered at the Glasgow Royal Infirmary. Among the unusual conditions which formed the subject of a lecture are Landry's paralysis, with a report of an autopsy, a mediastinal tumor, with a post-mortem record, a case of hypertrophic pulmonary osteoarthropathy, and a most interesting case of scleroderma which led to hemiatrophy of the face, body, and extremities. The lectures are charmingly written and form an interesting and instructive contribution to medical literature.

Atlas and Epitome of Gynæcology. By Dr. Oskar Schæffer, Privatdocent of Obstetrics and Gynæcology in the University of Heidelberg. Authorized Translation from the Second Revised and Enlarged German Edition. Edited by Richard C. Norris, A. M., M. D., Consulting Gynæcologist to the Southeastern Dispensary and Hospital for Women and Children, etc. With 207 Colored Illustrations on 90 Plates, and 62 Illustrations in the Text. Philadelphia: W. B. Saunders & Company, 1900. Pp. 3 to 272. [Price, $3.50.]

In its original language Schæffer's Atlas was one of the most successful of the series of which it is an element, and there is no reason why it should not be equally popular in the English language. The subject lends itself especially well to illustration and to diagram, and those in this volume are, in the main, particularly well executed and therefore of great didactic value. The accompanying text is lucid and modern, and the book forms an unusually good text-book of gynæcology. The translator's work is above reproach.

Atlas and Epitome of Diseases Caused by Accidents. By Dr. Ed. Golebiewski, of Berlin. Authorized Translation from the German, with Editorial Notes and Additions by Pearce Bailey, M. D., Consulting Neurologist to St. Luke's Hospital and the Orthopædic Hospital, etc. With 40 Colored Plates, and 143 Illustrations in Black. Philadelphia: W. B. Saunders & Company, 1900. Pp. 11 to 549. [Price, $4.]

This volume appeals not only to the medical student and the practitioner, but to the medico-legal specialist and accident insurance companies also. The work is divided into two parts, the former treating of the results of injuries in general, the latter of the sequels of injuries affecting special regions and structures. Each injury—or rather its pathological sequel—is represented by one or more colored plates drawn from life. The subject is one in which literature is rather deficient, and this little book should therefore find an open field. The illustrations are especially good and well chosen, and the translation of the accompanying text is excellent.

Grundriss der orthopädischen Chirurgie. Für praktische Aerzte und Studirende. Von Dr. Max David, Specialarzt für orthopädische Chirurgie, in Berlin, etc. Mit 129 Abbildungen. Berlin: S. Karger, 1900. Pp. 212.

This text-book of the elements of orthopædic surgery is devoted to an exposition of Wolff's well-known and now quite widely accepted theory as to the causation of deformities, "transformation" of bone. Aside from muscular pressure and muscular tension, Wolff believes that deformities arise from changes in the bones of the affected areas, not only in their external form, but in their internal construction as well. This, briefly stated, is the position he has taken, and his treatment is, of course, intended to secure the reverse conditions. Therefore his methods are purely those of apparatuses applied to secure conditions in the bones opposite to those which obtain in a given deformity. By continuous pressure and the use of function, he obtains a change in the internal structure of the bone and in its external form; and he strives to make this reach the normal as far as possible. Many other elements enter into the scheme, but this, in the main, is his working theory.

The volume before us is a clear exposition of this theory of orthopædics, and is profusely illustrated to bring out the various points in the treatment of deformities.

Die Heilfactoren Bad Nauheims. Festschrift zur Einweihung des am 7. März 1900 zu Tage getretenen kohlensäurereichen Thermal-Soolsprudels. Quelle No. XVI. Von Prof. Dr. Schott, Bad Nauheim. Wiesbaden: J. F. Bergmann, 1900. Pp. 58.

This little monograph of Professor Schott's is devoted mainly to a consideration of the chemical constituents of the various springs and baths at Nauheim, together with their application to disease. The excellent results achieved at this resort in the treatment of cardiac and nervous disease are also dwelt upon.

BOOKS, ETC., RECEIVED.

A Dictionary of Medical Science: Containing a Full Explanation of the Various Subjects and Terms of Anatomy, Physiology, Medical Chemistry, Pharmacy, Pharmacology, Therapeutics, Medicine, Hygiene, Dietetics, Pathology, Bacteriology, Surgery, Ophthalmology, Otology, Laryngology, Dermatology, Gynæcology, Obstetrics, Pædiatrics, Medical Jurisprudence, Dentistry, Veterinary Science, etc. By Robley Dunglison, M. D., LL. D., Late Professor of Institutes of Medicine and Medical Jurisprudence in the Jefferson Medical College of Philadelphia, etc. Twenty-second Edition, with Appendix, thoroughly Revised and greatly Enlarged, and with the Pronunciation, Accentuation, and Derivation of the Terms, by Richard J. Dunglison, A. M., M. D. Philadelphia and New York: Lea Brothers & Company, 1900. Pp. xi-1376.

A Short Practice of Gynæcology. By Henry Jellett, B. A., M. D., B. Ch., B. A. O. (Dublin University), F. R. C. P. I., L. M., University Examiner in Midwifery and Gynæcology, Dublin University, etc. With 125 Illustrations. London: J. & A. Churchill. Philadelphia: P. Blakiston's Son & Company, 1900. Pp. xiii-436. [Price, $2.63.]

Hygiène et morale. Étude dédiée aux jeunes gens par le Docteur Paul Good, Ancien médecin de la Marine, etc. Ouvrage édité par la ligue de la moralité publique. Sixième mille. Saint-Etienne: Bureaux du Relèvement Social, 1900. Pp. 62.

Die Krankheiten der warmen Länder. Ein Handbuch für Aerzte. Von Dr. B. Scheube, fürstl. Physikus und Sanitätsrath in Greiz, etc. Zweite umgearbeitete Auflage. Mit 5 geogr. Karten, 7 Tafeln und 39 Abbildungen im Text. Jena: Gustav Fischer, 1900. Pp. viii-661.

Atlas der topographischen Anatomie des Menschen. Für Studirende und Aerzte. Von Dr. Karl von Bardeleben, Professor an der Universität Jena, und Prof. Dr. Heinrich Haeckel, Chefarzt des Krankenhauses Bethanien in Stettin. Zweite völlig umgearbeitete und vermehrte Auflage. Enthaltend 176 grösstentheils mehrfarbige Holzschnitte, 1 lithogr. Doppeltafel und erläuternden Text. Herausgegeben unter Mitwirkung von Dr. Fritz Frohse, Volontärassistant an der anatomischen Anstalt in Berlin. Mit Beiträge von Prof. Dr. Theodor Ziehen. Fünftes bis siebentes Tausend. Jena: Gustav Fischer, 1900.

Kurzgefasstes Lehrbuch der Kinderheilkunde. Für Aerzte und Studirende. Von Dr. Carl Seitz, A. O. Universitätsprofessor und Vorstand der Kinderpoliklinik am Reisingerianum in München. Zweite vermehrte und völlig umgearbeitete Auflage. Berlin: S. Karger, 1900. Pp. viii-499.

Anleitung zur Diagnose und Therapie der Kehlkopf-, Nasen- und Ohrenkrankheiten. Vorlesungen gehalten in Fortbildungscursen für praktische Aerzte. Von Dr. Richard Kayser, in Breslau. Mit 121 Abbildungen. Berlin: S. Karger, 1900. Pp. 169.

Transactions of the Louisiana State Medical Society, at its Twenty-first Annual Session, held in New Orleans, April 19, 20, and 21, 1900.

Transactions of the Ophthalmic Division of the Western Ophthalmologic and Otolaryngological Association, at its Fifth Annual Session, held in St. Louis, April 5, 6, and 7, 1900.

Submucous Ligature for Rectal Hæmorrhoids and Prolapse. By B. Merrill Ricketts, M. D., of Cincinnati. (Reprinted from the *Medical Review of Reviews.*)

Miscellany.

Medical Appointments, etc.—Dr. J. C. Byrnes has succeeded Dr. James A. Hawke as surgeon of the navy yard at Brooklyn.—Dr. John Arthur Luetscher, class of '99, and interne last year at the Johns Hopkins Hospital, Baltimore, has been appointed resident physician at the Boston City Hospital.—Dr. George F. Barker has resigned the post of professor of physics at the University of Pennsylvania. Dr. Barker is a doctor of medicine of Albany College.—Dr. A. G. Wright, of Cleveland Medical College, joined the staff of Grace Hospital, Detroit, on October 1st.—Dr. H. G. Bevington, the retiring house physician of Grace Hospital, Detroit, was recently presented by the nurses and other *attachés* of that institution with a case of surgical instruments.

At the Medical Schools.—The 1st of October saw the opening of the medical schools once more. At the departments of medicine and dentistry of the University of Pennsylvania, Provost Harrison delivered an address to the alumni, in which he made reference to the death of the late Professor Stillé. In the course of his address he stated that a careful study of statistics showed that, speaking generally, those physicians and dentists were the most successful ones who had received the best preliminary education.

"We cannot," he said, "afford to treat a medical education from a commercial standpoint." The result of the raising of the entrance requirements at this school has been that over one-half of the applicants for admission had failed to pass the standard. A radical change will be made in the system of instruction which has been in vogue there for many years past.

For the past four years anatomy and physiology have been taught in the first and second year of the course, and the first-year men have been examined in both branches at the end of the year. Under the new plan the original plan of teaching will be restored, whereby anatomy alone will be taught the first year and physiology the second year.

Last year's freshmen classes, which took up the study of both subjects, will continue their work on the old plan, but the incoming class will take up the subject of anatomy and leave physiology for the second year. By thus restoring the original plan of instruction the university places itself as the only Eastern college to run this system.

The subject of materia medica, which heretofore had been taught in the first year, will be given in the second year. This is done in order to bring the subject closer to the study of therapeutics, which is given in the third year.

A course in pathology is to be added to the curriculum of the dental department, if possible. In this event bacteriology, at present a third-year subject, will be given in the second year.

At the Medico-Chirurgical College in Philadelphia the ceremonies were presided over by Professor J. V. Shoemaker, who delivered an address on The Relation of the Mosquito to Malarial Fever. The attendance appeared to be unusually large. At Jefferson Medical College, Philadelphia, over seven hundred students assembled. In a brief preliminary speech by William Potter, president of the board of trustees, reference was made to the election of Professor W. W. Keen to the honorary fellowship of the Royal College of Surgeons of England. Professor Dercum delivered the usual address, dealing with the high calling and responsibilities of the physician.

At the Medical College of Virginia Dr. Enmon G. Williams has been appointed professor of histology, pathology and bacteriology in place of Dr. Ernest C. Levy, resigned. The matriculations were some twenty-five per cent. greater than ever before. At the University of Virginia, also, there was a large increase in matriculations, over 300 matriculating on the first day. The following changes in the titles of the faculty have taken place: Dr. Hugh Taylor, from professor of practice of surgery to practice of surgery and practice of clinics of surgery; Dr. Stuart McGuire, from professor of principles of surgery to principles of surgery and clinical surgery; Dr. L. B. Edwards, from practice of medicine to practice of clinical medicine; Dr. W. S. Gorden, from professor of physiology to practice of medicine; Dr. Virginius Harrison, from lecturer on practice of surgery to professor of materia medica and therapeutics; Dr. H. S. MacLean, from professor of physiology to lecturer on bacteriology; Dr. C. L. Steel, from professor of practice of dentistry to emeritus professor of dentistry; Dr. L. M. Cowardin, from professor of oral surgery and clinical dentistry to professor of dental surgery and clinical dentistry; Dr. Charles R. Turner, from demonstrator of dental surgery to professor of practice of dentistry and orthodontia; Dr. W. E. Walker, from professor of dental surgery to professor of dental pathology, therapeutics and pharmacology; Dr. George E. Barksdale, from acting professor of botany and materia medica to professor of the same; Dr. R. W. Miller, from lecturer on pharmacy to professor of pharmaceutical chemistry.

At Johns Hopkins University, Baltimore, Dr. Basil

Gildersleeve and Dr. Ira Remsen, acting for President Gilman, met the graduate students in the Donovan room at 10 o'clock. Dr. Edward H. Griffin, dean of the university, met the freshmen at 9 o'clock. They were warned against hazing and threatened with direct punishment if this rule was broken. The official list of those entering is slightly larger than that of last year.. There were about sixty freshmen. A resolution of respect to the memory of the late C. Morton Stewart, for nine years president of the board, was adopted by the board of trustees. The trustees ratified the appointment of Dr. Gordon Wilson as fellow in pathology. D. N. Shoemaker was also appointed assistant in zoology in place of Dr. G. A. Drew, resigned.

The College of Physicians and Surgeons in Baltimore was formally opened on October 1st for the twenty-ninth annual session. The faculty has added a handsome new building to the college at a cost of about $100,000.

The Baltimore University School of Medicine was opened on October 1st for the session of 1900-01. A meeting of the students, presided over by the dean, Professor H. H. Biedler, was held at 8 o'clock. An address of welcome was delivered by Professor James A. Melvin.

The nineteenth session of the Woman's Medical College, Baltimore, was opened on October 1st with an address by Dr. Claribel Cone, professor of pathology, on Woman and Her Work. About thirty students—a larger number than before this early in the session—have matriculated.

Several changes are noted in the faculty of the Baltimore Medical College, the most important being the promotion of Dr. J. M. H. Roland to the professorship of obstetrics. He succeeds Professor Brinton, who becomes professor emeritus. State Senator Olin Bryan will be lecturer on medical jurisprudence this year, succeeding Mr. Archibald Taylor.

At the College of Pharmacy, Albany, N. Y., President A. V. V. Raymond, of Union University, presided and delivered an address of welcome at the opening exercises on October 1st. The address of the evening was delivered by Dr. Thomas W. Jenkins, of this city, who spoke on Individuality.

The opening exercises of the Creighton Medical College were held in the college auditorium on the night of September 25th and were well attended. The principal address was delivered by Dr. F. E. Sampson, of Creston, Iowa. It is stated that the attendance this year is much larger than ever before and that the college is flourishing in every way.

The new Cornell Medical School opened on October 2d with its new building in First avenue, running from Twenty-seventh to Twenty-eighth street, ready to receive the five hundred students that have enrolled. There are about fifty per cent. more students than in 1899. Every class will have about one hundred in it. The building is 400 by 200 feet, extending back from the avenue 200 feet.

On the sixth, or top floor, there is a dissecting room, 200 by 100 feet, which will seat three hundred students. It is roofed by a double skylight, beneath which are pipes made to hold freezing water in summer and steam in winter. On the roof is a six-foot ventilating pipe, which runs to all rooms in the building. Pathological and bacteriological laboratories occupy the fifth floor. From the fourth story down the building is divided into two equal parts. On the south side the dispensary has its quarters, and on the north the medical college. The administrative rooms are on the lower floor, and at Twenty-eighth street and First avenue is the students' reading room. The basement is devoted to engines. There are ten dynamos to supply power for the two elevators, steam heat and freezing water for pipes and to run the refrigerating plant. The old building which the school used has been turned over to Bellevue Hospital, to which it belongs. It will be used as a maternity hospital. The Loomis Laboratory of Cornell University, in Twenty-sixth street, will be turned into a school of public hygiene, being the second in the United States. Next spring it will open to give a six weeks' course to health officers in the different cities of the country.

On September 25th a meeting was held by the board of trustees of the University of Dallas, at which were elected the following additions to the medical faculty: David Davidson, A. M., M. D., of New York, professor of pathology and histology and lecturer on skin and rectal diseases; Elbert Dunlap, M. D., professor of materia medica and therapeutics; Lewis David Johnson, M. D., of Denver, Colo., adjunct to the chair of medicine; H. A. Mosely, M. D., clinical assistant to the chair of diseases of children. The chair of chemistry is at present unfilled.

A Korean Woman Physician, Mrs. Pak, recently graduated from the Woman's Medical College, Baltimore. Her first instruction was received at a mission school in Seoul. She has returned to Korea, where she intends to engage in medical missionary work. Mrs. Pak's husband, who had been instrumental in having her educated, died soon after her matriculation.

Medical Practice in Michigan.—After the examination of candidates for a license to practise medicine in the State of Michigan, which was to be held at Lansing on October 9th, it was expected that the State board would then decide to notify all who were not properly qualified and who had made no effort to pass the examination to haul down their shingles, and would prosecute those who failed to comply. (See also *New York Medical Journal,* October 6th, page 598.)

The Conjugal Duty.—According to *Province médicale* for September 1st, considerable comment has been caused by a decision of a French court which refused to grant to a woman plaintiff, aged sixty-eight years, a decree of divorce on account of the non-accomplishment of his conjugal duties by the respondent, aged seventy-four years. The law, says the *Province médicale,* is settled on this point. The non-performance of the conjugal duty —quite apart from the age of the parties—can only be a ground for divorce when it is accompanied by an element of injury. The tribunal must ascertain if the refusal is the result of an intention on the part of the defaulting party to outrage the spouse.

The Will of Dr. L. A. Sayre.—The will of Dr. Lewis A. Sayre has been filed for probate. His son, Dr. Reginald H. Sayre, and his daughter, Mary Hall Sayre, are appointed his executors. The value of the estate is estimated at $93,000 in real and personal property. Mrs. Eliza A. H. Sayre, his widow, receives the Fifth avenue house, with its contents, and her husband's horses and carriages for life, and on her death the house is left to his two children and the children of Lewis H. Sayre, his deceased son. His son and daughter get most of the contents. The residue of the estate is to be divided between his son and daughter.

Expenses of the Health Department of the District of Columbia.—Dr. William C. Woodward, the health officer of Washington, D. C., finds the appropriations for the proper conduct of his office just about one-third what they should be. In a long report recently submitted he explains the reasons for his demands. At present the appropriation for salaries, etc., amounts to $58,120. As submitted by the health officer they would be $145,820.

Unlicensed Physicians in St. Louis Arrested.—Warrants charging the practice of medicine without a license were recently issued against Dr. B. F. Folsom, Dr. F. L. Sweeney and Dr. W. A. Lewin at the instance of Dr. L. C. McElwee, secretary of the State Board of Health. Dr. McElwee says there are about thirty other physicians in St. Louis practising without a license and he will ask for warrants against them as soon as he secures sufficient evidence.

New Officers of the American Electro-therapeutic Association.—The tenth annual conference of the American Electro-therapeutic Association was held recently at the Academy of Medicine, 17 West Forty-third street, this city. Papers relating to Electricity in Gynæcology were read by Dr. Frederick D. Morse, of Melrose, Mass.; Dr. William J. Morton, Dr. F. Schavvir, of Stamford, Conn.; Dr. G. B. Massey, of Philadelphia; Dr. Robert Newman, of this city, and Dr. F. La Torre, of Rome, Italy. The following officers were chosen for the current year: President, Dr. Ernest Wende, of Buffalo; first vice-president, Dr. F. H. Morse, of Melrose, Mass.; second vice-president, Dr. D. R. Brower, of Chicago; secretary, Dr. G. G. Bill, of Harrisburg; treasurer, Dr. R. G. Nunn, of Savannah; chairman executive committee, Dr. Francis G. Bishop, of Washington.

To Prevent Premature Burial.—Two resolutions pertaining to the burial of the dead were recently introduced at a meeting of the Detroit Board of Health. The first provided that the dead from contagious diseases be cremated, as it is said it is a well-known fact that germs go into the soil and are a source of danger. The second resolution provided that the bodies of dead persons should be kept seventy-two hours before the undertaker is allowed to go to work, in order to prevent people being buried alive, or killed by embalming fluid. Both resolutions were tabled.

Officers of New Hampshire Surgical Club.—At the annual meeting of the New Hampshire Surgical Club at Rye Beach, N. Y., the following officers were elected: President, Dr. Ira J. Prouty, of Keene; vice-president, Dr. J. M. Gile, of Hanover; secretary and treasurer, Dr. M. W. McMurphy, of Concord; executive committee, Dr. Frank Blaisdell, of Goffstown, Dr. B. L. Stickney, of Newport, and Dr. A. C. Heffenger, of Portsmouth.

Railroad Surgeons Meet.—About one hundred members of the Santa Fé Railroad Medical Society attended the session held at Colorado Springs on September 26th.

The following was the programme: President's Address, Dr. C. A. McGuire, Topeka, Kas. Dr. C. G. Elliott, Blackwell, O. T.: The Modified Form of Small-pox; Dr. L. D. Jacobs, Emporia, Kas.: An Explanation of How the Infusion of Normal Saline Solution Does or Does not Benefit the Condition of Shock, without the Accompaniment of Hæmorrhage; Dr. J. Frank McConnell, Las Cruces, N. M.: Canadol as a Detergent in Surgery; Dr. E. B. Shaw, Las Vegas, N. M.: Typhoid Fever and its Treatment; Dr. George R. Highsmith, Carrollton, Mo.: Trauma an Ætiologic Factor in Tuberculosis of the Bones and Joints.

Scarlet Fever in California.—Several cases of scarlet fever have been reported from Santa Clara and San José, California. At San José, the epidemic was reported, at the meeting of the town trustees of the board of education, to be on the wane, and it was decided not to close the schools. At Santa Clara the board of trustees, the board of education and the board of health have jointly issued a warning to householders to employ disinfectants and to avoid intercommunication, under penalty. Quarantine has been established and infected houses have been fumigated.

Dr. Hunter McGuire's Will was admitted to probate on September 30th. The estate is left entirely to his wife and is valued at $150,000. Mrs. McGuire is made executrix, without security.

An Outbreak of Diphtheria in Ithaca, N. Y., at the end of September is said to have been believed by the health officer, Dr. Eugene Baker, to be due to infected milk.

The Seneca Falls (N. Y.) Medical Association was organized on September 26th. The officers elected are: President, Dr. F. M. Severson; vice-president, Dr. Frederick Lester; secretary and treasurer, Dr. Herbert Schoonmaker. The association will hold monthly meetings.

The East Tennessee Medical Society adjourned its semi-annual meeting, held at Bristol, Tenn., on September 28th. The officers elected for the ensuing year are: President, Dr. D. M. Miller, Indian Springs; vice-president, Dr. C. J. Broyles, Johnson City; treasurer, Dr. W. J. Matthews, Johnson City.

The Needs of Jefferson College, Philadelphia.—President Potter in his opening address said that their most immediate want was a modern fireproof hospital. If they were successful in interesting the charitably disposed and the Legislature of the Commonwealth in their efforts to secure the means, they hoped to commence operations during the coming year on the site already possessed for that purpose.

He added that the faculty had recommended to the trustees that a laboratory of clinical medicine be established in connection with the proposed new hospital, to be known as the J. M. Da Costa Memorial Laboratory of Clinical Medicine. The trustees would meet on the 4th instant, and from a personal canvass of its members, it was assured that at this meeting a subscription fund would be opened to erect this memorial to one who for more than thirty years had been a most distinguished member of the teaching staff. Dr. Da Costa's affection for his alma mater had enriched the museum of Jefferson College by the addition of his most valuable collection of drawings, charts, specimens illustrative of various best French artists.

Erratum in Dr. A. B. Thrasher's Article on Fibroma of the Larynx, published in our issue for October 6th. The following important correction came too late for press: On page 589, left-hand column, line 28, the clause should read: "through the cricoid and the anterior angle of the *thyreoid* to the base of the epiglottis," instead of "the anterior angle of the arytænoid," as printed.

THE NEW YORK MEDICAL JOURNAL, October 20, 1900.

Original Communications.

THE MEDICAL AND SURGICAL TREATMENT OF ACUTE AND CHRONIC LYMPH NODES OF THE CERVICAL REGION.*

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The management of this condition is a problem upon which there is a wide difference of opinion among surgical authorities, and inasmuch as the condition is so exceedingly common, and its treatment by nearly every method more or less unsatisfactory, it seems well to keep it constantly before the minds of the profession in order that, from the data thus acquired, a satisfactory and systematic line of treatment may be agreed upon. There can be no difference of opinion in any body of scientific men as to the utility of the lymphatic glands; that, whatever other object they may accomplish, it is certain that they distinctly and constantly screen out of the local circulating medium poisonous materials that are seeking admission to the general circulation. We are all agreed as to their great usefulness, and to the fact that their loss for any cause whatever is to be greatly deplored, and it is just as well to premise a discussion with a plain statement that no lymphatic gland should be removed, for any cause whatever, so long as it preserves its usefulness and is more serviceable than it is damaging. Hence the proposition we have to consider is, how far the usefulness of a lymphatic gland can be preserved after it becomes diseased, and whether or not in a diseased condition it is not only a useless but a menacing foreign body.

With all the study that has been given to the anatomy of this subject we are not fully able always to determine the limits and mechanism of the lymphatic protection. Nor is it possible for us always to say when these glands are healthy, when they are inflamed with non-septic or non-poisonous material, and when they have themselves become the focus for the dissemination of septic or malignant infection. When we consider the behavior of lymphatic glands inflamed from acute septic infection, and the seat of suppuration, we are confronted by a surgical problem. This is the by no means uncommon course of a septic infection received upon an extremity. Inflammation running along the course of the lymphatics of the arm is arrested in the ordinary processes of nature by the glands in the axilla. If the primary focus of the infection has been of such a degree as tends to the reproduction of the destructive focus wherever it finds a lodging, a slow process of sepsis with a moderate temperature and a limited amount of pain may become engrafted upon the constitution from these inflamed glands. Circumglandular suppuration, with softening and maceration of the glands themselves and the formation of a considerable abscess, may occur in two or three weeks' time without any profound constitutional disturbance. The diagnosis of suppuration under these conditions is to be based upon the general signs of chilly sensations, constant elevation of temperature, increased frequency of pulse, and some hectic; and these, together with the local symptoms of enlargement more or less progressive, and tenderness, oftentimes not very marked but with a general constitutional depression, indicate the existence of septicæmia more or less severe, with probable abscess. The introduction of an aspirating needle, if needed, would complete the diagnosis. Whether simple drainage will be the best means to effect a cure is the disputed question. Undoubtedly, liberation of the pus is indicated, but many surgeons maintain that if the glands are left, even though partially disintegrated, they will be more or less reproduced, and thus add to the protection of the general constitution from subsequent infection. How this reproduction is achieved, and to what extent the glands totally extirpated are replaced, is not a matter of proof. Statistics upon this subject are not available to establish the data needed in determining present surgical indications. But comparatively few extirpations of acute septic glands have been made, and though hundreds of suppurating and non-suppurating tuberculous cases are reported, comparative analyses have not been generally made, case by case, so far as I can find, in any large number of cases. Dowd (1) gives a number of references in his careful article on the subject, but even these do not indicate very complete analysis. The surgical principles involved are not different from those of surgical pathology elsewhere, and with the advance of the art the practice is likely to change. Though many nominal objections to operation for tuberculous adenitis are offered, only three seem to have any real grounds, viz., the loss of protection by the glands; the difficulties of complete removal, and the danger of dissemination of the germs. Though the title of this paper includes acute adenitis as well as chronic, it is to be understood to refer only to chronic septic infections, for here as elsewhere there is no difference of opinion as to the incision of acute abscess. We encounter four forms of chronic tuberculous adenitis; the single, indurated slow-growing gland; the multiple indurated gland, without tendency to suppurate; the softened suppurating gland; and the gland with an old sinus. The course is the same, but it is modified by the powers of resistance in the constitution. In that form of multiple gland induration, involving constantly increasing numbers, the cause is constitutional; and recurrence will be the result of operation. In the other forms, which are really stages of one type, the cause is local, and is due, doubtless, in most cases, to infection from the tonsils and adenoid growths in the naso-pharynx, and perhaps occasionally to carious teeth. Such causes are often susceptible of removal, and this is followed by improvement in the glands. The pathology of this condition has recently been well described by Schleich, of Berlin (2), and is fully discussed by many authorities in current medical literature, to which reference is here made. This subject will not be considered here. In the main, it is generally accepted; but the conclusions of even so great a surgeon as Schleich are not those most commonly adopted by American surgeons. Wheaton (3) recently expressed the opinion that the protective power of the glands was not only so perfect, but so extensively and inexplicably exercised, that the removal of such a help to health was often a crime. Schleich, taking somewhat the same view and dilating upon the difficulties of the operative steps, advises a conservatism that seems almost unsurgical. Dowd (1), Morgan (4), Bentham, Robinson (4), Petit (5), and other recent authorities here noted, adopt more radical procedures, some, perhaps, going to the extreme in the opposite direction.

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*Read before the Mississippi Valley Medical Association, at the meeting in Asheville, N. C., October 9, 10 and 11, 1900.

The lymphatic glands do undoubtedly more or less perfectly prevent the invasion of the constitution by infections. In ordinary normal conditions they effect this without becoming irritated; when, however, more work is put on them than can well be borne, swelling, redness and tenderness, indicating inflammation, supervene. With this inflammation, the function becomes interfered with or perhaps destroyed. If, perchance, the invading poison is not too virulent, Nature may correct the inflammation by resolution. If it is virulent—acute or chronic—not only will that gland and other neighboring glands be rendered "hors de combat," but the invading poison will advance beyond them, and leave them, not only useless to protect, but themselves disseminators of poison, thus helping to keep up the constitutional trouble. If the virus is chronic in character, this influence, though pursuing the same channels, will be slower and less depressing, but the analogy is the same.

Professor Schleich states that he was led to give his views and experience with relation to the treatment of this condition because of the absence of satisfactory data as to the surgical treatment. It does not seem, however, that the conclusions he reaches are approved by the present surgical opinion in this country; hence the subject offers a field for investigation. Granted that in the healthy state the lymphatic glands filter and modify virus, and protect the constitution—that once removed the protection is often partially, and sometimes wholly, lost—that elephantiasis sometimes succeeds the removal of lymph ganglia—that complete removal is sometimes difficult or indeed impossible—that death may occasionally follow the operation—and lastly—perhaps the only important objection, that there may follow dissemination of the poison; let us for a moment consider the rational answers.

It is well known that all functionating glands in the body act, not only in support of each other, but often vicariously. The loss of a kidney is promptly made up for by its fellow; the establishment of collateral circulation after the obliteration of an artery is but the work of a few days in preventing gangrene of an extremity; disabled ducts and whole groups of damaged muscles are compensated for by able substitutes. Not only is it rational to expect the remaining countless glands and lymph radicles to take the duty of their perished comrades, but Nature here as elsewhere will provide a new protection where the old is destroyed. Hence, a hopelessly damaged, threatening, infected lymphatic extirpated is a good riddance, and no good surgeon in either Germany or the United States, or elsewhere, would hesitate a moment if he could extirpate the structure totally by *wishing* it out. The gynæcologist of the present era, even in the face of death, advocates the extirpation of intra-abdominal glands though only threatened with malignant invasion.

The occurrence of swelling of the lymph tracts and pseudo elephantiasis is, perhaps, an occasional sequence of the removal of axillary glands—never of cervical—but it must be very rare that it does not get well in a few months, and it cannot well follow any but very extensive resection for cancers or lymphadenoma, either of them eventually fatal if undisturbed.

The difficulties of the operation in competent hands are not usually considerable and are never insurmountable; though frequently it may not be feasible to extirpate the capsule entirely. With regard to the dissemination of disease, it happens here no more frequently than with sarcoma and carcinoma. Ask the genito-urinary surgeon how he treats inflamed chancroidal buboes, and ascertain how little he fears dissemination. The operation done hastily with forcible enucleation and detachment may at times press the contents of the still intact gland into the proximal ducts, but careful and deliberate dissection and separation will not tend to disseminate the virus.

These are the reasons offered by the objectors to radical operations, and they lie with force only against unnecessary ones.

We have seen that the multiple lymphoma, where from a dozen to hundreds of glands are to be found, is the manifestation of a constitutional infection already beyond the aid of the glands, and hence to be benefited by surgery only when the glands themselves are a source of great distress from their size and numbers pressing on the structures. Suppuration is rare in this form. This is often the early manifestation of lymphadenoma.

The single hard-growing and non-suppurating gland indicates the partial effort to restrain an invading poison. It may enlarge gradually or suppurate later, but often it remains stationary without pain or suppuration, and only demands surgical intervention when, by pressure from increasing size or from disintegration, it becomes a menace.

The inflamed single gland, or perhaps group of two or three glands, which appears often in seeming health in childhood and early adolescence, with redness and some tenderness, and even at times painful, and which in a few weeks shows fluctuation from circumglandular suppuration, is, nine times out of ten, hopelessly damaged, and will, if not removed, gradually soften and be got rid of after weeks or months, or maybe years, of discharge. In their later stage, these glands constitute the fourth form in which we see this troublesome affection.

Why such a condition should be temporized with, why it should be washed out with peroxide of hydrogen, or poulticed, or bandaged up with salves, is not a question to be asked of scientific surgery, nor is a curettement to be substituted for an early removal, as complete as is possible in the surroundings.

How, then, shall these conditions be treated? Medical and expectant methods apply to the non-suppurating and non-progressive states, until, either because of the discomfort or for æsthetic reasons, surgery is invoked. This treatment, besides the ordinary constitutional measures, may include the administration of mercury as well as of potassium iodide, both highly recommended by Schleich. Local applications of moderately stimulating ointments or paints serve a moral as well as a physiological purpose. The internal administration of iodine and hydriodic acid are among the valuable special agents. Warmth and protection are of great value. Iodoform injections into the gland and circumglandular structure are advocated by Hammerschlag (7). This plan of treatment may be safely continued until caseation or suppuration ensues. When this occurs, the gland is hopelessly damaged, and, besides, it is a source of infection. Under such circumstances shall it be excised, with or without curettement, enucleated, or extirpated? Incision gives a tardy, incomplete recovery, a long treatment with constant dressing and an ugly cicatrix; curettement aids in a prompter repair, but the convalescence is still a tedious one and some of the glands come away with suppuration. Enucleation, appropriate for the non-softened glands, is to be substituted after suppuration for complete extirpation, only when the latter cannot be completed. In all these steps I believe the danger of dissemination is less in complete extirpation.

True, it is not always possible to resect all the capsule, and an extirpation may result in a final curettement, but, commonly, care and patience will enable the surgeon to remove all the glands, close up the wound with a small drain and promptly restore the patient to health. Usually, after this operation the general health will astonishingly improve, and the patient will take on flesh. Recurrence, when it is observed, is due, not usually to dissemination, but to the original cause, which, when possible, should be removed prior to any other treatment.

We conclude then, that

1. The cause of tuberculous adenitis of the cervical region is almost always local, and takes place through the buccal cavity.

2. The glandular manifestation, when it progresses, and especially when it is followed by suppuration, indicates a damaged and usually useless, often dangerous, gland.

3. The removal of such a gland *in toto* and promptly is neither difficult nor dangerous, and is the treatment indicated.

4. Nature will probably provide a new and equally perfect protection in the stead of the one that is lost.

5. Multiple enlarged glands indicate a constitutional tendency which will not be benefited by removal, except when local discomforts and dangers indicate it.

6. Small groups or single slowly growing glands are subject to the same indication.

References.

1. *Annals of Surgery,* May, 1899.
2. *Pœdiatrics,* October 1, 1899.
3. *St. Paul Medical Journal,* September, 1900.
4. *Pœdiatrics,* October 15, 1899.
5. *Gazette médical de Liège,* December 23, 1897.
6. *St. Paul Medical Journal,* September, 1900.
7. *Deutsche medicinische Wochenschrift,* December 23, 1897.

THE PRESENT STATE OF OUR KNOWLEDGE CONCERNING THE CAUSE, NATURE, AND TREATMENT OF ASTHMA.

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(*Concluded from page 629.*)

THE TREATMENT.

When we come to the subject of the treatment of asthma, we have to consider separately (1) the treatment of the paroxysms, and (2) the treatment in the intervals of the paroxysms—that is to say, the treatment which is intended to be curative and, in a measure at least, prophylactic.

1. *Treatment of the Paroxysms.*—Individualizing is necessary to secure success in overcoming attacks of asthma, as much as, if not more than, for any other affection with which we have to contend. As idiosyncrasies are very common with respect to conditions and circumstances which induce the attack, so also with regard to the remedies employed to relieve it. In some cases in which one remedy after another has been tried without success, and the patient is utterly discouraged, finally some agent made use of as a last resort will prove to be the magic charm for which the patient has so long sought in vain.

During the paroxysm, an easy and comfortable position should be secured, all constriction removed from the neck and chest, and, taking care to cover the shoulders to avoid taking cold, the windows may be opened in order to admit as much fresh air as possible. It is important to have a firm, confident manner in managing these cases, and that the patient should be relieved from attendants who excite and alarm him and removed as much as possible from other disturbing circumstances.

Fumigations.—In great favor with the patient are the so-called fumigations, prepared by uniting certain powders in different combinations and igniting a small portion in a porcelain vessel, so that the patient may inhale the fumes. The following is an excellent formula:

Pulv. stramonii, Pulv. belladon. fol.,	*aa*, 25	grammes	(about	375	grains);
Pulv. potasii nitrat.	6	"	"	90	"
Pulv. opii	1	"	"	15	"

Cigarettes.—Another method is to smoke cigarettes made from different ingredients, the most common of which are stramonium, belladonna, and opium. One combination will succeed in one case and another in another. Patients who are not smokers will often experience relief from the ordinary tobacco cigarette. The following is a formula which has been furnished by Trousseau:

Fol. elect. herb. belladon.	0.36	of a gramme	(about	6	grains);
Fol. elect. herb. hyoscyam.	0.18	"	"	3	"
Fol. elect. herb. stramon.	0.18	"	"	3	"
Fol. elect. phellandrii aquat.	0.06	"	"	1	"
Extract. opii	0.008	"	"	0.120	of a gr.
Aquæ lauro-cerasi	q. s.				

The leaves, after being macerated in the cherry-laurel water, are carefully dried. They are then ready to be made into cigarettes.

Arsenical cigarettes are also very efficacious. They may be made by saturating paper with a solution containing one grain of arsenite of potassium in 25 c. ctm. (about 6 drachms) of water. A mouth-piece should be used in order to avoid having the paper itself come in contact with the lips.

Inhalations.—Those employed are chloroform, ether, amyl nitrite, pyridine, and iodide of ethyl. Great care must be observed in the administration of inhalations, as by some patients they are not well borne. Alarming collapse may result both from ether and chloroform. Amyl nitrite should not be given except in the beginning of the paroxysm, before the stage of vasodilatation has been reached. If this precaution were always observed, it is probable there would be less need of the warning against this drug recently given by B. Robinson (*Therap. Gazette*, January 16, 1899). He has seen cases in which congestion seemed to follow and the dyspnœa became worse.

Pyridine is an inhalation proposed by Germain Sée, and advocated also by Rochefontaine. It is a volatile, colorless liquid, of coal-tar origin, having a strong, penetrating odor, and a little nauseating. Its physiological effect is to diminish the reflex activity of the medulla and respiratory centre. It is employed either by inhaling ten or fifteen drops put upon a handkerchief, or four or five grammes in a saucer. It has generally been found to give almost instantaneous relief.

Another inhalation likewise recommended and used by the French is *iodide of ethyl*. It comes in little glass capsules containing about six drops, which can be broken as needed. It is a colorless liquid of an ethereal odor. Its effects are highly praised.

Of medications used to overcome the attack, nothing has found such general favor as subcutaneous injections of morphine and atropine, separately or combined. Morphine may be called, perhaps, the sovereign remedy, but of course there are contra-indications to its use, too well known to require mentioning.

The action of atropine differs in different cases. This depends in part, perhaps, upon the iodiosyncrasies to the drug, but also no doubt is influenced by the dose and time of administration.

Among other drugs used subcutaneously are to be mentioned pilocarpine, hydrochloride of hyoscine, and ether. The last has been lately recommended by Bruck (*Memorabilien*, March 13, 1900) upon the ground of his experience with its use in twelve cases.

Numerous agents are also internally administered, with varying success in overcoming the asthmatic paroxysm. They for the most part belong to the group of motor-depressants. Lobelia, grindelia, and quebracho are among the most popular. Chloral hydrate and the bromides are also largely prescribed.

The iodides, mineral waters, and other remedies which are given in the intervals of the paroxysm are sometimes found useful also at the time, to moderate the severity of an attack.

Treatment in the Intervals.—This may be divided into (*a*) hygienic, (*b*) treatment according to cause, and (*c*) medicinal treatment.

Hygienic.—Of the utmost importance is attention to the hygienic care of the patient, not only in the carrying out of certain specific regulations in regard to diet, air, water, exercise, etc., which are to-day strongly emphasized as prophylactic measures in the treatment of all diseases, but also in setting a right direction to the patient's mental habits.

Mind.—We have pointed out in discussing the nature of asthma the prominent rôle evidently played by the psychic factor in this disease. Where the mind is so impressible and so pliable, and can in turn so strongly influence the physical function, it must lend itself with particular facility to therapeutical designs. Unfortunately, it is the experience of those familiar with the disposition and habits of the asthmatic, that an evil and most baneful turn has generally, through a bad environment, poor advisers, and other circumstances, been given to his mind. The asthmatic is the common prey of quacks. He may have begun, like any other individual, with a regular physician, and with no less confidence than is normal. Failure, so common in these cases, was for him a strongly felt disappointment. Other trials follow, the more disappointing in the end for the relief which may for a brief period have been attained. Still hoping, he consults quacks, from whom he gets bad advice as well as bad medicine. From quacks he takes to the use of any nostrum or vaunted specific advertised, or any "sure cure" which some well-meaning friend may suggest. Finally he adopts permanently the worst advice of all that has been given to him, namely, to shut himself up in his room, with every air-inlet closed, not daring to venture forth for fear of colds. He becomes discouraged, morose, and despondent, and, thus situated, is fit neither for physical nor for intellectual pursuits. Such a patient, needless to say, must first of all have his confidence restored. The physician, having succeeded in getting *en rapport,* must explain to him something of the nature of his affliction, that its cure depends upon a number of circumstances, and not upon taking any one particular remedy, and refrain from too enthusiastic promises, lest the patient's expectations failing of realization may again lead to despair.

Having then succeeded in restoring as nearly as possible a healthy mental attitude, he proceeds to direct and regulate the patient's life according to sound hygienic principles.

Air.—First of all he must be taught the folly of the "hot-house" treatment. Draughts of course are to be avoided, but so also must the stuffy, vitiated air of a closely shut-up apartment. The bronchitis, which is nearly always in more or less degree associated, will fare much better if the subject will keep his lungs as well as possible filled with pure, fresh air, even though he may be compelled sometimes to risk a little inclement weather.

Climate.—There seems to be no specific climate for the asthmatic. One is best at the seashore, another in the mountains, and a third is free from attacks only while living in the city. In general, a woody country, especially in the neighborhood of pines, is better than an open country or land under cultivation. He must avoid high altitudes or places in which certain injurious vegetation or unhealthy odors prevail. In advising a patient in regard to locality, we must bear in mind the peculiarities of the disease. If it appears that in any particular climate the paroxysms are worse, it is of course advisable to find a new residence, and one as different as possible; but, a place being found where relief is secured, a change is not only unnecessary, but decidedly unwise. The patient from experience learns what localities are suited to his particular case, and these he must "grapple to his soul with hooks of steel"—at least so long as they remain suited.

Diet.—On account of the very frequent connection between asthma and disturbance of digestion, the diet becomes one of the most important cares of the asthmatic. Heavy meals and late suppers, it can be laid down as a general rule, must be abstained from. Of course certain articles which he has found harmful in his case he will take care to avoid. As it is generally the flatulent form of dyspepsia from which the asthmatic suffers, he should be very sparing of the carbohydrates. Cheese, sausages, sweetmeats, pies, coffee, nuts, and preserves are the articles which must be struck from his dietary.

Exercise.—This has been advocated by some as a good prophylactic measure, and in fact its beneficial effects have been well demonstrated. Some have gone so far as to recommend violent bodily exercise, such as boating, bicycling, and gymnastics, but most agree that the patient should only take mild, regular exercise, and avoid overstraining. Walking a few miles every day is a practice which has proved serviceable in many cases.

Hydrotherapy.—The neurotic disposition of these patients would suggest the use of hydrotherapeutic measures. Cold showers and early morning plunges are of undoubted value. The Turkish bath is also recommended.

2. *Treatment According to Cause.*—Removal of the cause is an injunction which applies both to the external provocatives of the attack and to the diseased state of the organs. Little need be said as to the former. They are so many and various that each patient must find out what they are in his case, and of course avoid them.

The internal cause may be either central (direct) or proceeding from disease in some other part of the body (indirect).

A traumatic asthma, though of the rarest occurrence, may be mentioned so that its possibility may be borne in mind. It has been experimentally shown that asthmatic paroxysms can be induced by irritation of the nerve centres of respiration, and there are some few cases on record of asthma due to compression of the vagus or the recurrens, as from a tumor of the thyreoid.

Asthma due reflexly to disease of other organs is known from general experience to be very frequent, and it is imperative therefore to look carefully for the source of trouble in any local disease which may happen to coexist.

The most frequently reported reflex causes of asthma are disease of the nose, of the throat, of the digestive tract (asthma dyspepticum), of the intestine (parasites), of the genito-urinary apparatus, and of the heart. Of these, the nose is by far the most common source of reflex asthma. Voltolini, in 1871, proved the dependence of asthmatic paroxysms upon the presence of polyps in the nose. Much investigation and speculation have been indulged in, and soon from the observations of Hänisch, B. Fränkel, Schäffer, Schnitzler, and others, it appeared that not only polyps, but numerous other nasal conditions, could have the same effect.

It is pertinent to remark here that a superficial examination, such as may be made by the general practitioner, cannot be depended upon to exclude the presence of nasal trouble. The nasal disease responsible for asthma happens often not to be conspicuous, and may require a very careful examination, with the assistance of probe and cocaine, in order to detect it. Sometimes it is located upon the anterior end of the inferior or middle turbinate, sometimes on the posterior extremity; it may be hypertrophy, or a polyp, or an exostosis; or it may be simply a hyperæsthetic area of the mucous membrane.

The occasional failure of the removal of local troubles to cure the asthma ought not to be allowed to discredit their importance in general. Brilliant results are sometimes obtained, and often, although the cure may not be permanent, a decided amelioration in the severity and frequency of the attacks is thus attained.

Medicinal.—Iodide of potassium, ever since it was recommended upon empirical grounds by Green, of Boston, in 1860, has been a favorite remedy for asthma. It is indorsed by Trousseau, G. Sée, Leyden, and many others. According to Sée, it acts by favoring bronchial secretion and diminishing the exaggerated sensibility of the respiratory mucosa. He gives two grammes (about thirty grains) daily for a period of months, making an interruption of one day in every eight or ten. Later on he reduces the dose to one gramme daily. As Salter has remarked, we cannot predict just what cases will yield to iodide of potassium. We may have two cases which seem in every respect alike, and it will fail in one and succeed in the other.

Other iodides, such as those of sodium and ammonium, are also used, but œdema of the lungs occurring in the course of the use of any of the iodides is an indication to discontinue them immediately.

Certain drugs belonging to the order of the *Solanaceæ,* and others physiologically grouped under the motor-depressants, are frequently prescribed in asthma, some of them in the intervals, as well as at the time of the attacks. Quebracho, grindelia, lobelia, belladonna, euphorbia, sanguinaria, and jaborandi are the most popular. They are often most effective in combination with each other, and with one of the iodides or bromides. The prescription of Fothergill will be found often of benefit.

℞ Ammon. iodid. . . .	6 grammes	(about 90	grains);
Ammon. bromid. . .	8 "	" 12	"
Syr. Tolut.	60 "	" 900	"
Tinct. lobeliæ, ad. .	100 "	" 1,500	"

M.

Dose: One teaspoonful.

Of modern remedies, that which holds the first place in combating the constitutional disposition to which the asthmatic is prone, is piperazine. Its applicability to the treatment of asthma is readily understood when we recall the well-demonstrated association of the so-called uric-acid diathesis with this affection. Whether we think, with Bouchard, that uric acid is merely an incidental product of cellular activity, or, with Haig, that it plays the primary part in the causation of the disease, we must at any rate agree that there are certain morbid constitutional states associated with asthma and other affections which signify the existence of important nutritional disturbances. There is no drug known to me half so effective as piperazine in correcting this morbid state, and my experience with it in asthma prompts me to urge its more general use, with full confidence of its justifying the highest expectations. Being an unstable preparation, it is generally kept in the shops as piperazine water. One bottle contains one gramme of piperazine, the amount to be taken in one day.

The sodium, potassium, and lithium salts may also be given in the intervals of the attacks of asthma for their accredited efficacy in all conditions where the gouty diathesis prevails. If it is desired to give lithia, instead of the lithia water, whose actual proportion of lithia is too minute to have any therapeutical effects, it is best to prescribe it in effervescing tablets of definite doses. I have been for some time in the habit of ordering the so-called varalettes of Bishop (London), finding that they are more reliable and certain in their action than any other effervescing tablets known.

Atropine, a remedy which has been for some time used with varying success against the paroxysms, has been lately strongly recommended by Noorden (*Belgique médicale,* Gard-Haarlem, 1898, ii, 641), to be given in the intervals. He begins with a daily dose of 1-120th of a grain, increasing gradually until the patient is taking a daily dose of 1-16th of a grain. He then gradually diminishes the dose. This treatment is carried out for months at a time, with periods of intermission.

Of the tonics which may be given for asthma, the best are some combinations of iron, arsenic, or sulphur. Other remedies are recommended, and may under some circumstances be indicated.

As stated, asthma is a disease which above all others requires a strict individualization. We cannot limit ourselves to any one remedy, because there are cases in which certainly it would fail. It is unnecessary to say that regard must be had for the existence of complications, such as emphysema, and proper hygienic and medicinal treatment instituted.

Conclusions:

1. Asthma has so many points of resemblance with migraine, angina pectoris, and epilepsy that the suspicion may reasonably be entertained that they all have a similar pathology.

2. Of the theories which have been advanced to explain the pathogenesis of the asthmatic paroxysm, no one of them so well harmonizes all the facts as the vasomotor theory; and this only when we admit that the disturbance is essentially that of arterial contraction, rather than dilatation.

3. There is always present in asthma a morbid constitutional state, affecting especially the sympathetic nervous system and giving rise to a certain nutritional aberration, whose most salient feature is the increase of uric acid and the urates.

4. Asthma occurs as a reflex neurosis from diseases of different organs, but especially often from those directly supplied by branches of the vagus nerve. The nasal trouble, which is the most frequent reflex cause, is not necessarily an obstruction, and may be very inconspicuous and difficult to detect.

5. Nearly all cases of asthma show evidences of a pronounced psychic element, as in the curious variety of exciting causes of the attack, in the capriciousness of its course and behavior, and its dependence upon emotional states, suggestion, etc.

6. In the treatment of the paroxysm of asthma, a strict individualization needs to be observed. The best remedies are those which overcome arterial spasm, such as morphine, nitroglycerin, atropine, and chloral hydrate.

7. Treatment in the intervals of the attacks must be directed, in the first place, to the removal of the cause, and secondly, to the institution of sound hygienic and prophylactic measures in relation to the mind, diet, air, exercise, etc.

8. Medicinal treatment is addressed to improving the constitutional state, for which the best remedies are piperazine, iodide of potassium, and the other iodides, the alkalies, and general tonic treatment.

ELECTROLYSIS IN THE TREATMENT OF STRICTURE OF THE LACRYMAL PASSAGES.

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The subject of electrolysis for obstruction of the lacrymal passages is one which is almost wholly ignored in treatises on ophthalmology and medical electrology, despite the fact that it has been employed and recommended by a number of competent and conscientious practitioners for nearly a generation. Even an admittedly unsuccessful method is generally discussed at some length in special works, and, as electrolysis of the lacrymal passages is, in my own opinion, a promising resource in ophthalmology when properly managed, I propose, in addition to a statement of my own personal experience in this field, to contribute a much-needed historical sketch of the subject, together with a brief account of the technique, indications, etc., as found in the writings of those who have successfully practised this form of intervention.

There appears to be no doubt that Tripier, the well-known medical electrician, is entitled to the credit of first suggesting and carrying out this resource of ophthalmology. With regard to the date of this innovation, Tripier himself appears to fix it at about 1868 (he says, writing in 1898, that he devised the method thirty years before), Landesberg puts the date as 1867, and Lagrange, the leading writer on this subject, as 1863. Tripier, the general medical electrician, associated himself at an early date with Alphonse Desmarres, the ophthalmologist, in the study of this subject. Desmarres probably supplied the clinical material, while Tripier contributed the electrical apparatus and ideas. It would seem that the period of observation extended over a considerable interval and that finally, after a fair trial, Desmarres decided that the treatment was without value. Tripier complains that Desmarres did not give the treatment a fair test; but Desmarres, in the 1874 edition of his *Surgery of the Eye*, pronounces against it. I have not access to this edition of Desmarres. It would appear that it contains the first authoritative mention of this subject in literature.

From all that can be learned, Tripier, though an accomplished electrician, did not contribute much to the subject of lacrymal electrolysis. His vague account of his early efforts, published in 1898, shows that his ideas were extremely crude. He regards dacryocystitis as the condition which calls for electrolytic treatment, and believes it wise to enter the lacrymal sac through a spontaneous or artificial opening in order to reach the obstructed passages. He uses the patient's hand to complete the circuit, and the sessions last ten minutes. It has happened at times, he says, that by mistaking the negative for the positive pole the canals have been destroyed. It is evident that Tripier has always clung to his original notions. He never alludes to any other operator or mode of treatment.

The period 1874-5 or thereabouts seems to mark the literary beginnings of this subject. In 1875 Roy, a French oculist, published a pamphlet upon lacrymal electrolysis which is not accessible. This author, according to Lagrange, introduced one pole into each canaliculus. He reported a series of cases, but, according to Lagrange, they are insufficient for conclusions.

Gorecki, writing in 1889, says that he began his experience with this subject in 1874; while in 1876, Kramstyk, a Pole, also reported on the subject; his work is not accessible. Armaignac, of Bordeaux, began the use of this method "many years before" 1896, during which year he discussed one of Lagrange's papers. He speaks of himself as one of many who have abandoned the use of the remedy.

With the exception, perhaps, of Gorecki, there was no one employing this resource between 1876 and 1886; at least nothing was reported during that decade. Tripier, in a small work on medical electrology, 1879, gave his well-known views on lacrymal electrolysis.

In 1887 Steavenson, the electrician, in collaboration with Jessop, the ophthalmologist, inaugurated this method in the British Isles. They worked only upon the puncta and canaliculi. In 1890 Steavenson published a small work on medical electricity in which he repeats all that was said in the paper in which he collaborated with Jessop.

Generally speaking, it may be said that thus far the method had failed to arouse any general interest. Gorecki, who first wrote in 1878, who began the use of the resource in 1874, and who finally summed up his entire experience in 1889, appears to have been the only consistent supporter of lacrymal electrolysis for a long term of years. Most of those who made use of the method gave it up sooner or later.

In 1891 Rohmer published a study of this subject, his views being a repetition of those of Gorecki. As a general rule, it may be said that no one had as yet shown any disposition to push this method.

Finally, in 1894, Lagrange appeared upon the scene.

He apparently made a studied attempt to bring lacrymal electrolysis before the profession at large. In 1894, he read his first paper before the Ophthalmological Section of the International Medical Congress at Rome, reporting his first series of cases. Not satisfied with this, in the following year he read before the Paris Academy of Medicine a second and wholly different paper, with reports of more new cases. And finally, in 1897, he read a third paper before his local (Bordeaux) Society of Medicine and Surgery, with still another series of cases. This third paper was discussed at great length by Armaignac. In addition to these three papers, Lagrange inspired two theses upon this subject by his pupils, Chabaneix and Fournier.

Since the last paper of Lagrange's there have been no new studies on the subject. Nothing as yet has appeared in America. Lagrange cites an American named Norton in his bibliography, but this work cannot be found.

Technique, Opinions and Results of Authorities.—I have already alluded to the crude methods and doubtful results of Tripier and Roy. Gorecki is the first author to follow up the electrolytic treatment of stricture of the nasal duct for a number of years. He recommends a small battery made up of from two to four cells. His negative electrode is an ordinary Bowman's probe, while at the positive pole is a tracheotomy cannula of platinum designed for introduction into the nostril of the same side. Gorecki advocates slitting up the punctum and canaliculus, either immediately before or a day or two prior to the electrolytic séance. The patient's head must be held by an assistant during the passage of the current. The appearance of a few bubbles of hydrogen at the superior punctum shows that the electrolytic action is being accomplished, while the Bowman probe, which was originally tightly held in the nasal duct, becomes loose through the passage of the current, so that it may be drawn out with the greatest ease and may be replaced, if desired, by another.

Gorecki keeps his circuit closed for from two to five minutes. He objects to having the positive pole in contact with the skin, because, owing to the poor conductivity of the latter, a high-tension battery would be required, and secondary currents would be likely to pass through the brain and give rise to fainting attacks. He therefore prefers to use the nostril for the positive pole. Gorecki advises electrolysis when we have not time at our disposal for the more conservative methods, and also when the usual management has failed to give relief.

Steavenson and Jessop, in contradistinction to Gorecki, make use of a battery made up of a large number of cells and having a high electromotive force. A galvanometer is placed in the circuit, and the strength of the current should not exceed from two to four milliampères, although individual patients may require as high as from six to eight. These authors introduce a fine probe into the punctum and canaliculus, and this probe constitutes the negative pole. For the positive pole a flat plate electrode is placed on the nape of the neck. Thirty seconds are required, after the circuit is closed, for the enlargement of the canaliculus. It should be stated that the paper of Steavenson and Jessop deals only with electrolysis of the punctum and canaliculi. The diameter of the probes used has never exceeded 1.5 mm.

The technique, etc., of Rohmer, are the same as those used by Gorecki; but, while the latter regards two sittings as sufficient for a cure, Rohmer recommends seven or eight, at intervals of about a week.

Lagrange, in his first paper (1894), states that he was the first author to call attention to the disadvantages of electrolysis. The advantages consist in the rapidity with which the cure is effected, the disinfection of the lacrymal passages by the electrolytic action, and, finally, its general harmlessness and painlessness. The inconveniences consist in the formation of a contractile scar, with resulting obstruction of the canaliculus, since this narrow passage receives the full force of the electrolytic action; also, when too high an ampèrage has been used, cicatricial bridles are formed in the nasal duct. No better method of *obliterating* the canaliculus and nasal ducts could be devised than a high degree of electrolytic action. To prevent these accidents, it is necessary to insulate that part of the probe which lies in the canaliculus, and to use a current sufficiently weak to guarantee the integrity of the mucosa of the nasal duct. We wish to stop short of all caustic action, and simply modify the mucosa by softening and asepticizing it. This will not overcome the stricture, however, and to complete the cure we must use graduated sounds. Whenever a patient appears to be cured after a single sitting, we may confidently expect to see him become worse than ever a few months after the intervention.

With regard to the actual technique, Lagrange does not appear to differ materially with Gorecki. He employs from two to four milliampères, and the session lasts, as a rule, but two to three minutes, while they may be repeated at intervals of a few days. After electrolysis has been used, Lagrange adds the Bowman method of dilatation; in fact, he believes that the former treatment is only an adjuvant to the latter. After the first application of electrolysis a No. 3 Bowman probe is passed and left in for an hour. After it is withdrawn, salolized oil is injected into the lacrymal passages. Lagrange's poor results were all due to using currents of from eight to ten milliampères, with resulting cicatricial contraction. His good results at a later period were sufficiently encouraging to lead him to recommend this method, employed with the necessary precautions, in simple inflammatory strictures of the lacrymal passages.

In Lagrange's subsequent papers he advocates the use of a rheostat to prevent too high a degree of electrolytic action; failure to employ this device is, in his opinion, the cause of the poor results of other oculists in this field. He has also modified his instruments, employing for a dilator an Anel's probe with an olivary tip. His sound has a short extent (corresponding to the canaliculus) covered with insulating material, which is inlaid, so to speak, where a certain amount of silver has been excavated. When the circuit is closed the tension is gradually increased by the rheostat from 0 to 5 milliampères, allowed to remain at this height for four or five minutes, and then slowly reduced to 0 again. Thus performed, the operation is entirely painless.

It is not my intention in this connection to discuss the opinions, methods, or results of the above-mentioned writers. So far as I am concerned, this operation was suggested to me while I was at work upon the subject of electrolytic dilatation of the Eustachian tube as practised by Dr. Arthur B. Duel. At this period I had under my care six old cases of stricture of the lacrymal duct, in all of which the regular Bowman method had been employed, probing having been done at regular intervals over a period of from three months to two years. Each of these patients exhibited a mucopurulent discharge which rapidly ceased, especially as to purulency, after two or three applications of the electric current through a Bowman probe, at intervals of a week. These patients were all instructed to report in case of return of symptoms; but, although I began to use this method ten months ago, not one of this number has reported unfavorably.

I was sufficiently encouraged by these results to have constructed for me a special set of lacrymal electrodes, adapted to the treatment of cases which had never been submitted to any sort of surgical intervention. I hope to publish at no distant date a more compendious paper on this subject, which I shall illustrate by all necessary cuts of instruments, etc. At present it appears to me that the knife, in simple stricture of the lacrymal ductss, is unnecessary, and should be wholly replaced by the electrolytic bougie. With the fine-probe-pointed conical electrode, it is in almost every instance possible to enter the punctum and dilate the canaliculus sufficiently to pass a No. 5 electrode for electrolysis of the nasal duct. In one instance only, out of six cases, have I been compelled to slightly incise the punctum, as ordinarily done in Bowman's operation. In cases of simple epiphora, without any mucopurulent discharge or dilatation of the sac, this method of treatment appears to be an absolute specific.

I do not, of course, contend that this method is a panacea for lacrymal stricture. There have been a few cases of hospital patients, which are unusually severe, and which have been under long and various treatments, in which the results have not been so satisfactory; but all these patients have been, on their own voluntary statements, very much benefited.

The chief indication in lacrymal obstruction is to get the passages open and then keep them open. Electrolysis does this speedily, painlessly, and without hæmorrhage, and, furthermore, is antiseptic in its action. The strength of the current should not, in my opinion, exceed three milliampères. The positive pole is a flat sponge electrode, which must be applied to the back of the neck, and may be held there by the patient's hand or by a clamp. I prefer to have the positive pole at the neck, instead of the hand, on account of the greater voltage demanded by the latter locality, with the resulting formation of counter-currents. Two minutes is long enough under all circumstances for the current to pass. Short and frequent sittings are preferable to longer (five-minute) sittings a week apart. Even two-minute treatments have sometimes caused considerable hyperæmia, with itching and pain, lasting for twenty-four and thirty-six hours. After withdrawing the probe, it is well to wash out the canal with a four-per-cent. solution of protargol.

The apparatus used consists of a volt-selector, a current-controller (rheostat), and a milliampèremeter, attached to the Edison current, five lacrymal electrodes, the conical dilator, tapering from No. 1 to No. 8, No. 5, No. 8, No. 10, and No. 12, all insulated to within half an inch from the top. The necessary apparatus is made by E. B. Meyrowitz, whom I desire to thank very much for the painstaking care in making them and in carrying out my ideas.

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A COMBINED ASPIRATION AND INJECTION INSTRUMENT FOR SUBARACHNOID COCAINIZATION.

By GEORGE RYERSON FOWLER, M. D.,

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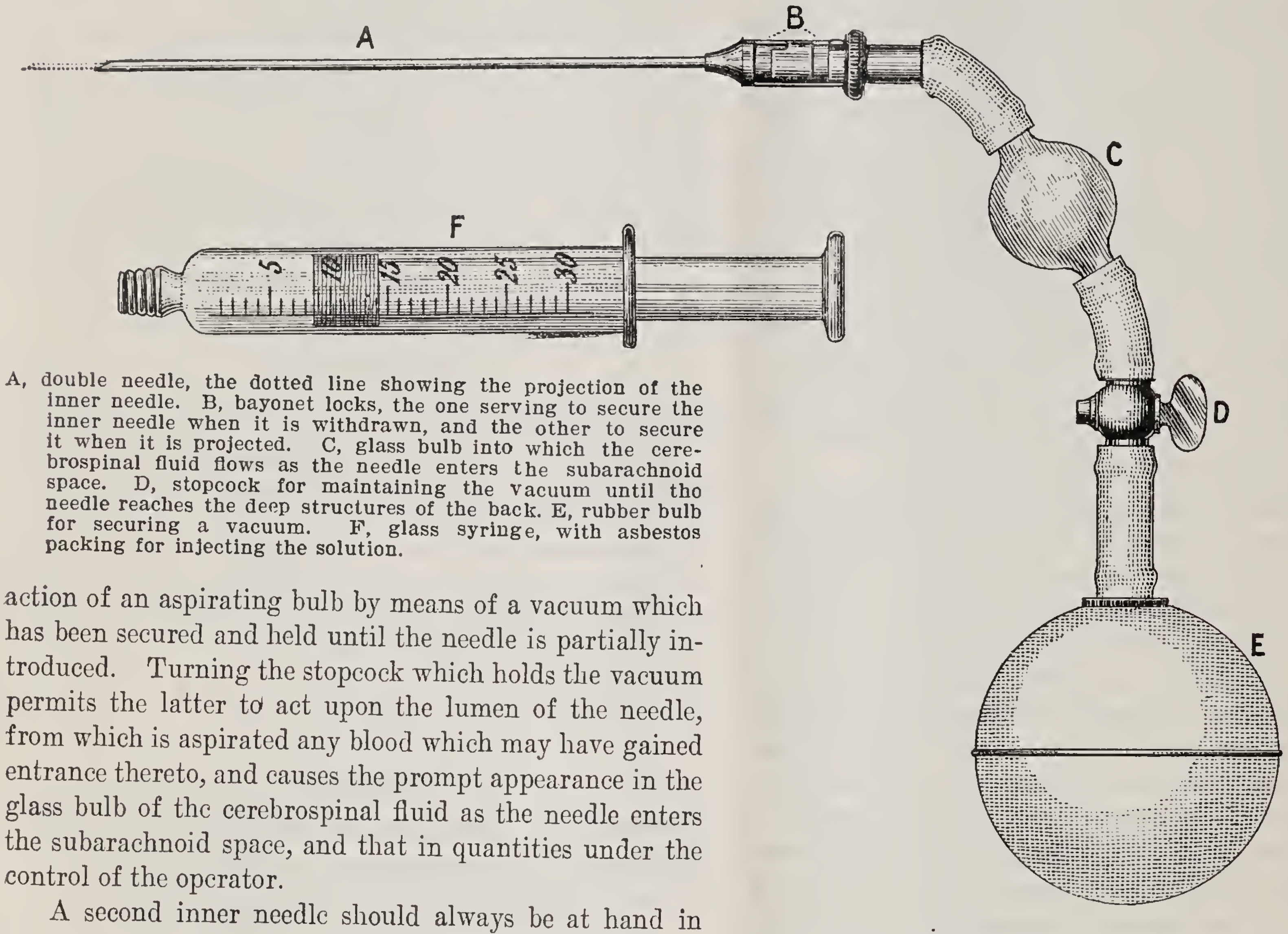
In the course of an experience covering thirty-five cases of analgesia produced by the injection of cocaine and other solutions into the subdural space in the lumbar region, for operations varying in length and severity from simple amputation of a toe to abdominal hysterectomy and choli-cystotomy, the writer has met with some mechanical difficulties leading to errors of technique which may confront the surgeon at any time in the employment of this method. As a result of this experience he has devised the instrument shown in the annexed cut, the design being: (1) to avoid blocking of the lumen of the needle by blood clot; (2) the use of a fine needle where it enters the spinal canal, and yet one of sufficient firmness and of material (platinum) calculated to resist any ordinary strain; (3) to facilitate the prompt appearance of the cerebrospinal fluid (the only trustworthy evidence that the spinal subarachnoid canal has been entered), and that in sufficient quantities to be accurately estimated; and (4), in the event of blocking of the needle by fragments of tissue, to be able to withdraw the inner needle for clearing and its reintroduction, or the introduction of a duplicate, without the necessity for a second puncture.

The instrument consists of a double needle, one passing within another. The inner needle is of steel, and is capable of being projected beyond the outer, or platinum, needle, and there secured by a bayonet-lock joint device after the instrument has been introduced for half or two-thirds of the distance. A glass bulb is arranged to receive the cerebrospinal fluid as it is withdrawn by the action of an aspirating bulb by means of a vacuum which has been secured and held until the needle is partially introduced. Turning the stopcock which holds the vacuum permits the latter to act upon the lumen of the needle, from which is aspirated any blood which may have gained entrance thereto, and causes the prompt appearance in the glass bulb of the cerebrospinal fluid as the needle enters the subarachnoid space, and that in quantities under the control of the operator.



A, double needle, the dotted line showing the projection of the inner needle. B, bayonet locks, the one serving to secure the inner needle when it is withdrawn, and the other to secure it when it is projected. C, glass bulb into which the cerebrospinal fluid flows as the needle enters the subarachnoid space. D, stopcock for maintaining the vacuum until the needle reaches the deep structures of the back. E, rubber bulb for securing a vacuum. F, glass syringe, with asbestos packing for injecting the solution.

A second inner needle should always be at hand in order to avoid loss of cerebrospinal fluid during the delay incident to clearing the first needle should this become blocked and require withdrawal, as well as to save the operator some loss of time and annoyance.

The modus operandi is as follows: A vacuum having been obtained by compressing the bulb, and held by turning the stopcock, the instrument is introduced with the needle points upon the same level, the proximal one of the two bayonet locks securing them in this position. When the instrument is well buried in the tissues, the vacuum is turned on by means of the stopcock, and when it is estimated that the spinal canal is nearly reached, the inner needle is projected and secured by the distal one of the bayonet locks, the inner, or finer, needle only entering the subarachnoid space, which entrance is at once announced by the flow of the clear and limpid cerebrospinal fluid into the glass bulb. The latter is then detached from the instrument, the rubber-tubing coupling remaining *in situ*, and to the latter the glass syringe with asbestos packing is attached, previously charged with the requisite amount (from three-fifths to four-fifths of a grain) of cocaine dissolved in from twenty to thirty minims of sterilized water. This or any other solution employed should be slowly injected, from fifteen to thirty seconds being occupied in this portion of the procedure.

Should the needle appear to have reached the proper depth, and no cerebrospinal fluid appear in the bulb, the inner needle may be withdrawn and cleaned with a stylet, or a duplicate inner needle introduced, the outer one acting as a guide, thus avoiding a second puncture. The latter would be of slight account in the case of the extradural structures; repeated invasions of the spinal canal itself, however, in the vain attempt to procure cerebrospinal fluid by means of a needle with an occluded lumen is a very undesirable procedure.

BULLOUS ENLARGEMENT OF THE MIDDLE TURBINATED BONE (CONCHA BULLOSA).*

By J. PAYSON CLARK, M. D.,

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CASE I.—Annie F., aged forty-five, married, came to the Throat Clinic of the Massachusetts General Hospital in July, 1899, complaining of nasal obstruction and frequent headaches, which she had had for over a year. There was no sense of pressure, there was no pain in the nose itself, and there was no nasal discharge. The sense of smell was diminished. Examination of the nose disclosed in each nostril a smooth, irregularly rounded tumor in the region of the middle turbinate, almost completely filling the space between the sæptum and the outer wall of the nostril and extending down to the lower turbinate. Each tumor was in contact with the sæptum. On pressure with a small probe on the surface of one of these tumors, the probe broke through a fragile, thin wall of bone and entered a large cavity. There was no nasal discharge. Thinking that either the nasal obstruction or the pressure caused by these growths or both might be the cause of the headaches, I advised their removal. This was done with the cold wire snare, one turbinate being removed on one day, and the other several days later. The hæmorrhage was very slight, and the pain, under cocaine anæsthesia, insignificant. Each growth was removed entire. They were so large that I had considerable difficulty getting them out of the nose without crushing them.

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*Read before the American Laryngological Association at its twenty-second annual congress.

The patient was seen four months after the operation. Nasal respiration was clear, she had no more headaches, and said the sense of smell was improved. The tumors were almost identical in appearance, being about 33 mm. in length, while a section through one of them had a roughly triangular shape, with a vertical diameter of 15 mm. and a base measuring 13 mm. The interior of each was a single thin-walled cavity, communicating with the middle meatus by a narrow slit-like opening, lying close to and parallel with the line of attachment. These cavities were absolutely empty.

Dr. James H. Wright has kindly made the following report of the microscopical appearance: "Transverse sections through the wall of the specimen show the following: The cavity is lined with several layers of columnar epithelial cells, some of them showing cilia, attached to a basement membrane. The cells are not atrophic or compressed in appearance. Beneath the basement membrane there is a zone of loose reticular tissue, extending to a layer of bone and containing lymph- and blood-vessels and a few gland tubules. This layer of bone has the general characteristics of the turbinate bone, but is considerably thinned and has the appearance of being stretched out. External to the bone is found a submucosa rich in mucous gland tubules and covered with an atrophic-looking mucous membrane. No signs of inflammation were observed."

Case II.—Pepi T., aged twenty-two, an Austrian Jewess, was referred to my clinic in March, 1900, for examination of the nose, with the idea of finding some possible cause for headache. She had had occasional headaches for several years of a neurasthenic type. For the past two months she had had pain in the right side of the head, which came on suddenly and had been constant day and night since. The pain was of a piercing, pulling character. She was in the Massachusetts General Hospital from February 27th to March 11th, with severe neuralgia involving the whole right side of the face and head. Glasses were prescribed for refractive error without relief. She had taken various internal remedies without relief. The diagnosis of the neurological department was supra-orbital neuralgia, right side, and neurasthenia.

Examination of the nose showed a fairly normal left nostril, with the exception of a narrowing in the upper portion, owing to a marked deviation of the upper portion of the sæptum. In the right nostril was seen a large tumor, covered with mucous membrane and completely filling the whole region of the nose above the lower turbinate. It was firm and hard to the touch, and considerable pressure with a small probe did not puncture it. A provisional diagnosis was made of bullous middle turbinate. A cold wire snare was now introduced, which, however, engaged only the lower portion of the growth, cutting off a section and exposing the empty cavity of the dilated cell. The walls of the remainder of the cell lay so close to the deviated sæptum on the one side and the antral wall on the other as to give the effect of being these structures. But, on introducing a probe close to the sæptum or the outer wall, the cell wall could be elevated. The snare was again introduced and the rest of the growth removed entire. There was hardly any hæmorrhage. The turbinate measured 37 mm. in length, 18 mm. in depth, and 17 mm. in width. (See figures.) The outer wall of the nose was much curved outward and no bulla ethmoidalis was visible, while the sæptum was much curved to the left. After the operation the neuralgic pains continued apparently unabated for a week, then began to diminish rapidly and in a week more had disappeared.

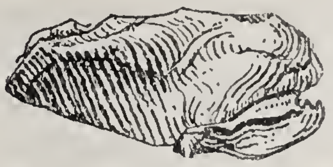
Fig. 1.—Side view.

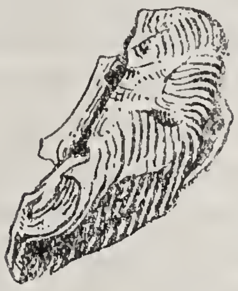
Fig. 2.—View from the side and behind.

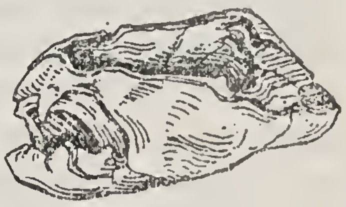
Fig. 3.—View from the side and behind.

I have operated in two other cases of this affection some time ago, of which, unfortunately, I have only very incomplete records. Both the patients were women about twenty-five years of age. Only one middle turbinate was enlarged in each case. The principal symptom was obstruction of one nostril. The turbinate was removed in each case piecemeal by cutting forceps. In one the nostril was full of polypi and there was a polyp in the cavity of the turbinate. This case was complicated by purulent ethmoiditis.

In considering the ætiology of these bullous or cellular middle turbinates, it is important to recall the anatomical relation of the middle, or, more exactly, the inferior ethmoidal, turbinate. I cannot do better than quote here from Lothrop's valuable monograph on *The Anatomy and Surgery of the Frontal Sinus and Anterior Ethmoidal Cells.* He says: "The lamina of bone forming the internal boundary of the labyrinth . . . is divided sufficiently for descriptive purposes into two triangles by the incisura ethmoidalis inferior and a line projected forward to the anterior-superior angle at the nasal process of the superior maxilla. . . . The inferior triangle is the inferior ethmoidal turbinate bone." It is evident that this turbinate is most closely connected morphologically with the ethmoid bone, and it would seem a not unreasonable assumption that it is a highly differentiated and specialized ethmoid cell. If this assumption is correct, we might naturally expect to find an occasional middle turbinate having a cellular structure, which condition could be looked upon as a reversion to a more primitive type. Now, it is a fact that anatomists have long recognized the existence of turbinates of this variety. Zuckerkandl says: "The form of the inferior ethmoidal turbinate presents frequent variations, of which some have a practical importance. . . . The transformation of the anterior extremity of the turbinate into a great osseous vesicle, *concha bullosa*, which Santorini has described in his *Observationes anatomicæ*, is frequent." To quote again from Lothrop's monograph—In describing the conformation of this turbinate he says: "This" (the outer) "surface is often rougher than the internal aspect of the turbinate, and characterized by depressions and pockets even of considerable size. The openings of these depressions may become constricted, thus giving rise to cell-like formations, resembling the ethmoidal cells. There may be a single large cell or more commonly several smaller cells, all of which open into the space . . . known as the middle meatus of the nose." And, a page or so further on, he says: "This" (the variety just described) "is the smaller and unusual variety of well-marked cell. In about 200 observations, turbinate cells were present in eighteen per cent. of the cases. One-third of these were of the variety arising from the turbinate sinus, two-thirds were cells differing in character and mode of origin, as well as location of their ostia. This latter variety is characterized by the presence of one large cell rather than several smaller ones, is located more commonly near the anterior border, which may be eight to twelve millimetres wide." [In my second case, as stated above, the turbinate was 17 mm. wide.] . . . "Of these larger cells, two-thirds open above the inferior ethmoidal turbinate into what is commonly called the superior meatus of the nose. . . . The cell may occupy a part of the turbinate only; or occupy the greater portion of it, when it has received the name of concha bullosa."

After a careful review of the literature of the subject I can find but twenty well authenticated cases which were operated on, making, with my four cases, twenty-four in all. Of these, twenty were in women, three were in men, and in one the sex is not mentioned. Seventeen of the patients were over twenty years of age, three were under twenty (the youngest being sixteen), and in four the age is not mentioned. Only five of those whose ages were mentioned were over thirty.

The fact that these large cellular turbinates, requiring operative interference, occur only in adults is not, it seems to me, an argument against their being of developmental origin. "In the fœtus at birth there are no ethmoid cells; these are not formed until the fourth or fifth year." (Holden is my authority for this statement.) As is well known, the growth of the osseous system is often not complete until the twenty-fourth or twenty-fifth year. Until about this time the various air spaces in the bones may continue normally to increase in size. In many of these bullous turbinates there is no evidence whatever of an inflammatory process, the large cells being apparently simply the result of an anomalous and excessive growth. In this view of the origin of these growths any evidence of an inflammatory process, such as polypi or purulent contents, is simply adventitious.

Another explanation of the origin of these cells, which seems to me much less probable, is the one suggested by MacDonald. The lower border of the middle turbinate normally curves outward, forming a concavity called the sinus of the turbinate. According to this theory there is an osteophytic projection of the free border of the turbinate, which continues to grow outward, upward, and inward until it almost meets the base of the turbinate, leaving a narrow slit-like opening into the upper part of the middle meatus. Fraenkel, Hajek, Heymann, and Zuckerkandl, while believing the cells to be congenital, think they owe their large size to suppuration. This view is not consistent with the fact that pus was found in only four of the cases reported.

Why these cases should occur almost without exception in women I am at a loss to say, nor can I find any satisfactory explanation given by other writers on the subject. The only explanation worth mentioning is that this condition would probably not arouse the same peculiar reflex symptoms in men as in women, and has therefore been generally overlooked in the former. But this does not seem very likely, considering the care with which the nose is examined to-day.

In twelve of the twenty-four cases the cells contained air only, five were complicated by the presence of polypi, one contained a yellow viscous fluid, four contained pus, and in seven the contents was not mentioned. Of fifteen cases, in thirteen the cell was single, in one there were two cells, and in one the cell was spoken of as "multilocular." In only four out of twenty-one cases were both middle turbinates affected.

The most prominent symptom is headache, sometimes accompanied by a sense of pressure in the nose. Obstruction to nasal respiration, which generally exists, comes on so gradually (when this condition is uncomplicated by polypi) that it is not spoken of so often as the headache. The pain is generally of a neuralgic character and may take the form of a hemicrania, or it may be limited to one or more of the divisions of the fifth pair of cranial nerves. The sense of pressure in the nose may exist without the secondary neuralgic symptoms. The sense of smell may or may not be affected. The nose as a rule shows no deformity externally. It may, however, be broadened on the side on which is the bullous turbinate. Discharge occurs only when there is inflammation of the cell cavity or of one or more of the adjacent sinuses. Vomiting occurred in one case with the paroxysm of pain, and in another there was loss of consciousness for two days. In one of the reported cases which was complicated with polypi the patient had asthmatic attacks. In another there were photophobia and overflow of tears.

The diagnosis of this condition is not difficult. Given a rounded swelling situated in the region of the middle turbinate, the feeling with a probe will at once exclude a polyp or hypertrophy of the mucous membrane. The comparatively normal appearance of the mucous membrane would probably rule out any new growth, while the fragility of the bone would exclude osteoma. An ethmoid bulla so dilated as to simulate this condition must be extremely rare. In such a case there would probably be a middle turbinate also present. Symptoms are generally relieved by the removal of the growth.

Some of the reported cases were treated by the galvanocautery or the injection of some irritant solution, such as chloride of zinc. These procedures are mentioned only to be condemned. Besides their being quite ineffective, the inflammation resulting might cause secondary empyema of one of the accessory sinuses or even meningitis. Removal with the cold wire snare, conchotome, or cutting forceps is the only rational treatment. Hæmorrhage is usually insignificant.

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DISTURBANCES OF GASTRIC MOTILITY AND THEIR SIGNIFICANCE.*

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This subject, on account of its practical character, appeals to every physician and surgeon and presents a fruitful field for general consideration and mutual discussion.

In the diseases in which nervous influences play an important part, it is, at the outset, of the utmost importance for diagnosis and treatment to distinguish those conditions which depend upon an organic lesion from those which are purely functional. In no class of diseases are nervous influences so markedly dominating as in diseases of the stomach. Everyone can call to mind many examples of the effect of excitement, worry, fear, sorrow and joy, upon the functions of the normal stomach, and this influence is strikingly accentuated in sub-normal conditions. Riegel, Ewald, Boas and all American writers upon this specialty, recognize the great importance of this group of diseases by giving, in their text books, one-third of the space assigned to the diseases of the stomach, to the consideration of the gastric neuroses.

Neuroses of the stomach present the same protean character in their symptomatology as is seen in all neuroses. Thus the secretion of hydrochloric acid may be normal, increased, decreased or even absent. If the diagnosis is based upon the secretory changes alone, then the possibility of a confusion of organic and functional disorders is always possible. When the motility of the stomach is considered, it is seen that the neuroses have but little effect in decreasing it. Marked diminution in gastric motility almost always excludes a neurosis, while its presence indicates a serious lesion of the stomach. Thus the determination of marked retardation in gastric motility enables us to exclude immediately a host of gastric neuroses which might otherwise prove most perplexing.

A few years ago the importance of heart lesions was determined entirely by the murmurs heard, and the prognosis was often based upon their intensity. The part the muscular structure played was recognized later, when it was observed that the feeblest murmurs were frequently associated with the most fatal conditions, while those most loud were often heard in conditions of comparatively little importance. Physicians then began to appreciate the work of the heart muscle, and to understand that valvular lesions were in themselves of little importance, provided the cardiac muscular structure was efficient and fully compensated for the lesion. Muscular weakness, however, was seen to be a condition of the most serious import, as the organism had no means to make good such impairment.

What has occurred in the consideration of the diseases of the heart has also recently taken place in the comprehension of the pathological conditions affecting the stomach. For many years, attention had been given almost entirely to the study of the gastric secretions and their modifications, while the motility of the stomach until recently has received no consideration. Although the functions of the stomach are somewhat more complex than those of the heart, the conditions, while not so self-evident, are so similar as to justify the use of this comparison.

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*Read before the Albany County Medical Society, April 18, 1900.

The functions of the stomach are, in a general way, the secretion of the gastric juice, its ability to absorb, and its power of expulsion of, the food thoroughly incorporated with the gastric secretion, into the duodenum. The first is due to the activity of the gastric glands, the second is probably a form of osmosis, and the third depends upon the integrity of the muscular tissue.

That the secretory and absorptive powers of the stomach are not absolutely essential to health, is shown by the fact that people have gained in weight and health after total removal of the stomach, and that many persons, seemingly in perfect health, have absolutely no secretion from the gastric glands (Achylia gastrica).

Impairment of motility, even when slight, induces marked gastric symptoms, and complete failure would necessarily be fatal.

If the muscular power of the stomach is too weak to expel its contents through the pylorus, or if the resistance at the pylorus is so increased as to prevent this expulsion in the normal time, an impairment of the motility of the stomach has occurred. This impairment manifests itself by dilatation of the stomach and by retention of food beyond the normal period.

The first step is to diagnosticate a disorder of motility by the presence of these changes, and then to determine its form, whether primary or secondary, *i. e.,* due to muscular weakness* or to obstruction at the pylorus. It would consume too much time to consider those cases of moderate motor insufficiency (atony) where the muscular changes are slight. Only conditions showing well-marked lesions will be discussed.

Acute dilatation of the stomach, although its occurrence has been denied by many clinicians, certainly occurs, even though rarely. Ewald has reported a typical case due to over-eating in the convalescence of typhoid fever, and some cases have been recorded due to an acute stenosis from a sudden twisting of the pylorus. The common form, the chronic dilatation of the stomach, the lesion which is practically always encountered, is due, either to a primary muscular weakness, or to a mechanical obstruction at the pylorus or adjacent to it.

If the condition is strictly myasthenic, the pylorus is normal in calibre; but the gastric muscles are so atrophied, often showing fatty or colloid degeneration with interstitial gastritis, as to be unable to force the gastric contents in the normal time through the pylorus, with a consequent resulting dilatation and retention similar to the condition in myocarditis. If a mechanical obstruction at the pylorus is present, the muscle, at first of normal strength, hypertrophies in order to overcome the stenosis, and later becomes weak and undergoes atrophy with marked dilatation and retention similar to the condition in stenosis of a cardiac orifice.

The symptoms, whatever the cause, are much in evidence, namely, pressure and fullness after eating, a feeling of tightness, rumbling and splashing in the region of the stomach, nausea, belching, vomiting, epigastric sensitiveness, cramplike pains; constipation, great thirst and diminished secretion of urine—all due to retention and the fermentation which accompanies it.

Of these symptoms the vomiting, especially of food eaten days before, markedly sour and rancid and showing the three well-known layers, the intense thirst and the diminished diuresis, are the most characteristic. The intense thirst is due to the fact that the stomach absorbs practically no water. The more water drunk, the greater the dilatation and the more aggravated the condition. The diminished diuresis is due to the same cause, namely, the interference with the flow of fluids into the intestines and their lessened absorption. Boas determines approximately the degree of dilatation by the diminution in the daily quantity of urine. When it is reduced to 1,000 cubic centimetres, the dilatation is of the first degree; if to 500 cubic centimetres, it is of the second degree; and if less than 500 cubic centimetres it is of the third degree.

There is no absolute measure of the size of the stomach, and it may show great variations within normal limits. It usually extends from the sixth or seventh rib in the left mammillary line to about one inch above the level of the umbilicus. Its width is about twice its vertical diameter. (Fig. 1.)

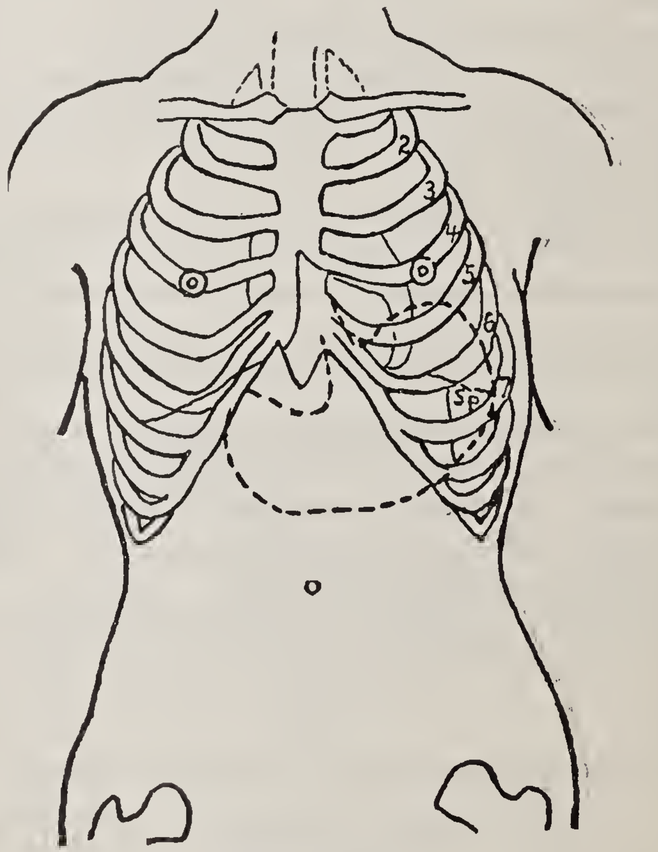

Fig. I

Often, inspection alone when the abdominal wall is thin and flaccid shows a prominence due to dilatation, which contrasts with the rest of the abdomen. Where there is much fat, strongly contracted abdominal muscles, or when the intestines lie in front of the stomach, the diagnosis cannot be made by inspection. Peristaltic movements of the abdominal wall, spontaneous or induced, assist in the diagnosis of stenosis, although these movements may also be caused by intestinal stenosis.

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*Although some authorities have asserted that gastric dilatation is never the result of muscular weakness alone, it is certain that clinically the muscular weakness seems to be the predominating, if not the sole, cause.

Careful percussion may often indicate the borders of the stomach. Splashing is of great value, although it is not always possible to determine if the splashing occurs directly beneath the fingers or at a greater or less distance. The importance of splashing depends upon the time at which it is obtained. It is often present in the healthy after the ingestion of large quantities of fluids, and then indicates simply the presence of liquid and air in the stomach, with relaxed abdominal wall. When it is obtained two hours after a test breakfast or seven hours after a test meal, it indicates an affection of the motility of the stomach. Its absence does not exclude dilatation, as flaccid abdominal walls are necessary for its production, while much fat, and reflexly contracted abdominal walls, prevent it. Electric illumination, though of value, need not be considered, as, it requires special apparatus. When inspection, palpation and percussion do not yield satisfactory results, the condition present may be made evident by dilating the stomach with a gas. For this purpose a Seidlitz powder may be used, the patient swallowing each part of the powder separately in half a glassful of water. The carbondioxide thus produced will usually dilate the stomach sufficiently to make its outlines evident. The disadvantage of this method is, that the operator has no control over the gas, and therefore satisfactory results are not always obtained. It has the merit that it does not necessitate the passage of a stomach tube. Many clinicians now dilate the stomach with air forced by a double rubber bulb through a stomach tube. This method enables the operator to control the quantity of air pumped into the stomach, and to immediately remove it if disagreeable symptoms ensue.

The most reliable sign, however, of motor insufficiency, is the presence of food in the stomach when that organ should be normally empty.

A simple method which saves time is to have the patient eat in the evening, grapes, raisins, or berries, as cranberries, and swallow their seeds, and the following morning take a test breakfast. The removal of the stomach contents will permit an analysis of the chemical constituents and determine the motility of the stomach from the presence or absence of the seeds. This test indicates, however, a rather severe impairment of motility. When examination shows the presence of food two to three hours after a test breakfast, or from six to seven hours after a Leube test meal of soup, meat, potatoes and a roll, then a motor insufficiency is determined. If the use of the stomach tube is impossible, then a test may be made by administering one gramme of salol. If it is not detected in the urine until later than seventy-five minutes after ingestion, and continues to be present after from thirty to thirty-six hours, then a motor insufficiency is present.

No difficulty should be experienced in distinguishing dilatation from megalogastria, the physiologically large stomach, as this latter condition shows no impairment of motility.

Gastroptosis, descent of the stomach, may cause some confusion if attention is paid only to the position of the greater curvature. If the lesser curvature has also descended, while motility is unimpaired, the condition of gastroptosis is determined. When these two conditions are combined, the diagnosis is more difficult and may be perplexing. Fortunately, it is not the size and position of the stomach which is of importance, but the degree of its motor impairment.

Having determined gastric insufficiency by the dilatation of the stomach and the retention of food, the question arises, What is its nature? Is it myasthenic, due to a primary muscular weakness, or stenotic, the result of a mechanical obstruction at the pylorus?

When the condition is purely myasthenic, the pylorus is normal, but the muscles are thin, atrophic, and show fatty or colloid degeneration. When there is a mechanical obstruction, a stenosis at or near the pylorus is present, and the muscles at first hypertrophy, then later undergo atrophic changes.

The myasthenic dilatation is commonly developed from a simple atony, and the most important cause is a chronic hypersecretion which induces dilatation by the prolonged and incomplete digestion of the starches and the accompanying spasm of the pylorus inducing retention. It may be the result of:*

1. Atrophy with fat and colloid degeneration of the gastric muscle in severe general diseases.

2. Destruction of the muscles by the corrosive action of ingested poisons, by extensive ulcerative processes, by interstitial and perigastric fibrosis, or by carcinomatous infiltration.

3. Paresis of the gastric nerve.

4. Mechanical difficulties from displacement of the stomach.

When a tumor is palpable it is an easy matter to distinguish the myasthenic condition from that due to pyloric obstruction. When no tumor is palpable the diagnosis may present the greatest difficulties. The symptoms, although similar, are usually more intense in mechanical obstruction. The marked rapid and progressive emaciation, the excessive vomitus, the striking diminution in diuresis, the obstinate constipation, the active peristaltic and antiperistaltic movements, are of value for the diagnosis of stenosis. When progressive improvement follows the indicated treatment, and this continues for a time after the discontinuance of the treatment, a myasthenic condition is probably present. If, however, washing of the stomach and a careful diet give only temporary improvement, and the wash water always contains quantities of undigested food, this points to a stenosis. This stenosis is usually due to a malignant growth involv-

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*Lindner-Kuttner. *Die Chirurgie des Magens.*

ing the pyloric region or duodenum, or to a cicatrix following an ulcer in the same regions. The unusual internal causes of obstruction—polyps, cysts, gall-stones, directly or by adhesive inflammation, and the uncommon external causes—tumors of the adjacent organs and cicatricial bands due to perigastritis or perityphilitis, must be kept in mind.

Time will not permit the consideration of the diagnosis of benign from malignant obstruction. The duration of the disease, its course, the age of the patient, the presence or absence of a tumor, the character of the hæmatemesis, the œdema, the swelling of the cervical glands, the metastases, and the chemical and microscopical examination of the stomach contents, will in the great majority of cases lead to a correct diagnosis. In spite of every care, however, and even after the most painstaking examination, the diagnosis of some cases will remain obscure.

As the success of any operative procedure, and many of these cases require such treatment, depends upon the strength of the patient, the degree of dilatation present, the extent of the morbid involvement, and the possibility of recovery of the disturbed functions of the stomach, all of which are markedly affected by the time of diagnosis, it is incumbent upon us to seek to make a diagnosis, or at least to recognize the possibility of a serious lesion, at the earliest possible moment.

Fortunately, this requires no expert skill, no special knowledge of chemical reactions, no complicated apparatus, no uncommon reagents. It simply necessitates that the physician should use the same care and thoroughness in the examination of gastric disorders that he does in other diseases, and that he should have clearly in mind what he is seeking to determine. No one would think of treating disease of the heart, lungs, or any other organ, without making an examination and endeavoring to determine the pathological condition; why should gastric disorders be treated at haphazard, and largely on guess?

In conclusion, in all cases of obstinate gastric trouble, the possibility of a motor insufficiency should be kept in mind, the condition of motility determined, and, if impaired, its cause ascertained, in order that no precious time may be lost to the patient in inaugurating the proper line of medical or surgical treatment.

To-day the danger of an exploratory incision is so slight as to justify us in recommending such procedure early in all cases in which the gastric motility is markedly impaired, and which do not yield readily to the appropriate medical treatment.

(To be concluded.)

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The Clinical Society of Washington, D. C., resumed its meetings on Monday evening, October 8th, and elected officers for the ensuing year as follows: President, Dr. Charles C. Marbury; vice-president, Dr. Duff G. Lewis; secretary and treasurer, Dr. J. Carlisle De Vries.

THE SUBARACHNOID INJECTION OF COCAINE.

By J. E. MASSEY, Jr., M. D.,
ROCK HILL, S. C.

Having heard and read reports during the past six months concerning the subarachnoid injection of cocaine as a method of producing general anæsthesia of the lower half of the body, and also having heard of the performance of both major and minor surgical operations by the use of this method, I thought at some time when opportunity offered to test its practicability.

My apology for writing this report of a case is that I have seen nothing concerning this subject in any of the medical journals from the physicians and surgeons of the South, although such cases may have been reported.

A short time since I read a report by Dr. J. B. Murphy, of Chicago, in which he cites a long series of operations with the use of this method of anæsthesia, and his results were so wonderful that, twenty or thirty or perhaps only a few years ago, to have heard such reports and been told that a hip-joint amputation, or a hysterectomy or nephrectomy, could be performed and an interesting conversation carried on at the same time with the patient, would have sounded like a fairy tale or one worthy to rival those of Baron Munchausen. But these results were so remarkably successful and the technique of this method of anæsthesia was so minutely described by Dr. Murphy, that, at the suggestion of my father, Dr. J. E. Massey, Sr., I decided to try its efficacy as an anæsthetic in the operation for hæmorrhoids. I have the honor of presenting the following report of the case, hoping that it will contribute its small share toward the advancement of medicine and surgery.

Peter S., a colored man, aged forty-five years, well developed and muscular, gave a history of syphilis contracted twelve years ago, for which he had taken thorough treatment for a while, but not long enough.

He gave a history of having been afflicted with piles for the preceding ten or fifteen years. On examination he was found to have both external and internal piles in an aggravated form, and also on the posterior wall of the rectum and just above the sphincter there was found an ulcer of about the size of a quarter of a dollar; and the patient wished to be operated upon at once, as he was suffering great pain.

On the morning of September 22d, after having prepared the patient by a cathartic given the previous night, followed by an enema in the morning, I operated upon him, several physicians of the city being present to see if the anæsthesia would be successful in the case.

The patient was placed upon a Buchanan operating table, and the site of the operation cleansed as carefully as possible. Then he was requested to sit up and lean forward, thus putting the muscles of the back in tension. The site of injection of the cocaine was rendered sterile, and then with a sterile syringe carrying a needle three inches long, thirty minims of a two-per-cent. solution of cocaine, which had been rendered sterile by placing it in a water bath and allowing it to boil for fifteen minutes previously, were carefully injected into the subarachnoid space between the fourth and fifth lumbar vertebræ. The point of the needle was entered a little to the right of the midpoint between the spinous processes of the fourth and fifth lumbar vertebræ, and directed a little inward and slightly upward, and then the needle was pushed in a distance of about two inches and a half, or until a few drops of the cerebrospinal fluid were seen to escape from it, and then the syringe was attached thereto, and the solution slowly injected.

The operation was then begun, about twelve minutes after the solution was injected, but possibly it could have been started sooner. The patient was placed in the median lithotomy position, and the parts were again cleansed. The operation was by ligation, which I prefer, each pile being transfixed with a needle, armed with a double silk ligature, and tied off in separate halves, and one of the ligatures then thrown around the whole pile, so as to prevent hæmorrhage if a vein of much size had been opened by the needle, and stretching of the ligatures.

It is a well-known fact that, if any one operation is painful and requires a profound anæsthesia with chloroform in order to keep the patient from flinching and groaning, that operation is the forcible dilation of the sphincter ani. As soon as the patient was in position, the parts were cleansed, then, inserting the thumbs into the anus, I very forcibly dilated the sphincter muscles; and while this was being done the patient not once flinched, and in reply to a question as to whether it hurt him, he answered: "Nothing is hurting me; I can just feel his fingers touching me."

And so it was during the whole operation; he repeatedly said he felt no pain at all. During the operation ten double and twenty single ligatures were used in tying off the hæmorrhoids, and the margins and floor of the ulcer in the rectum were lightly touched with lunar caustic. I was in no hurry to complete the operation, as the anæsthesia was so profound, and therefore took an hour and three-quarters in its performance.

All during this time the patient was very talkative, conversing with the doctors around him in an ordinary manner, and also smoking a cigar given him by one of the doctors. His temperature never varied from normal, and his pulse kept up a uniform rate of 68 all during the operation and for five or six hours afterward, and at no time during or after the operation did he complain of any nausea or epigastric pain. After the operation he complained of a slight headache. As I said, the operation lasted an hour and three-quarters, and there was no sensibility to pain in the rectum or any flinching from a pin stuck into the skin of the abdomen or lower extremities for three hours and a quarter longer, thus there was produced a total anæsthesia for five hours, and therefore I am forced to conclude that probably ten or fifteen drops of a two-per-cent. solution of cocaine would have sufficed, but, to render assurance doubly sure, I used thirty drops.

The T-bandage and dressing were applied, and the site of the injection was sealed with collodion, and the patient even then expressed the desire to walk across the room to his bed, as he said he was feeling "all right" and needed no assistance, but of course this was not permitted.

On October 1st, nine days after the operation, the patient was walking around, free from pain.

As an anæsthetic for operations upon the lower half of the body, the subarachnoid injection of cocaine in the lumbar region, seems to be, from reports submitted, eminently successful and free from the dangers of chloroform and ether and their disagreeable after-effects, and the precise limitations of this method are yet to be defined.

We all know the constant care and watchfulness which the anæsthetist has to exercise in the giving of chloroform or ether, but in this method we seem to have something by which the operator can first anæsthetize his patient, or perhaps I should say first produce inferior semi-corporeal anæsthesia, and then operate.

Now, I have always been taught and do believe that cocaine is a dangerous drug, but perhaps all the bad effects of its use may be put under two classes: 1. Those of persons having a special idiosyncrasy for cocaine. 2. Those accidents caused by abuse of the drug by its overuse, or its use in too strong solution. And perhaps, if this drug was used at all times with proper care as to its dose, we should have very few complaints against its employment as an anæsthetic.

Correspondence.

LETTER FROM THE PHILIPPINES.

The Prospective Reduction of the Forces in the Islands.—The Pathological Laboratory.—Appointments to the Medical Corps.—Recent Deaths of Medical Officers.

PHILIPPINE ISLANDS, *August 24, 1900.*

WHILE the War Department has announced its intention of having the volunteer troops in the Philippines returned to the United States during the coming winter and spring, it cannot be the intention to replace them by new regiments, because it has been said that straws show in which way the wind blows, and the chief surgeon of the division has recently directed his subordinates to exercise the greatest economy in the expenditure of medical supplies, for the reason that his semi-annual requisitions had been cut down fifty per cent. in the office of the surgeon-general. As that is the case, the surgeon-general must be cognizant of a proposed great reduction of force in these islands; otherwise his office would have allowed the full quantity of supplies asked for by the chief surgeon of this division, one of the oldest and most experienced surgeons in the army, because there is no market here in which to purchase medical supplies in case they should be required in quantities greater than those furnished by direction of the surgeon-general's office, and the surgeon-general has heretofore given the greatest latitude to his division surgeons, so that there might be no lack of everything needful for the care and treatment of the sick. In August and November, 1898, when there was so much undesirable criticism of the administration of the medical department, circulars were issued directing that hospitals should be liberally supplied with all articles necessary for the treatment and the comfort of the sick; and it is not believed that because these islands are so remote it is intended to take any retrograde step in the matter of furnishing medical supplies. Nor is it to be supposed that faith-cure is to become a feature in the treatment of sick soldiers.

There is no want of funds, because the act of May 26, 1900, appropriated two million dollars for the purchase of hospital and medical supplies and for all other necessary miscellaneous expenses for the medical department of the army; and the annual report of the surgeon-general for 1899 showed that the expenditures for the medical and hospital department were $1,316,721.35, of which $1,047,065.11 were for medical supplies proper, so that fifty per cent. more supplies could be purchased, and yet the expenditures would not equal the amount appropriated. So, with ample funds available, and the unlikelihood that anything would be done to subject the medical department to criticism, or to inflict any hardship on the sick, the action that has been taken justifies the inference that there will be a material reduction in the number of troops on duty in these islands, and that within a short time.

The prospect that supplies may be stinted has given rise to some undesirable economies. It has been directed that reports be made as to whether or not bandages, etc., are washed and used a second time. As the washing in these islands consists in beating the articles to be cleaned with stones or wooden paddles, and not in boiling and rubbing in hot water, bandages and dressings would not be disinfected, and their use a second time would entail risk of infection. This ancient and false economy of dressings has been abandoned for so many years by first-class hospitals that it seems unfortunate that the army medical department should seek to perpetuate it, especially where suppuration is so prevalent and facilities for disinfection are so limited as in the Philippines.

The establishment of a pathological laboratory is at last an accomplished fact, and an efficient surgeon, who graduated at Johns Hopkins, is to be placed in charge of the work, which should produce some valuable results.

The recent session of the examining board appointed to examine candidates for the army medical corps who are serving in volunteer regiments, and as acting assistant surgeons in these islands, has resulted in the selection of about fifteen candidates. It is to be hoped that all these gentlemen will receive commissions, as well for their own worth and military service as for an encouragement to others who like the service but have hesitated to apply for examination.

Two acting assistant surgeons died here after short sojourns. Dr. Charles Roemmelt, who arrived here in April, died on July 20th at Tobaco, Province of Albay, of malarial fever. Dr. Frederick Hulseburg was killed on August 2d, while en route to Santa Cruz from Majayjay, Luzon. He was with a company of infantry which was attacked by about a hundred and fifty insurgents. It is said he was the son of an English army surgeon; he was educated in New York State, graduated from the medical department of Yale University, and arrived here on June 16th.

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The Western Surgical and Gynæcological Association will hold its next meeting in Minneapolis on December 27th and 28th.

Therapeutical Notes.

Enemata of Cod-liver Oil.—According to the *Gazzetta degli ospedali e delle cliniche* for August 30th, Zenner uses the following formula:

℞ Pure pancreatin	75 grains;
Oxgall	7½ "
Sodium chloride	22½ "

M.

Dissolve in 12½ drachms of water and emulsify with 75 ounces of white cod-liver oil; then add three drops of eucalyptus oil.

Suppositories for Chronic Prostatitis.—*Revue médicale* for July 18th ascribes the following to A. Freudenberg:

℞ Sulphichthyolate of ammonium	from 4½ to 11¼ grains;
Cacao butter	52½ "

M.

For one suppository.

For Tinea Tonsurans.—Dr. Henry Waldo (*British Medical Journal,* September 29th) advises the production of a slight amount of folliculitis by using a liniment containing croton oil, a drachm to an ounce, and if necessary gradually increasing the strength. He gives the following formula:

℞ Oil of croton	1 drachm;
Precipitated sulphur	½ "
Carbolic acid	½ "
Oil of almonds	q. s.
Lanolin	to 1 ounce.

M.

Epilation should be practised daily.

Ergotin in Pneumonia.—At the Paris International Medical Congress, Dr. Kleczowski, of Grand-Fresnoy, said that the use of ergotin in daily doses of from 45 to 75 grains, commencing at once with the rigor, and before the appearance of bronchial breathing, caused the evolution of the disease in four or five days. If its use was begun later, however, it did not appear to shorten the febrile stage, although it lessened the fever in degree, relieved the dyspnœa and soothed the delirium. Dr. Kleczowski had not seen a failure under this treatment in eighteen years, save in diabetic subjects.

For the Dyspepsia of Chloro-anæmia.—According to the *Progrès médical,* the following prescription is much in vogue in Vienna:

℞ Artemisine	1-60th of a grain;
Crystallized quassine	1-60th " " "
Protoxalate of iron	1½ grain.

M.

To make one lozenge. Four lozenges may be taken daily, two before each meal. The color is said to be restored invariably between the ninth and tenth day. The combination of artemisine with crystallized quassine stimulates powerfully the muscular fibres of the digestive canal. This formula is known in France as the *Dragées de fer Briss.*

Small Doses of Sodium Sulphate as a Laxative.—At the Paris International Medical Congress, Dr. Manquat, of Nice, extolled the use of from 60 to 120 grains of sulphate of sodium taken fasting in the morning in a large glassful of water at 100° F. as a laxative.

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A WHOLESOME BIT OF OPTIMISM.

In his presidential address, delivered last week before the Mississippi Valley Medical Association at its meeting in Asheville, Dr. Moyer expressed an optimism which we cannot but regard as in the highest degree wholesome, in view of the gloomy views that prevail with many as to a number of matters bearing upon the interests of the medical profession and the future of medicine in the United States. We have no intention of giving a résumé of the address, but shall limit ourselves to a few of its features.

In the first place, as to the question of specialties, Dr. Moyer cited an amusing example of the confusion that may sometimes result from too strict attention to one's own specialty. A patient was sent to his general medical clinic from the ophthalmic department, to which he had been directed because he was unable to close the lids of one of his eyes, the transfer having been made for the reason that the ophthalmologists could find no condition of the eye that would account for the paralysis. He, Dr. Moyer, made out that the case was one of facial paralysis due to ear disease, and in turn referred the patient to the otological department. He augured that such blind adherence to the narrow limits of a specialty as had led the oculists into overlooking the ear trouble in this instance was fast disappearing and was destined soon to give way to a more catholic survey of medicine on the part of specialists. We think, indeed, that the necessity for such a broadening of the field of vision is rapidly meeting with more realization by the specialists.

Another point that received attention was the alleged undue multiplication of medical societies. The speaker was quite sure that the allegation was not well founded, for he argued that a society for which there was no legitimate sphere of action could not long continue its useless existence. This contention seems all but incontrovertible. In a like vein Dr. Moyer sought to dispel any apprehension that might be felt on account of the present multiplicity of medical journals and medical schools, both of which would cease to exist to excess when the process of the survival of the fittest had worked itself out with the former, and when students came to a general realization of the incapacity of the inferior schools to enable them to obtain the license of any of the State examining boards.

All this is wholesome teaching. There are many persons who are too ready to think that, because certain undesirable conditions exist, matters are going to the dogs. This is as true in regard to medicine as it is of politics and of military operations, or, indeed, of any other phase of human activity. It is better to look at the bright side of affairs than to pine over flaws, however glaring they may seem to be. The last quarter of the century has seen so many discreditable conditions remedied that we may well take heart and work with renewed zeal to push the task of improvement to the closest possible approach to perfection.

THE TEST OF THE MOSQUITO MALARIA THEORY ON THE ROMAN CAMPAGNA.

Early in the present year it was widely announced through the medical press of the world that a crucial test of the theory of the transmission of malarial disease by mosquitoes was to be made on the Roman Campagna. Malarial fever is very rife in that locality, and all the permanent inhabitants suffer from malarial cachexia, while all strangers that reside there for any length of time contract the disease. That well-known authority on the subject, Dr. Patrick Manson, reports in the *Lancet* for September 29th the result of the experiment up to the present time. Five healthy individuals have lived in a hut on the Campagna since early in July without contracting the disease, the only precautions taken being protection against mosquito bites. The windows and doors of the hut are fitted with mosquito-netting screens, and mosquito nets are placed around the beds. The dwellers in the hut go around the country freely in the daytime, but are careful to be within doors from sunset to sunrise. Not a grain of quinine has been taken by them. Dr. Manson also reports the following apparently conclusive experiment: Mosquitoes infected with the parasite of benign tertian malarial fever were sent from Rome to England, and were allowed to feed upon the blood of a perfectly healthy individual (Dr. Manson's son, who had never had malarial disease). Forty mosquitoes, in all, were allowed to bite him between August 29th and September 12th. On September 14th he had a rise of temperature, with headache and slight chilliness, but no organisms were found in the blood. A febrile paroxysm occurred daily thereafter, but the parasites did not appear in the blood until September 17th, when large numbers of typical tertian parasites were found. They soon disappeared under the influence of quinine.

Dr. Manson concludes his report by stating that "the solution of the malaria problem lies (1) in avoiding the neighborhood of native houses, the perennial source of malaria parasites; (2) in the destruction, so far as possible, of the breeding pools of *Anopheles;* and principally (3) in protection from mosquito bites."

It may be considered as proved that the mosquito bite forms one of the modes of entry of the malarial parasite into the human body. That it is the sole mode of infection cannot be quite so positively asserted. It is not specifically stated whether the same water was used for drinking purposes by the inhabitants of the hut as by the native inhabitants of the Campagna. It does not seem probable that all cases of malarial disease can be due to mosquito bites, and water-borne infection doubtless plays a large part, even though, so far, we have not been able to demonstrate the malarial parasite in water.

THE ÆTIOLOGY OF RHEUMATIC FEVER.

The determination of the cause of rheumatic fever has long been a favorite goal of bacteriologists. The disease, with its abrupt onset, acute course, and spontaneous termination, is highly suggestive of a bacterial origin. Its bacteriology is at the present time, however, most complicated and uncertain. Bacilli, staphylococci, and diplococci have been isolated by different observers in cases of rheumatic fever, and confidently asserted to be its cause. The various hypotheses may be summed up as follows: 1. There is no specific micro-organism of rheumatic fever, but it is a form of septicæmia due to staphylococcous and streptococcous infection. 2. Rheumatic fever is caused by a specific diplococcus. 3. Rheumatic fever is caused by a specific bacillus. 4. It is caused by a mixed infection of bacilli and cocci. 5. It is not a disease *sui generis,* but a particular reaction of the tissues to various infections.

The latest observers, Dr. Poynton and Dr. Payne, incline to the second view. In the *Lancet* for September 22d and 29th they describe a diplococcus which they have isolated from the blood, the heart valves and wall, the pericardial fluid, etc., in eight cases of rheumatic fever. They have also been able to demonstrate this micro-organism in the tissues in eight other cases of rheumatism. Of the greatest interest is the fact, that when pure cultures of this organism were injected into the veins of rabbits the animals were attacked with arthritis corresponding to that seen in rheumatic fever, and the diplococcus was demonstrated in the joint fluid. Further, typical marginal inflammation of the valves developed, causing a systolic cardiac murmur and other symptoms of cardiac disease. In one case the joints of the rabbit were not affected, but three weeks after its inoculation a systolic cardiac murmur was noticed. On killing the animal, a typical tricuspid and mitral valvular inflammation was found, and the diplococcus was isolated from the heart valves. It was also found in the brain and pia mater in a case of chorea with a slight valvular lesion.

This diplococcus consists of minute cocci associated in pairs, growing in chains in liquid media, in grape-like masses on solid media. It is a facultative anaerobe, and grows best in a medium of milk and bouillon slightly acidified with lactic acid. It stains well with all aniline dyes, and is decolorized by Gram's stain. The observers believe it highly probable that this organism will prove to be the cause of all cases of rheumatic fever which conform to the usual type of the disease.

CODEINE IN THE TREATMENT OF NEURASTHENIA.

Drugs have not counted for much in the treatment of neurasthenia, but Dr. Dornblüth (*Therapeutische Monatshefte,* July; *Berliner klinische Wochenschrift,* September 10th) speaks enthusiastically of the use of codeine, especially in cases in which insomnia is a feature. He says, however, that it does not act as a narcotic, but as a direct roborant of the nervous elements. He gives doses gradually increased to a third of a grain five times a day during a period of from four to six weeks, and then gradually reduces them.

POISONING BY PARALDEHYDE.

Dr. Lovell Drage publishes in the *Lancet* for September 22d a case of death from paraldehyde. The victim was a woman forty-six years of age. She had been in the habit of using drugs of various kinds to excess. The drug was ordered by a physician in doses of two teaspoonfuls in a wineglassful of water thrice during the night; but it was shown at the inquest that as much as thirteen drachms of the drug had been taken in twenty-four hours. There appears to be no doubt that the patient far exceeded instructions; but we can hardly think it right to intrust any drugs of that class in bulk to the patient's own possession, or even that a "harmless" soporific, as paraldehyde has often been considered to be, should be obtainable, save on a physician's prescription with limitations as to refilling.

MORBID AND TOXIC PERVERSIONS OF THE COLOR SENSE.

Dr. Hilbert (*Memorabilien,* 1900, Heft i; *Berliner klinische Wochenschrift,* September 10th) records the occurrence of yellow vision after a snake-bite, the first instance recorded, he says, and enumerates the following causes of yellow vision: Santonin, picric acid, the external application of chromic acid, carbon-dioxide poisoning, sodium salicylate, and jaundice. Red vision is observed after the ingestion of hyoscyamus seeds or duboisine, and violet vision in mushroom poisoning and after taking Indian hemp.

ETHER IN THE TREATMENT OF URÆMIA.

It is as a diuretic rather than for its stimulating action that Dr. Lemoine (*Memorabilien,* 1900, Heft i; *Berliner klinische Wochenschrift,* September 10th) recommends ether in the treatment of uræmia, particularly when it is accompanied by dyspnœa. He gives half a drachm subcutaneously and a coffeespoonful by the mouth every hour until diuresis occurs. He says these doses are not dangerous, but the injections are painful, and, to guard against gangrene of the skin, they should be thrown deep into the tissues.

THE RAW FOOD FAD.

In these days of fads coming and going in rapid succession there may be safety in numbers. It may at least be said of the uncooked food craze that it is not very likely to prove of any great positive injury, since, as we understand, its votaries do not go to the extent of recommending raw meat, so that they will probably escape trichiniasis.

THE SECRETARY OF THE MICHIGAN STATE BOARD OF HEALTH.

A startling piece of action is chronicled elsewhere in our columns, namely, the passage of a resolution by the board calling upon its secretary to resign, and not the least surprising circumstance attending the adoption of the resolution was the announcement, made by its introducer, that the president of the board did not approve of the action. The secretary is Dr. Henry B. Baker, of Lansing, a gentleman who has done much to further intelligent sanitary work in his State. We should be very sorry to hear of the acceptance of his resignation.

TYPHOID FEVER IN CONNECTICUT.

The secretary of the State Board of Health, Dr. C. A. Lindsley, reports that during the month of September 228 cases were noted in 54 localities, including 3 in Danbury, 4 in Meriden, 11 in Norwich, 4 in South Norwalk, 12 in Stamford, and 10 in Waterbury. These are all cities, and the total number of cases, 44, reported from them seems to show a greater prevalence of the disease in the country towns than in the cities, which is doubtless to be accounted for by the fact that greater precautions are taken in cities than in smaller places.

THE TRI-STATE MEDICAL SOCIETY OF TENNESSEE, ALABAMA, AND GEORGIA.

Last week's meeting, in Chattanooga, admirably presided over by Dr. Kime, of Atlanta, was made exceptionally interesting by a number of visitors who had read papers a few days before in Asheville, and repeated them in Chattanooga. This clever provision, we presume, is to be credited to Dr. Bogart, who had charge of the programme.

MRS. CHADWICK'S CARRIER-LITTER.

Some of the advantages of this device, which was described by Dr. Russell Bellamy in our issue for September 29th, notably its manageability in narrow and tortuous passages, were well shown in a trial that took place at the Forty-second street station on Monday, October 15th, in the presence of a number of railway and parlor-car officials. A Wagner sleeping-car porter weighing 260 pounds was carried without discomfort by two men through a passage in the car that was twenty-two inches wide and about twelve feet long. Mrs. Chadwick's invention, it seems to us, must find a wide field of usefulness in civil life as well as in war.

THE ASHEVILLE MEETING OF THE MISSISSIPPI VALLEY MEDICAL ASSOCIATION.

Although last week's meeting in Asheville was not marked by a large attendance, the various sections of the country were adequately represented, and the programme was diversified and gave scope for much originality of expression. The social features of the occasion were such as could hardly have been conjured up in any less favored section of the country than the mountains of North Carolina. Our brethren in that region are men of stout and warm hearts; men, moreover, who have made their impress on the profession at large.

ITEMS.

A Preparatory Military School has been founded by the Austrian Government for the special military instruction of surgeons entering the military service. The course of instruction covers one year and all aspirants for commissioned rank in the medical corps are required to attend.

Infectious Diseases in New York.—We are indebted to the Sanitary Bureau of the Health Department for the following statement of cases and deaths reported for the two weeks ending October 13, 1900:

Diseases.	Week end'g Oct. 6		Week end'g Oct. 13	
	Cases.	Deaths.	Cases.	Deaths.
Typhoid fever	104	15	139	27
Scarlet fever	87	2	61	4
Cerebro-spinal meningitis	0	6	0	3
Measles	30	4	41	2
Diphtheria	210	19	181	26
Laryngeal diphtheria (croup)	6	2	8	4
Tuberculosis	261	152	276	140

Marine-Hospital Service Health Reports.—The following cases of small-pox, yellow fever, cholera and plague were reported to the surgeon-general during the week ending October 12, 1900:

Small-pox—United States.

Nome, Alaska	Oct. 7	1 case, in barracks.	
Wichita, Kansas	Sept. 29—Oct. 6	1 "	
Cleveland, Ohio	Sept. 29—Oct. 6	10 cases.	
Philadelphia, Pennsylvania	Sept. 29—Oct. 6	4 "	

Small-pox—Foreign.

Prague, Austria	Sept. 8-15	1 case.	
Pernambuco, Brazil	Aug. 24-31		4 deaths.
Liverpool, England	Sept. 15-22	1 "	
London, England	Sept. 15-22	2 cases.	
Paris, France	Sept. 15-22		3 deaths
St. Etienne, France	Sept. 1-15	1 "	1 death.
Konigsberg, Germany	Sept. 8-15	2 cases.	
Vera Cruz, Mexico	Sept. 22-29		1 "
Odessa, Russia	Sept. 15-22	11 "	2 deaths
St. Petersburg, Russia	Sept. 8-15	9 "	5 "
Glasgow, Scotland	Sept. 21-28	22 "	3 "
Dawson, Yukon Territory	Sept. 8	Present.	

Yellow Fever.

Barranquilla, Colombia	Sept. 16-23		1 death.
Cartagena, Colombia	Sept. 1-14	3 cases.	3 deaths
Havana, Cuba	Sept. 22-29		19 "
Vera Cruz, Mexico	Sept. 22-29		10 "

Plague—Foreign and Insular.

Asuncion, Paraguay	July 21-28		2 "
Glasgow, Scotland	Sept. 15-22	3 "	2 "
Llandoff, Wales	Oct. 9		1 death. (Imported from Rosario.)

Cholera.

Singapore, Straits Settlements	Aug. 11-25		1 death.

Marine-Hospital Service.—*Official List of the Changes of Station and Duties of Commissioned and Non-commissioned Officers of the United States Marine-Hospital Service for the Seven Days ending October 11, 1900:*

Stoner, G. W., Surgeon. Granted leave of absence for seven days.

Banks, C. E., Surgeon. Four days of the leave granted by the Department letter of June 5th revoked.

White, J. H., Surgeon. Granted leave of absence for one month.

Woodward, R. M., Surgeon. Detailed to represent the Service at the meeting of the American Public Health Association at Indianapolis, October 22-26.

Cobb, J. O., Passed Assistant Surgeon. To proceed to El Paso, Texas, on special temporary duty.

Mathewson, H. S., Assistant Surgeon. Relieved from duty at Philadelphia and directed to proceed to San Juan, Porto Rico, and assume command of the Service, relieving Assistant Surgeon C. H. Lavinder.

Lavinder, C. H., Assistant Surgeon. Upon being relieved from duty at San Juan, Porto Rico, to proceed to Washington for orders.

Wilson, R. L., Assistant Surgeon. Relieved from duty at San Francisco and directed to proceed to Honolulu, H. I., and report to Surgeon Carmichael for duty.

Clarke, F. M., Acting Assistant Surgeon. Granted leave of absence for twenty days from October 15th.

Goldsborough, B. W., Acting Assistant Surgeon. Granted leave of absence for one day.

Tuttle, Jay, Acting Assistant Surgeon. Granted leave of absence for thirty days from October 24th.

Allen, G. C., Hospital Steward. Granted leave of absence for six days from October 22d.

Southard, F. A., Hospital Steward. Granted leave of absence for fifteen days from November 5th.

Appointment.

Marr, Harrington, of Tennessee, appointed acting assistant surgeon.

Resignation.

Douglass, Richard, Acting Assistant Surgeon, resigned October 7, 1900.

Naval Intelligence.—*Official List of Changes in the Medical Corps of the United States Navy for the Week ending October 13, 1900:*

Haas, H. H., Assistant Surgeon. Detached from the *Don Juan de Austria* and ordered home to await orders.

Lung, G. A., Passed Assistant Surgeon. Detached from the *Monocacy* and ordered to the Cavite Naval Station.

Morgan, D. H., Assistant Surgeon. Detached from the *Vermont* and ordered to the Pensacola Navy Yard.

Morris, L., Passed Assistant Surgeon. Ordered to the Naval Academy.

Murphy, J. A., Assistant Surgeon. Detached from the Pensacola Navy Yard and ordered to the Asiatic Station for duty on the *Don Juan de Austria.* To report at San Francisco, October 30th, for passage on the *Solace.*

Richards, T. W., Passed Assistant Surgeon. Detached from the *Indiana* and ordered to the *Alabama.*

Thompson, J. C., Assistant Surgeon. Detached from the *Monocacy* and ordered to the Cavite Naval Station.

Army Intelligence.—*Official List of Changes in the Stations and Duties of Officers serving in the Medical Department, United States Army, from September 29 to October 6, 1900:*

Agramonte, Aristides, Acting Assistant Surgeon, United States Army, is granted leave of absence for fifteen days, with permission to go beyond the limits of the division, in Cuba.

Corbusier, William H., Major and Surgeon. In addition to his duties as surgeon of the post of Fort Columbus, he will perform those of attending surgeon at these headquarters.

Hoff, John Van R., Major and Surgeon, United States Army, is relieved from further duty with the United States forces in China, and will proceed to San Francisco.

McLoughlin, Wharton B., Acting Assistant Surgeon, United States Army, will report to the commanding officer, battalion of the Twenty-fourth Infantry, for duty with that battalion, to relieve Holmes, Thomas G., Acting Assistant Surgeon, United States Army, who will report for temporary duty as transport surgeon on the *Hancock,* to relieve Williams, Robert E., Acting Assistant Surgeon, United States Army, who will proceed to Fort McDowell for temporary duty.

Stewart, W. J. S., Acting Assistant Surgeon, United States Army, will report to the medical superintendent of the army transport service, New York City, for temporary duty on the transport *Rawlins,* during the absence on leave of Orear, William B., Acting Assistant Surgeon, United States Army.

Tesson, Louis S., Major and Surgeon, United States Army, will proceed from Vancouver Barracks, Washington, to Portland, Oregon, and make a thorough sanitary inspection of the United States transports *Lennox* and *Thyra,* and return to his station.

New York State Medical Association.—The seventeenth annual meeting of the New York State Medical Association was held at the Academy of Medicine in this city on October 15th, 16th, 17th and 18th, a large number of members being in attendance. The following officers were elected for the ensuing year:

President, Dr. John A. Wyeth, of New York; secretary, Dr. Frederick Holme Wiggin, of New York; vice-president, Dr. A. A. Hubbell, of Buffalo; treasurer, Dr. E. H. Squibb, of Brooklyn; vice-presidents of districts, Dr. Charles B. Tafft, of Utica; Dr. John F. Wheeler, of Chatham; Dr. Theron A. Wales, of Elmira; Dr. William H. Thornton, of Buffalo, and Dr. J. C. Bierwirth, of Brooklyn.

The official programme of papers follows:

The Relation of Migraine to Epilepsy, by Dr. Alvin A. Hubbell, of Erie County; On the Analogy between the Nervous Conductibility and the Electric Conductibility, and their Relation to Functional Neuroses, by Dr. A. D. Rockwell, of New York City; Cocainism, by Dr. T. D. Crothers, of Hartford; The Treatment of Ichthyosis Hystrix by Electric Light, by Dr. George W. Goler, of Munroe County; Heart Complications in Rheumatism, by Dr. James J. Walsh, of New York County.

Symposium on Obstetrics: (1) Treatment of the Patient during the Weeks Preceding the Expected Confinement, by Professor Edward P. Davis, of Philadelphia; (2) Management of Normal Labor, Including the Use of Forceps, by Dr. Austin Flint, Jr., of New York County; (3) After-treatment of the Mother in Normal Cases, by Dr. George W. Jarman, of New York City; (4) After-treatment of the Child in Normal Cases, by Dr. Bernard Cohen, of Erie County; (5) Ophthalmia Neonatorum, its Pathology, Prophylaxis and Treatment, by Dr. John E. Weeks, of New York County; (6) The Major Obstetrical Operations from the Standpoint of a General Practitioner, by Dr. Edward Reynolds, of Boston; (7) Puerperal Sepsis, its Pathology and Treatment, by Dr. William R. Pryor, of New York County.

Symposium on the Blood: (1) Technique of Blood Examination, by Dr. Edward K. Dunham, of New York County; (2) Leucocytosis in Relation to Surgical Diagnosis, by Professor Joseph C. Bloodgood, of Johns Hopkins University; (3) Pernicious Anæmia, by Professor Alfred Stengel, of the University of Pennsylvania; (4) Leukæmia, by Professor C. Y. White, of Philadelphia; (5) Parasites in the Blood, by Dr. Leon T. LeWald, of New York County; (6) The Value of Blood Examination in the Diagnosis of Trichinosis, with a Report of Two Cases, by Dr. H. C. Gordinier, of Rensselaer County.

An Epidemic of Diphtheria Traced to a Milk Supply, by Dr. Chauncey P. Biggs, of Tompkins County; The Management of Diphtheria in Small Cities from a Bacteriological Standpoint, by Professor Veranus A. Moore, of Cornell University; The Tonsils as Portals of Infection, by Dr. Julius Ullman, of Erie County; The Present Status of Jonnesco's Operation, by Dr. Marcel Hartwig, of Buffalo; The Treatment of Pulmonary Tuberculosis, with Special Reference to the Climate of Arizona, by Dr. Clarence G. Campbell, of New York County.

President's Address: Umbilical Hernia, by Dr. E. D. Ferguson, of Rensselaer County.

Symposium on Tuberculosis: Tuberculosis, its General Ætiology, General Pathology and General Prophylaxis, by Professor Victor C. Vaughan, University of Michigan.

Special Surgical Tuberculosis: (1) The Pathology, Diagnosis, Special Prophylaxis and Treatment of Tuberculosis of the Nose and Throat, by Dr. Jonathan Wright, of Kings County; (2) Tuberculosis of the Eye, its Differential Diagnosis, Pathology and Treatment, by Dr. Charles Steadman Bull, of New York County; (3) The Pathology, Diagnosis, Special Prophylaxis and Treatment of Tuberculosis of the Ear, by Dr. Seymour Oppenheimer, of New York County; (4) Tuberculosis of the Lymphatic Glands of the Peritonæum, by Professor Maurice H. Richardson, of Harvard University; (5) The Surgical Treatment of Urinary and Uro-genital Tuberculosis, by Dr. Samuel Alexander, of New York County; (6) The Pathology, Diagnosis, Special Prophylaxis and Treatment of Tuberculosis of the Bones and Joints, by Dr. E. H. Nichols, of Boston; (7) The Pathology, Diagnosis, Special Prophylaxis and Treatment of Tuberculosis of the Skin and Superficial Fascia, by Dr. John A. Fordyce, of New York County; (8) The Pathology, Diagnosis, Special Prophylaxis and Treatment of Tuberculosis of the Female Pelvic Organs, by Professor John G. Clark, of the University of Pennsylvania.

The Operative Treatment of General Septic Peritonitis, by Dr. Irving S. Haynes, of New York County; The Differential Diagnosis of Ectopic Gestation, with Special Reference to Early Abortion, by Dr. Hiram N. Vineberg, of New York County; The Resources of Modern Minor Gynæcology, by Dr. A. H. Goelet, of New York County; Iris Prolapse (an Experimental Study), by Dr. William H. Bates, of New York County; Strabismus and its Management, by Dr. Julius H. Woodward, of New York County; Investigations upon Specific Corporeal Gravity and upon the Value of this Factor in Physical Diagnosis, by Dr. Heinrich Stern, of New York County; Aseptic Minor Surgery, by Dr. Douglas Ayres, of Montgomery County; Amputation at the Hip Joint—a report of two hundred cases in which the author's method of hæmostasis was employed, by Professor John A. Wyeth, of New York County; Report of Three Cases of Intestinal Obstruction Due to Meckel's Diverticulum, by Dr. John F. Erdmann, of New York County; Intraspinal Cocainization for the Production of Surgical Anæsthesia, by Dr. S. Ormand Goldan, of New York County; The Technic of Bloodless Work, by Dr. Robert H. M. Dawbarn, of New York County; Operative Treatment of Symblepharon by the Use of Thiersch Grafts, by Dr. Wilbur B. Marple, of New York County; Brief Comments on the Materia Medica, Pharmacy and Therapeutics of the Year Ending July 1, 1900, by Dr. Edward H. Squibb, Jr., of Kings County.

At the banquet, which took place on Wednesday evening, October 17th, at the Hotel Manhattan, Professor

Adler, who responded to the toast "Our Patient—the Public," said that the medical adviser was now taking the place of the spiritual adviser, which fact laid a great responsibility on the members of the medical profession. He referred particularly to the "moral morass" in this city, and urged upon the members of the medical profession to aid in the efforts at maintenance of a high standard of morality. The president, Dr. E. D. Ferguson, of Troy, acted as toastmaster at the banquet. Dr. J. W. S. Gouley replied to the toast of the New York State Medical Association, and Dr. Charles A. L. Reed, of Cincinnati, the president, and Dr. George H. Simmons, the secretary of the American Medical Association, spoke in response for that body. Dr. J. Solis Cohen, of Philadelphia, replied for the guests; Dr. H. O. Marcy, of Boston, for the New York Academy of Medicine; Mr. Joseph Howard, Jr., for the press; Mr. J. Taylor Lewis for the law, Mr. Henry Guy Carleton for the drama, and Dr. N. E. Brill for hospital alumni.

Remarks by Dr. Charles A. L. Reed, of Cincinnati, before the New York State Medical Association, Wednesday, October 17th.—Mr. President and Fellows and Members of the New York State Medical Association: It affords me extreme pleasure, as president of the American Medical Association, to acknowledge your cordial greeting. I recognize and accept it as an expression of filial devotion to the national organization which, for the time being, I have the honor to represent. My pleasure is intensified, however, because I find in your charter, a copy of which has been placed in my hands by your efficient secretary, a declaration of objects or principles which appeal to me with peculiar force. They are more comprehensive than those usually embraced in the fundamental laws of medical associations. The first two that are enumerated—the advancement of our humane sciences and the maintenance of honor and character in our ranks—are themselves sufficient to commend this organization to the good favor of every practitioner in this Empire State. The third, providing as it does for the beneficient protection of brethren who have fallen in the great strife, must touch a sympathetic chord in the bosom of every physician who appreciates the mutability of fortune. In no calling of life may misfortune come more swiftly, more relentlessly, than in that devoted to the welfare of humanity. It is the irony of experience that, often, he who most needs succor is the Samaritan himself. Your example, therefore, in this regard, is worthy of emulation by every State medical society in the country.

I am, however, on this occasion, particularly interested in the fourth plank of your platform. I allude to that statement which declares that one of your objects is the establishment of harmonious relations—or, as the charter itself declares, "the establishment and furtherance of cordial professional relations and fellowship—between the medical profession of the State of New York and the medical profession of other States of the United States and of foreign countries, through the medical associations and societies of such States and countries."

Criticism of that declaration must exhaust itself in commendation. In it are embodied what should be regarded as the seminal elements of medical organization throughout the profession. It is a hopeful sign that such a broad, catholic principle should have been enacted into law by the legislature of a great State, and should have been voluntarily subscribed to by the vigorous, progressive, and enlightened men assembled in this hall. I like to think of all that is implied by this part of your splendid organic laws. It breathes the spirit of harmony. It means, if it means anything, and it does mean, as it should mean, the union of the medical profession of New York. It means, as it should mean, that every member of this organization should become a member of the American Medical Association—and I am gratified to know that many already sustain that relation. And, finally, it means, as it should mean, that, over and above all, you stand consecrated to the union and the solidarity of our great national profession. Your initiative will meet with a hearty response, not only from the American Medical Association, but from the great independent body of the profession. The genius of harmony, of unity, of fraternity is abroad in our ranks. It will brook no opposition. Yet this movement is not revolutionary; it is, rather, the culmination of another stage in the resistless evolution of our profession. It ought, therefore, to take but little time and less effort in which to make a change which, in sentiment, is already accomplished. There is but little necessity, the country over, for rescinding resolutions, altering by-laws, or amending constitutions, although some memories may well be effaced, and possibly some conventions, that have honorably served their day, but that are now relatively meaningless, may well be either modified or revoked. He who interposes either prejudice, preference, or prerogative as obstacles to this consummation must be recognized and treated as the enemy of progress. Organization, and organization, too, in the direction of union, must advance. The dissemination of science, the advancement of professional standards, the maintenance of a wholesome *esprit de corps,* the promotion of benevolent enterprises, and the increase of the power of the profession at Albany, at other State capitals, and at Washington, all depend upon it. This and more is clearly implied by your splendid declarations of purpose, and I come to tell you that the profession of the entire country is with you. I am convinced, and I have reasons for my conviction, that the profession, acting through its organized bodies, is ready and anxious to take steps that will enable it to present a united front to the dawning century.

The Michigan State Board of Health met in regular session at the capitol in Lansing on October 12th. Considerable time was devoted to the amendment of the leaflet issued by the board on *The Prevention and Restriction of Typhoid Fever,* which is sent to the health officers throughout the State for distribution to the neighbors of persons sick with typhoid fever. Ten thousand copies of the amended edition of the leaflet will be immediately printed for distribution where typhoid fever is reported. Action was taken preparatory to publishing a *Teachers' Sanitary Bulletin,* and for a new edition of the leaflet on *The Resuscitation of the Drowned and Electrically Shocked.* An instance of cheese poisoning at Climax, in which the cheese was found, at the State Laboratory of Hygiene, to contain a virulent form of the colon bacillus, was brought to the attention of the board. The subject of proposed regulations by townships, applicable to summer resorts, was discussed with the view of formulating regulations for improving the sanitary conditions. At the evening session, only four members besides the secretary were present—Dr. Belknap, of Niles; Dr. Johnston, of Grand Rapids; Dr. MacLachlan, of Detroit, and Judge McAlvay, of Manistee, when a resolution offered by Judge McAlvay was adopted. It read as follows: "*Resolved,* That the secretary of this board, Henry B. Baker, be and is hereby requested to tender to this board his resignation as such secretary, to take effect January 1, 1900 [*sic*], and that such resignation be placed by him in the hands of the president of this board on or before November 10, 1900, and that the president is hereby directed on said last-mentioned date to notify each member of this board whether such resignation has been received by him." Judge McAlvay stated that this action was not approved by the Hon. Frank Wells, the president of the board. Professor Delos Fall was not present. No reason for the action was mentioned.

Death of Sir Henry W. Acland, K. C. B., F. R. S.—The death is announced from London, on October 16th, of Sir Henry W. Acland, M. D., at the age of eighty-five. Sir Henry was honorary physician to the Prince of Wales. For many years he had been Radcliffe librarian at Oxford University, and was regius professor of medicine at that university from 1857 to 1894. Sir Henry, who was an M. D. of Oxford, also held honorary degrees from Dublin, Cambridge and Edinburgh. He was an honorary member of the medical societies of Philadelphia, Massachusetts, New York, Christiania and Athens, and was decorated with a Brazilian order.

The Medical Society of Virginia.—The thirty-first annual meeting will be held in Charlottesville on Tuesday, Wednesday and Thursday, October 23, 24 and 25, 1900, under the presidency of Dr. Hugh T. Nelson, of Charlottesville. In addition to the president's address, the programme includes the following titles: Mutual Relations of the Public and the Profession, by Dr. J. N. Upshur, of Richmond; Malaria, its Causes and Forms, by Dr. H. Stuart MacLean, of Richmond; Malarial Fever, with Special Reference to the Value of Blood Examination, by Dr. Herbert Old, of Norfolk; The Causation of Malarial Fever, with Special Reference to Eastern Virginia and North Carolina, by Dr. Charles R. Grandy; Salient Points in an Epidemic of Typhoid Fever, by Dr. William J. Crittenden, of Unionville; Observations on Typhoid Fever as met with in Harrisonburg, by Dr. J. H. Neff, of Harrisonburg; The Importance of Hypnotics in the Treatment of Typhoid Fever, by Dr. A. H. Buckmaster, of University of Virginia; Dietetic and Dietary Reform, by Dr. G. W. Drake, of Hollins; The Intracranial Complications of Middle-ear Suppuration, by Dr. John P. Davidson, of Richmond; Pharyngeal and Nasopharyngeal Growths, by Dr. William F. Mercer, of Richmond; Spectacles, their Use and Abuse, by Dr. J. A. White, of Richmond; The Bacteriology of the Stomach, by Dr. J. H. Kellogg, of Battle Creek, Michigan; Myocarditis, by Dr. J. H. Musser, of Philadelphia; The Present Tendency of Opinion among Scientific Men in Respect to the Essential Nature of the Phenomena of Animal Life, by Dr. J. W. Mallett, of University of Virginia; La Grippe, its Origin, Symptoms and Treatment, by Dr. Frederick Horner, of Marshall; Remove the Special Licence Tax, by Dr. J. Beverly De Shazo, of Ridgeway; What can we do to Enforce the New Medical Laws? by Dr. R. S. Martin, of Stuart; The State Board of Health, its History, Work and Possibilities, by Dr. Paulus A. Irving, of Richmond; A Plea for the more Frequent Treatment of the Morphine Habit in General Practice, by Dr. William B. Barham, of Newsome; The Treatment of Acute Lobar Pneumonia, by Dr. Ramon D. Garcin, of Richmond; Puerperal Toxæmia, its Treatment, by Dr. J. Bolling Jones, of Petersburg; The Diagnosis and Treatment of Renal Calculi, by Dr. Stuart McGuire, of Richmond; Injuries to the Bladder and Ureter in Radical Surgery of Cancer of the Uterus, by Dr. J. Wesley Bovee, of Washington, D. C.; The Progress we have made in Operations for Appendicitis, by Dr. Joseph Price, of Philadelphia; The Surgical Treatment of Carcinoma, by Dr. Joseph H. Branham, of Baltimore; Improvement upon Sayre's Apparatus for Treatment of Fractures of the Clavicle, by Dr. J. W. Henson, of Richmond; The Treatment of Supra-condyloid Fracture of the Humerus, by Dr. A. R. Shands, of Washington, D. C.; Acute Cholecystitis—Early Differential Diagnosis and Treatment, by Dr. J. C. Bloodgood, of Baltimore; Pelvic Hæmatocele and its Relation to Tubal Pregnancy, by Dr. George Harrison Tucker, of New York City; The Treatment of Posterior Displacements of the Uterus, by Dr. Edward McGuire, of Richmond; Modern Cæsarean Section, by Dr. Edward Parker Davis, of Philadelphia; The Relative Value of Laboratory and Bedside Diagnosis, by Dr. E. C. Levy, of Richmond; and Headache as a Cerebral Symptom, by Dr. J. Allison Hodges, of Richmond.

The Southwestern Tri-State Medical Association.—An association has been formed among the physicians of Texas, Oklahoma and the Indian Territory under the title of the Southwestern Tri-State Medical Association. The following officers were elected at the inaugural meeting held at Dallas: Dr. H. K. Leake, Dallas, president; Dr. J. W. Lowe, Holdenville, I. T., first vice-president; Dr. C. R. Hume, Anadarko, Okla., second vice-president; Dr. McNew, Honey Grove, third vice-president; Dr. C. Milliken, Dallas, secretary and treasurer.

The New York Academy of Medicine.—At a stated meeting, on Thursday evening, the 18th inst., the following papers were presented for discussion: The Advantages and Limitations of Sterilizing and Pasteurizing Milk, by Dr. A. D. Blackader, of Montreal; The Relation of Scurvy to Recent Methods of Artificial Feeding, by Dr. J. P. Crozer-Griffith, of Philadelphia; Concerning the Use of Cereals—Concerning Emulsions and Proteids, by Dr. T. M. Rotch, of Boston; General Principles of Artificial Principles; Home Modification of Milk, by Dr. L. Emmet Holt; and The Artificial Feeding of Infants upon Milk Modified according to Prescription in Laboratories, by Dr. W. P. Northrup.

At the next meeting of the Section in Medicine, on Tuesday evening, the 23d inst., Dr. Alfred Meyer will read a paper on The City and Its Consumptive Poor: A Plea for a Municipal Sanatorium outside of the Corporate Limits, which is to be discussed by Dr. John B. Cosby, Mr. John W. Keller, Assemblyman Nelson H. Henry, Mr. John P. Faure, Mr. Frederick Sturges, Mr. Osgoode Welsh, Mr. Jacob H. Schiff, and Dr. Henry W. Berg.

At the next meeting of the Section in Laryngology and Rhinology, on Wednesday evening, the 24th inst., the following papers will be presented for discussion: The Diagnosis and Treatment of Defective Speech, by Dr. G. Hudson Makuen, of Philadelphia, and The Pathology of Pharyngomycosis, by Dr. D. Braden Kyle, of Philadelphia. Cases will be presented and specimens and new instruments will be exhibited.

At the next meeting of the Section in Obstetrics and Gynæcology, on Thursday evening, the 25th inst., the following papers will be read: Analgesia in Obstetrics Produced by Medullary Injections of Cocaine, by Dr. S. Marx; Some Observations on Medullary Analgesia, by Dr. S. Ormond Golden; and Medullary Injections in Gynæcology, by Dr. J. Riddle Goffe. Dr. J. A. Schmitt will give a demonstration of uterine myoma, with remarks on the attachment of the bladder to the anterior surface of uterine tumors. Patients will be presented and specimens will be exhibited.

Death of Professor Eduard Albert.—A glowing tribute from the pen of Dr. Adolf Lorenz to the memory of Dr. Eduard Albert, of Vienna, who died on September 25th, appears in the *Wiener klinische Wochenschrift* for October 4th.

Association of German Naturalists and Physicians.—The seventy-second annual meeting of the Association of German Naturalists and Physicians was recently held at Aachen. Professor Hertwig, of Munich, was elected president for the ensuing year and Hamburg was selected as the next place of meeting.

A Training School for Nurses in Washington.—A training school for nurses has been established at the Providence Hospital, Washington, D. C., the faculty of which is composed of the medical and surgical staff of the institution.

Society Meetings for the Coming Week:

Monday, *October 22d:* Medical Society of the County of New York (annual); Lawrence, Massachusetts, Medical Club (private); Cambridge, Massachusetts, Society for Medical Improvement; Baltimore Medical Association.

Tuesday, *October 23d:* New York Dermatological Society (private); Metropolitan Medical Society, New York (private); Buffalo Academy of Medicine (Section in Obstetrics and Gynæcology); Medical Society of the County of Putnam, New York (semi-annual); Richmond, Virginia, Academy of Medicine and Surgery.

Wednesday, *October 24th:* New York Academy of Medicine (Section in Laryngology and Rhinology); New York Pathological Society; New York Surgical Society; American Microscopical Society of the City of New York; Philadelphia County Medical Society.

Thursday, *October 25th:* New York Academy of Medicine (Section in Obstetrics and Gynæcology); New York Orthopædic Society; Brooklyn Pathological Society; Brooklyn Society for Neurology; Roxbury, Massachusetts, Society for Medical Improvement (private); Massachusetts Medical Benevolent Society (annual); Pathological Society of Philadelphia.

Friday, *October 26th:* New York Clinical Society (private); New York Society of German Physicians; Yorkville Medical Association, New York (private); Philadelphia Clinical Society; Philadelphia Laryngological Society.

Saturday, *October 27th:* New York Medical and Surgical Society (private).

Births, Marriages, and Deaths.

Born.

McKenzie.—In Paragould, Arkansas, on Friday, September 28th, to Dr. and Mrs. J. G. McKenzie, a daughter.

Married.

Bartol—Cabot.—In Dublin, New Hampshire, on Tuesday, October 2d, Dr. John Washburn Bartol and Miss Charlotte Hemenway Cabot.

Hamil—Coolley.—In St. Louis, on Wednesday, October 17th, Dr. Frederick L. Hamil, of Lincoln, Illinois, and Miss Laura Coolley.

Haywood—Roe.—In Powell's Hill, Long Island, on Wednesday, October 17th, Dr. Herbert A. Haywood, of Quincy, Massachusetts, and Miss Clara Roe.

King—Martin.—In Brooklyn, on Tuesday, October 9th, Mr. John Henry King and Dr. Anna Elizabeth Martin.

McCullough—Kerfoot.—In Chicago, on Tuesday, October 17th, Dr. Charles Buel McCullough, of Indianapolis, and Miss Reeda Kerfoot.

Merrell—Bridge.—In Brooklyn, on Wednesday, October 3d, Dr. Howard Valentine Merrell and Miss Elizabeth Huntington Bridge.

Miller—Grove.—In Zion, Maryland, on Wednesday, October 10th, Dr. Charles Francis Miller, of York, Pennsylvania, and Miss Lalla Blanche Grove.

Murtagh—Shorb.—In San Francisco, on Tuesday, October 9th, Dr. John A. Murtagh, United States Army, and Miss Ramona Y. Shorb.

Poock—Wood.—In New York, on Tuesday, October 2d, Dr. Joseph Thomas Poock, of Hoboken, New Jersey, and Miss Minnie Louise Wood.

Schmidt—Kimball.—In Newton, Massachusetts, on Saturday, October 6th, Dr. Karl Schmidt, of Marburg, Germany, and Miss Edith Kimball.

Senseman—Knight.—In Atlantic City, New Jersey, on Wednesday, October 10th, Dr. Theodore Senseman and Miss Florence K. Knight.

Died.

Brosseau.—In Montreal, Canada, on Saturday, October 6th, Dr. Alfred Toussaint Brosseau, in the sixty-third year of his age.

Bunting.—In Philadelphia, on Tuesday, October 9th, Dr. Ross Richardson Bunting, in the sixty-sixth year of his age.

Crane.—In Corfu, New York, on Thursday, October 5th, Dr. Frank W. Crane, in the sixty-fifth year of his age.

Cutler.—In Bolivar, New York, on Sunday, October 14th, Dr. Joseph L. Cutler, in the fiftieth year of his age.

Larkin.—In New York, on Monday, October 15th, Dr. William R. Larkin, in the forty-third year of his age.

Leader.—In Boston, on Tuesday, October 9th, Dr. John A. Leader, of Lewiston, Maine.

Mahoney.—In New York, on Monday, October 15th, Dr. James F. Mahoney, in the thirty-sixth year of his age.

Palmer.—In Providence, Rhode Island, on Sunday, October 7th, Dr. Frederick H. Palmer, in the fiftieth year of his age.

Richardson.—In Louisville, Kentucky, on Tuesday, October 9th, Dr. Edward Richardson, in the seventy-fourth year of his age.

Russell.—In Philadelphia, on Sunday, October 7th, Dr. Jacob P. Russell, in the sixty-fourth year of his age.

Pith of Current Literature.

Boston Medical and Surgical Journal, October 11, 1900.

The Modification of Milk in Milk Laboratories. By Dr. T. M. Botch.—The dangers and difficulties of modifying milk, both at home and at the laboratory, although of the same nature, are much greater at home. Constant vigilance, much time, and honest, exact work, are equally necessary in both. All the different phases of a correct milk modification are much simplified when our modifications are made at the laboratory, where all these questions are practically solved for us, and the technique of modification is carried out by clerks trained for this purpose.

Breast Feeding. By Dr. A. Worcester.—The author considers the question of wet nurses, and regrets that there are so many unreasoning objections to this time-honored method of feeding infants deprived of their own mother's breasts. The common prejudice against letting legitimate babies thrive on the breasts of illegitimate mothers is unworthy of civilized people. "Cows are not such moral animals as to warrant their preference over human mothers, whose misfortune is generally due to a combination of their ignorance and over-developed motherliness." Girls should be taught to guard their breasts and nipples from the injury false fashions of dress impose. The strait dress fronts of past years are, no doubt, the cause of many of the cases of inverted nipples of to-day. The sebaceous film is the natural and proper protection of the nipple tip. By pregnant women this coating should be reinforced by cerates; the tender skin should not be damaged with alcohol and tannin. Let the physician remember that when the baby is first put to the breast, his largest chance of service comes in, and his unstinted time and patience are then needed. Breast pumps are dangerous things, and interfering husbands and ignorant friends are worse. When the breasts fill to uncomfortable heaviness, the "double Y" bandage of the Boston Lying-in Hospital is a great help. If the baby does not thrive, it is incumbent upon the physician to try in every way to better the mother's milk by building up the mother's stamina. Then, if the condition persists, the chemist may be called in.

Home Modification of Milk. By Dr. Charles W. Townsend.—The modification of cow's milk, with a knowledge of the percentages, is preferable to guesswork feeding of infants. In the experience of the author, laboratory modifications do not agree with infants as often as home modifications. Pasteurization and sterilization, although sometimes essential, are to be avoided if possible. The method of home modification can be made extremely simple, and such modifications are sufficiently accurate and uniform. The addition of cereals to the milk, in the form of barley or oatmeal water, is generally advisable after the seventh month; and before that age, in some cases, adds to the digestibility of the milk.

Medical Record, October 13, 1900.

Medullary Narcosis (Corning's Method): Its History and Development. By Dr. L. Marcus.—An article that seems to settle decisively the question of the authorship of this method in Dr. Corning's favor. His work along this line, commenced in 1885, is epitomized, as is also the work of subsequent investigators. The, now well-known, technique is given once again, and, once again, it is urged that, as this is a surgical procedure, asepsis is an absolute requisite to avoid fatal sequelæ.

The Modern Treatment of Pulmonary Tuberculosis. By Dr. M. J. Brooks.—The success of treatment is intimately connected with its early recognition. That pulmonary tuberculosis may be diagnosticated even without bacteriological examination, is the opinion of Fraenkel, Fluegge, Petruschsky, Anders, Senator, Bozzolo, Giovanni and many others. Sanatorium treatment for pulmonary tuberculosis is the achievement of the closing years of the century, and embraces, in sum and substance, modern and successful methods.

A Consideration of the Anatomical Construction Predisposing to Inguinal and Femoral Hernia, and the Measures to be Taken in Securing their Radical Cure. By Irving S. Haynes, Ph. B., M. D.—The author treats the subject in a lucid manner, and lays stress in particular on the importance of familiarity with the normal inguinal and femoral regions, as also with the changes that take place when a hernia has occurred at either of these regions. In a radical cure, we should seek to reproduce the natural construction of the parts; should use nothing but absorbable suture material; and should not apply a truss to preserve the effects of the operation; for, if a radical cure has been effected, it is unnecessary, while if it has not been effected, a truss will not prevent the return of the hernia. Illustrations accompany the text.

Light as a Remedial Agent. By Dr. J. W. Kime.—A number of cases of lupus treated by prolonged daily exposure to concentrated sunlight have been so improved by the treatment that the author is convinced of the value of the "therapy of light." The germicidal action of the so-called chemical rays, and the power of light to penetrate the tissues of the body, have led the author to the corollary that there is much to be hoped for in the treatment of tuberculosis pulmonalis by light. He is now treating a number of such cases, and "all the patients are gaining in weight and are otherwise improving."

Medical News, October 13, 1900.

Cocaine Anæsthesia by Lumbar Puncture: Two Cases of Hysterectomy. By Dr. J. Riddle Goffe.—This is another addition to the rapidly increasing number of papers on this subject. The analgetic effect extends usually from the toes to the umbilicus, and, below these points, operations may be performed with immunity to pain. The amount of the drug to be used varies from one-sixth to half a grain, but the usual dose is one-sixth or one-third of a grain.

One of the author's cases was an abdominal hysterectomy, the other, a vaginal hysterectomy. In all probability this abdominal hysterectomy is the first on record, in which anæsthesia was produced by lumbar puncture. The results in both cases were very gratifying, and the use of the angeiotribe was probably as severe a test of the analgetic effects of the method as could be applied.

A Consideration of Finger Infection, with Special Reference to the Joints and Tendons. By Dr. Ellsworth Eliot, Jr.—These cases vary greatly in the extent of damage to the structures involved. In the mildest forms, the process is limited to the skin and the subcutaneous tissue with but slight, if any, constitutional disturbance. In more severe cases, access of the pyogenic organisms to the tendon sheath takes place and acute necrotic inflammation fills and distends the sheath with pus. The resulting tendon-slough separates from its viable part above and below, discharge follows from a wound, which shortly heals by granulation and leaves a finger with a permanently impaired function.

The principles to be observed in the treatment of all these cases are simple. The applications of suitable dressings to the part, which is kept elevated and in absolute rest, is reinforced by incisions which allow generous drainage and thereby prevent the retention of any foul material in the area of inflammation. The question of computation is one for the patient, and not the surgeon, to decide, so long as the retention of the finger is without risk.

The Prevention and Treatment of Colds. By W. Sheppegrell, M. D., A. M.—A brisk saline purgative, if taken within the first twenty-four hours, is one of the most useful remedies, and one which may be administered in almost all cases without injury. The simplest and most beneficial local treatment consists in bathing the nostrils with a warm one-half-per-cent. salt solution, which soothes the mucous membrane and washes it free of acrid or tenacious secretions. The importance of prophylaxis, in this connection, cannot easily be exaggerated.

The Treatment of Rheumatism and Some Phases of Indigestion: Gouty Diathesis. By Dr. Charles E. Page. —The chief problem in all these cases is to diminish the formation and increase the elimination of uric acid. To do this we need a potent and, at the same time, non-toxic solvent. In the cases that the author cites, it would seem that piperazine water supplied this need.

Philadelphia Medical Journal, October 13, 1900.

General Summary of the Cases of Typhoid Fever Treated in the Johns Hopkins Hospital for Ten Years. By Dr. William Osler.

A Review of the History of Cardiac Pathology, with Especial Reference to Modern Conceptions of Myocardial Disease. By Dr. Alfred Stengel.—It is the author's firm belief that many of these cases may be arrested in the earlier and less serious stages, and some restitution *may* be effected. This presupposes, however, early recognition, and rigid dietetic and prophylactic measures of treatment. The patient does not realize the seriousness of his condition, nor does the physician recognize the existence of the trouble in the early stages.

Fracture of the Carpus. By G. G. Ross, M. D., and M. I. Wilbert, Ph. G.—This is a study of fifty-two cases of injury in which one or more of the carpal bones were involved. Illustrations are given. In these cases the wrist should be kept at rest for from two to three weeks, so as to allow the repair of any injury to the soft tissues, then careful massage should be used. This, in fractures of the carpus, is of very great importance, as it has a tendency to facilitate the absorption of the inflammatory exudate that is generally thrown out quite freely at the seat of fracture, and especially if the fracture involves a joint.

Some Phases of the Tuberculosis Problem in Colorado. By S. G. Bonney, A. M., M. D.—The author believes that, with the adoption and intelligent elaboration of a suitable supervisory and educational system, there will be afforded adequate protection for the community without an abatement of kindly and humane feelings towards a large afflicted class of our fellow-beings.

Rupture of Symphysis Pubis during Parturition, with Report of a Case. By Dr. G. A. Himmelsbach.—This occurrence, known since the time of Hippocrates, is very unusual, and the case described is interesting on that account.

Concerning Calentura. By Dr. Frank W. Foxworthy.

Appendicitis: Pin in Appendix—Abscess of Liver—Purulent Peritonitis—Death. By E. H. Trowbridge, A. B., M. D.

Pædiatrics, October 1, 1900.

The Treatment of Scarlatinal Nephritis. By Dr. Robert Coleman Kemp.—While the subject is not treated exhaustively, the matter is put in such form as to be of practical value to the general practitioner of medicine. This disease is primarily due to the "specific poison of scarlatina," though some believe, that, as it occurs about the period of desquamation, "catching cold" is the chief factor. Careful analysis of their statements, however, "condemns them from their own mouths."

A comprehensive arrangement of the symptoms is given, and the author proceeds to the subject proper of the article—the treatment. Nitrate of amyl by inhalation is very useful as an anti-spasmodic in acute renal convulsions. The use of oxygen is also advocated strongly in the pulmonary complications due to nephritis. Its efficacy as a cardiac and respiratory stimulant *per se,* is dwelt upon. It is an adjuvant in the toxæmia of scarlatina to aid in the elimination of the toxines from the blood through the kidneys, skin, etc. Therefore, in many cases in which no pulmonary complications exist, it should prove of value. The article is not concluded in the present issue.

The Care of the Higher Grades of Feeble-minded. By Dr. A. W. Wilmarth.—The author, very properly, endeavors to give an accurate definition of the term "feeble-mindedness," and believes that in the ranks of the feeble-minded are included those in whom such faculties are absent or defective as are necessary to carry on ordinary social relations, thus preventing the victim of the infirmity from ever acquiring an average social standing or degree of usefulness in the community at large.

In children, if speech is lacking, without deafness or defect of the vocal organs, our suspicion becomes a certainty. If the child, however, shows any progress at all, even the slightest and however slow, it is simply backward. But if the progress stops long before what may be regarded as the normal limit is reached, the child is probably imbecile to some degree.

Surgery does little for the imbecile. Abnormal growths, phimosis, deformities of various sorts should be removed to make the patient's lot happier; but, craniectomy, etc., gives little actual benefit. Though the same amount of extra care and indulgence which surrounds such a child at home cannot be obtained in an institution, yet, community life is essential to their most rapid advancement. Medical attention should be constant, as they succumb very readily to disease. The State should take care of these people. For how long? For life. Their lives should be guarded and governed; they should be directed, guided, and controlled.

Lancet, September 29, 1900.

The Treatment of Typhoid Fever. By Dr. J. Barr. —In nine cases out of ten, the diagnosis of typhoid fever should be made by the third day of the disease, so that Widal's reaction, which is not present until the fifth day, is usually only of value as a confirmatory test. As an early test, the author prefers Ehrlich's diazo-reaction of the urine.

The first step in the treatment of typhoid fever, when the case is seen at the beginning of the illness, should be the administration of calomel followed by a saline draught. Should there be headache and restlessness, ten grains of Dover's powder, with salol, may be given. After dwelling on the questions of prophylaxis and general management, the author states that while milk is universally held to be the staple diet in typhoid fever, the tissue waste is exceedingly great where it forms the sole article of food. Milk should always be diluted with an equal quantity of water or whey, and sugar of milk and chloride of sodium may be added with advantage. The author also uses buttermilk, in which the typhoid bacilli do not thrive as well as in ordinary milk. The stools should be carefully inspected, and if curds appear the diet should be peptonized. Liquid nourishment should be continued until the temperature has been normal for a week, when eggs, chicken, etc., may be cautiously given. Constipation should be most carefully guarded against.

"The most severe case of typhoid fever can be better treated without alcohol than with it, and the conditions demanding its use in this disease are very few and far between." Alcohol is not a food nor a cardiac tonic, but a sedative and a producer of vaso-motor paresis. Further, the danger of cardiac asthenia is often exaggerated, and large doses of strychnine are given unnecessarily.

The author has discarded the use of drugs as antipyretic agents, and reduces the temperature in typhoid fever by the application of water in various ways, such as tepid baths, cold compresses, continuous hammock baths and cold-water enemata. In cases of hæmorrhage into the bowel, a large dose of opium should be given at once, followed by turpentine in ten-minim doses every hour or two. In cases of perforation, early surgical operation offers the best chance of recovery. In cystitis, whether due to typhoid or colon bacilli, urotropin and salol are the best remedies. The intermittent pyrexia sometimes seen during convalescence may be cut short by a few injections of anti-streptococcic serum.

Experimental Proof of the Mosquito Malaria Theory. By Dr. P. Manson.—(*Treated editorially.*)

Puerperal Sepsis. By Dr. R. P. R. Lyle.—Puerperal sepsis is surgical fever arising from the infection of a wound. The different varieties of puerperal sepsis are: (1) sapræmia, or septic intoxication due to a local cause; (2) septicæmia, or acute septic infection or acute sepsis; and (3) pyæmia. Sapræmia may be divided into three varieties: 1. Fœtid sapræmia, due to the absorption of the products of decomposition in the parturient canal. The symptoms are headache and rise of temperature to 102° or 103° F., and the treatment is efficient douching with creolin solution, half an ounce to the gallon of water. Whenever the symptoms do not abate in spite of douching, gentle curetting with Rheinstädter's flushing curette will be of service. 2. Suppurative sapræmia, due to the absorption of toxines produced by suppuration on the surface of the parturient canal. This form is more sudden and severe than fœtid sapræmia, being usually ushered in by a rigor. A puerperal ulcer always appears in the situation of a laceration. Treatment consists in washing it three times daily with creolin and dusting it with iodoform. Stimulants are indicated, and concentrated and liberal diet. The extension of the ulceration throughout the inner surface of the uterus (septic endometritis) is the most fatal form of sapræmia. Plugging the uterus with iodoform gauze is the most successful form of treatment; it is very doubtful whether curetting is not absolutely harmful. 3. Inflammatory sapræmia, due to an acute inflammation of the vagina or uterus. This form is associated with considerable pain. The treatment, beyond douching, is chiefly symptomatic.

Puerperal septicæmia is a comparatively rare, but extremely fatal, condition. Septic micro-organisms get access directly into the blood through the lymphatics, and multiply in it by myriads. No form of treatment has as yet proved of any avail. The author has never seen a case of true puerperal septicæmia treated successfully with antistreptococcic serum. Pyæmia is due to the absorption of a septic thrombus in one of the uterine sinuses into the blood-stream by means of the veins. Its symptoms and treatment are those of surgical pyæmia. Rules which, if observed, would lessen the prevalence of puerperal sepsis:

1. Thorough disinfection of the patient's external genitals and of the hands and forearms of the doctor, prior even to a vaginal examination.
2. The abolition of routine ante-partum and post-partum douching.
3. The rendering aseptic of all instruments used during an obstetric operation.
4. The proper conduction of the third stage of labor: *i. e.*, waiting until the placenta comes naturally into the vagina before expressing it.
5. The strict limitation of vaginal examinations.
6. The disuse of all so-called "aseptic lubricants."
7. The immediate suturing of all perineal lacerations.

The Ætiology of Scarlet Fever. By Dr. W. J. Class.—The author asserts that the micro-organism discovered by Baginsky and Sommerfeld in the throat secretions and blood of scarlet fever patients, is identical with the *Diplococcus scarlatinæ* discovered by him in 1899. He gives those authors' description of the morphology of their streptococcus, and compares it with the morphology of his own organism, the only essential difference being that Baginsky and Sommerfeld speak of it as a streptococcus when growing on agar, which he denies to be the case. He then considers the evidence in favor of the view that the *Diplococcus scarlatinæ* is the cause of scarlet fever, under the following heads:

1. Evidence showing that the *Diplococcus scarlatinæ* is a germ not heretofore described.
2. Evidence showing that it is constantly present in scarlet fever.
3. Evidence showing that it is a pathogenic microorganism.
4. Evidence showing that scarlet fever can be reproduced in animals by the *Diplococcus scarlatinæ.*
5. Evidence showing that the pathologic changes in the organs caused by the *Diplococcus scarlatinæ* resemble those of scarlet fever.
6. Evidence showing that the disease produced through its agency is of a contagious nature.
7. Influence of the blood of scarlet fever patients on the activity of the germ.
8. Finding of the *Diplococcus scarlatinæ* in the throat secretions of patients with scarlatinal sore-throat, a further proof of its specific character.
9. Its growth in milk without affecting this medium, a fact in favor of its being the cause of scarlet fever.
10. The finding of the *Diplococcus scarlatinæ* in cases of surgical scarlet fever demonstrates its diagnostic value.

A Lymphatic Anæmia Met with in Children. By Dr. A. MacGregor.—The author calls attention to a form of anæmia occurring only in children, of which he has found no account in medical literature. From a study of twenty-three cases, seen by him, he formulates the following description of the condition. It occurs between the ages of three and sixteen years, the majority of cases being in boys. It runs a very chronic course, and recovery is the rule. There is a characteristic adenitis; the glands are small and hard, and they are always numerous in the cervical triangles and the groins. They do not become tuberculous. The mesenteric glands are affected, but abdominal symptoms are rare. The spleen is often enlarged. The anæmia may not be very marked but is always distinct. There is always a large increase in number of the leucocytes of the blood, the increase being chiefly of the large uninuclear forms. They may form forty per cent. of the total, instead of eight per cent., as in normal blood. The family history is usually negative. There is a history of gradually failing health, with loss of flesh and strength. Cough is frequent, being worse at night. The best remedies are arsenic, iron and cod-liver oil, and on these the patients usually recover, but always very slowly.

The Ætiology of Rheumatic Fever. By Dr. F. J. Poynton and Dr. A. Paine.—(*Treated editorially.*)

The Determination of Chloroform. By Dr. J. Edmunds.—The author describes a method of determining with precision minute quantities of chloroform in the blood, secretions, or organs of animals variously anæsthetized with chloroform. By means of a solution of permanganic acid and potash in excess, the chlorine of the chloroform is promptly and easily reducible to the saline form (potassium chloride) and made to serve as the measure of its chloroform.

On the Caloric Values of Certain Artificial Infants' Foods. By Dr. W. Overend.

October 6, 1900.

Early Researches Leading up to the Antiseptic System of Surgery. By Lord Lister. (The Huxley Lecture.)—In this lecture the writer reviews and sums up the experimental work done by him on the subjects of inflammation and clotting of the blood, and shows how it led up to the antiseptic system of surgery as introduced and advocated by him. He had worked along these lines for many years, and was prepared to welcome and utilize Pasteur's discovery that putrefaction, like other true fermentations, was due to microbes growing in the putrescible substance. One point of interest in the article is the statement that the emigration of leucocytes is not the exclusive mode of pus formation, and that it is often produced by the proliferation of cells.

Science and Practice. By Dr. G. V. Poore.—(An address delivered at the opening of University College, London.)

The Future of the Medical Student. By H. S. Collier, F. R. C. S.—(An introductory address.)

Abstracts of Introductory Addresses, etc., Delivered at the London and Provincial Medical Schools.

Aneurysm of the Renal Artery. By Henry Morris.—Renal aneurysms, whether traumatic or spontaneous, are among the rarest of all aneurysms. Two varieties are found after injuries: (1) small, sacciform aneurysms, the walls of which are formed by some or all of the walls of the artery; and (2) large false aneurysms, the walls of which are composed of condensed fibrous tissue surrounding coagulated blood. The writer has been able to learn of but two cases of true renal aneurysm of traumatic origin. False traumatic aneurysm may develop by: (1) the giving way of a small true aneurysm; (2) the yielding of a thrombus which has temporarily closed a ruptured artery; and (3) the immediate outpouring of blood from a ruptured artery. The writer reviews the twelve cases of false renal aneurysm which he has been able to find in the literature. There are on record four cases of true and three cases of false renal aneurysm which did not owe their origin to injury. In all these seven cases the patients were over forty years of age, with the exception of one, whose age was not stated. Four were in men and three in women. An unruptured sacciform aneurysm gives rise to no clinical symptoms, and is only discovered at the post-mortem examination. A false aneurysm, whether traumatic or spontaneous, always causes a tumor, and nearly always gives rise to hæmaturia. There are no symptoms other than these. The tumor is not generally tender on pressure or the seat of acute pain. Hæmaturia usually precedes tumor formation, and may persist for many months. Pulsation, so characteristic of other aneurysms, is remarkable by its absence in renal aneurysm. The results of auscultation are recorded in only one case, where no bruit was detected. The urine is normal except for the presence of blood. The diagnosis can only be made in cases in which hæmaturia and a tumor develop after injury. The prognosis in false aneurysm is most unfavorable. Four patients only have been operated on: of these, three recovered. The remaining eight patients died. Profuse hæmorrhage is usually the cause of death. When a tumor due to a renal aneurysm exists, the only prospect of saving life is by nephrectomy and the removal of the whole or the greater part of the aneurysmal swelling. Hæmorrhage furnishes the greatest risk attending the operation.

A Case of Acute Albuminuria (Acute Renal Congestion) with Uræmia; Recovery. By F. C. Erill, M. R. C. S.

With Two Similar Cases, and Comments, by Dr. S. West.—Dr. Erill reports the case of a man, aged thirty-six, with a history of influenza three weeks before, who had a sudden attack of acute renal congestion, with dyspnœa, headache, insomnia, and suppression of urine. What urine was passed was smoky, blood and casts were present, and there was one-third albumin. A diuretic mixture and purgatives were administered, but without avail. The urine continued scanty, and the amount of albumin increased until the urine became solid on heating. Five days later the patient had a violent uræmic fit, and renesection, dry cupping, vapor baths, and pilocarpine were ordered. Oxygen was also administered, relieving the dyspnœa greatly. Improvement then began and progressed steadily. Three weeks later the urine contained no albumin, and the patient has remained well ever since. His recovery is attributed to his vigorous constitution, to the renesection at the proper moment, and to the administration of oxygen, which cleansed the blood of the toxines causing all the grave and distressing symptoms.

Dr. West reports two similar cases seen by him, in which one patient died and the other recovered.

Such cases are extremely rare; they are instances of most acute albuminuria with blood, casts, and suppression of urine. The patients pass at once into a condition of acute renal toxæmia, but not that form in which fits are predominant. The prognosis seems desperate, but when once improvement begins it progresses rapidly and recovery is complete.

A Case of Anthrax. By E. F. M. Neave, M. B.—The writer reports a case of anthrax in a man aged fifty. The source of infection could not be traced. The disease began as a pimple above the left nipple. This changed to a pustule which rapidly increased in size, the tissues around being greatly swollen and indurated. The patient gradually sank, and died three days later. His temperature did not rise above 100° F. Tubes inoculated from the serum of the vesicles and pustule, showed pure cultures of anthrax bacilli. The only possible source of infection was bone dust, with which the patient had been fertilizing a field of grain. The site of the lesion (on the breast) was uncommon. There was very little pain, and no feeling of distress, the patient's mind being clear to the end.

On the Limits of the Heart Dullness in Cases of Anæmia and Chlorosis. By Dr. W. Wybaum.—The writer calls attention to the frequent occurrence of cardiac dilatation in cases of chlorosis and anæmia. The heart may return to its normal size, but recovery is not always possible, for a certain amount of hypertrophy may be added to the primary dilatation. Baths of carbonic-acid water are the best mode of treatment of this condition.

Case of Supra-hepatic Hydatid Cyst. By Dr. G. W. Davis.—The writer reports a case of hydatid cyst, of twenty-five ounces capacity, situated between the liver and the diaphragm. The patient was a woman, aged thirty-six, who had undergone an operation for abdominal hydatids four years previously. She had a healthy appearance, and there were no concrete symptoms other than that of the percussion outline and the skiagram. A symptom of remarkable character was the diminished urination, almost amounting to anuria, which, in association with menorrhagia and slight swelling of the legs, was evidently due to pressure on the vena cava by the cyst, probably at the point of the passage of the vein through the diaphragm. The cyst was removed at two operations, four days apart, and the patient made a slow but complete recovery. The case shows that the history of a case of hydatid is often that of a deterioration of health so gradual as to be imperceptible to the patient's friends, but which is measurably demonstrable if a strict record of the patient's powers is taken at intervals.

British Medical Journal, September 29, 1900.

A Discussion on Influenza as it Affects the Nervous System. By Dr. J. S. Bury and others.—Cases of influenza in which the nervous system seems to be specially selected for attack by the bacilli and their poisonous products, may be broadly separated into two groups: (1) nervous diseases which develop during, or shortly after, the febrile stage; meningitis and hæmorrhagic encephalitis are the best examples of this group; (2) nervous diseases which usually occur after the attack has subsided; neurasthenia and multiple neuritis are good examples. The toxines produced by the bacilli may be assumed to be less virulent in the second group. Meningitis may accompany an encephalitis, be secondary to an otitis, or exist alone. In many cases there is a mixed infection, cocci as well as influenza bacilli being present. These cases are usually of a comatose type, but in some cases, restlessness, delirium, and even mania, are the essential features. As regards the affections of the second group, a greater variety of disorders of the nervous system may come after influenza than after any other disease. Every possible variety of functional, inflammatory and degenerative disease has been noted. The author reports five illustrative cases in which the brain, the peripheral nerves and the spinal cord were respectively affected.

[All those taking part in the discussion were in accord as to the bacillus of Pfeiffer being the cause of influenza, and that the affections of the nervous system occurring in influenza were due to the bacterial toxines. Dr. T. Buzzard thought that the great increase in number of grave nervous diseases ascribable to toxæmia during the last ten years was due in part to the influence of influenza.]

A Discussion on the Problems of Gastric Ulcer. By Dr. J. P. Payne and others.—According to the first speaker, the following are the problems connected with gastric ulcer which are most in need of elucidation:

1. Is gastric ulcer increasing in frequency? 2. Is the connection of hyperacidity with gastric ulcer proved, and can it be ascertained without danger? 3. Are our present means of diagnosis in non-fatal cases quite satisfactory, especially in cases where there has been no hæmatemesis, but even where this has occurred? 4. Is there an acute form of gastric ulcer different from the chronic form? 5. Is the original cause or starting point of gastric ulcer really known? 6. Is gastric ulcer so rare in the upper and middle classes as seems to be generally supposed? 7. During rectal feeding, should taking water by the mouth be prohibited? 8. Is acetonuria a frequent accompaniment of rectal feeding?

Dr. W. Gordon, the third speaker, reviewed the various theories as to the causation of gastric ulcer, and found them all inadequate. He suggested that the most frequent cause of gastric ulcer was infection of the stomach wall by micro-organisms. According to the virulence of the microbe and its point of entry, there might be one of several results: a mere erosion, a chronic funnel-shaped ulcer, or an acute perforating ulcer. W. Stuart-Low, F. R. C. S., recommended the use of powdered mucin with sodium bicarbonate. It formed, he said, a gluey coating over the lining membrane, and the irritated surface was soothed and protected.

On Intermittent Pulse. By Dr. A. R. Cushing.—Intermissions of the pulse may be divided into several classes: 1. True ventricular intermissions, in which the pause is exactly equal to two pulse intervals, and during which there is no cardiac sound. 2. True auricular intermissions in which the pause is shorter than two pulse intervals, and during which there is no cardiac sound. This form is not infrequently seen in healthy persons, due to excessive inhibition. 3. False ventricular intermissions, in which the pause is equal to two pulse intervals, but is often interrupted by a slight elevation. In every case a first heart sound can be heard during the intermission. It appears to be due to excessive irritability of the ventricle leading to a premature systole. 4. False auricular intermissions, in which the pause is shorter than two pulse intervals, with a systolic sound soon after the last regular pulse elevation. 5. Another form of intermission has been described by Wenckebach, who attributes it to imperfect conduction of the impulse through the heart.

Headaches and other Nervous Symptoms in Relation to Post-nasal Adenoids. By Dr. D. McKeown.—Headache, defective memory, languor, and stunted growth are some of the results of post-nasal vegetations. They are commonly held to be due to imperfect aeration of the blood, in consequence of an insufficient supply of air, such insufficiency being due to the encroachment of the adenoids upon the respiratory channel. The author is opposed to this view, and holds that the condition of the tissues in the naso-pharynx and the nasal fossæ, with the consequent obstruction to the vascular and lymphatic circulation and pressure upon nerves, is an important factor in the production of the headache and the allied symptoms.

The Diastolic Expansion Movement of the Ventricles as a Factor in Compensation for Disease of the Mitral Valve. By Dr. T. S. Wilson.—The object of this paper is to bring forward evidence in favor of the heart having the power of enlarging its chambers by means of a true muscular expansion movement. The possession of this power would constitute the heart a double-acting pump. The author bases his views upon the study and interpretation of cardiograms, upon which the cardiac sounds are simultaneously recorded by means of a time marker.

The Origin of Gout. By W. R. Gore, M. B.—The author holds that the symptoms of gout are not due to the presence of uric acid in the blood, for the reason that in most of the diseases other than gout where uric acid is found in the blood, the symptoms commonly ascribed to uric acid (headache, indigestion, high-tension pulse, acute joint troubles, etc.) are absent. Further, the constitutional disturbance in a case of acute gout is out of all proportion to the region injured. His theory as to its causation is stated in the following conclusions: 1. Gout is not due to the presence of uric acid in the blood. 2. The symptoms of gout are due to a toxine. 3. The concurrent presence of uric acid is due to the action of the toxine on the liver. 4. The toxine is formed by the action of one of the intestinal bacilli on an intestinal secretion specifically altered by diet, this alteration being assisted by hereditary disposition.

Subcutaneous Saline Infusions in Pneumonia. By Dr. W. Ewart and B. Percival, M. B.—The authors report six cases of pneumonia treated with subcutaneous saline infusions, as advised by Penrose, of Baltimore. All the cases were severe and of uncertain and extremely anxious, though not hopeless, prognosis. Of the six cases, five died. The conclusions reached were as follows: (1) in the severe cases treated, no unfavorable results were noted from the saline infusions; (2) these seemed to delay rather than to accelerate the fatal termination; (3) they were not resented by the patients and by some of them they were acknowledged to be comforting; (4) they were powerless to check the fatal course of pneumonia in the worst type of cases; (5) they do not seem to have made any difference in the characteristic appearances of the pulmonary changes.

The Progress of the Sanatorium Treatment of Consumption in England. By Dr. J. H. Walker.

Consanguinity as a Factor in the Ætiology of Tuberculosis.—The author has studied the question of the high mortality from tuberculosis in the Isle of Man and concludes that one of the chief factors in its production is consanguinity. The climate of the island is bracing, the soil dry and the habits of life of the islanders good. But geographical position, physical conformation, racial antipathies and local prejudices have been at work for hundreds of years, with the result that a very high degree of consanguinity has been attained by the Manx people.

A Case of Fatal Malignant Endocarditis and Right Embolic Hemiplegia. By Dr. W. Ewart.—The author reports a case of the above-mentioned affection occurring in a man aged twenty-six, apparently due to infection from dental caries and stomatitis. Treatment consisted of oral antisepsis, injection of antistreptococcic serum, and saline infusions. [No mention of any bacteriological investigations is made.]

A Discussion on the Pathological Distribution of the Diphtheria Bacillus and the Bacteriological Diagnosis of Diphtheria. By Dr. F. W. Andrews and others—The morphological characters, considered alone, of the diphtheria bacillus are an unsafe guide for absolute diagnosis. Neisser's stain is a useful confirmatory test, but absolute reliance cannot be placed upon it. Ultimate reliance must be placed upon animal inoculations. The bacteriologist should always be furnished with clinical details concerning the material submitted to him. Too much weight must not be attached to negative bacteriological reports: the bacilli may not be found until the third or fourth attempt. The remaining speakers all agreed that the diagnosis of diphtheria was dependent, in a large measure, upon clinical as distinguished from bacteriological data.

A Case of Purpura and Intense Anæmia with Marked Deficiency in the Red Bone Marrow. By Dr. K. Muir.—The author reports a case of purpura in a boy aged fourteen, in which the red blood corpuscles numbered only 640,000 to the cubic centimetre, and the hæmoglobin was only twelve per cent. of normal. The leucocytes also were very scanty (1,000 per cubic centimetre). The boy died about six weeks after his admission to the hospital. At the autopsy the organs presented the appearances usually seen in grave anæmia. The bone marrow was found to consist almost exclusively of fat, of whitish appearance. Microscopical examination showed very few marrow cells or red corpuscles. The writer believes this condition of the marrow to have been primary, and causative of the anæmia. As a result of some intercurrent condition the hæmorrhage and purpura occurred. The marked diminution of the neutrophile leucocytes confirms the view that these forms have their origin in the bone marrow. During life, the blood showed no nucleated red corpuscles: an evidence that the blood-forming powers of the marrow were in abeyance.

Uterine Myomata and Developmental Irregularity. By W. R. Williams, F. R. C. S.

A Discussion on the Pathology of Cirrhosis of the Liver in Adults and Young Children. By Dr. A. Voelcker, Dr. L. Hektoen, Dr. S. Flexner and others.—From an examination of the records of 172 necropsies in cases of cirrhosis of the liver, the first speaker concluded that alcohol played an important part in the production of cirrhosis, but in what way was uncertain. Large livers were more common in spirit drinkers than in beer drinkers, but the "gin drinker's liver" could be produced by beer. Dr. Hektoen spoke of some demonstrations made in his laboratory on cirrhotic processes in the liver of animals directly induced by two different bacilli. One of these bacilli belonged to the colon group, the other to the pseudo-diphtheria group.

Dr. Flexner spoke of the experimental evidence that lesions of the liver cells preceded changes in the connective tissue, of the nature of the new tissue formed in cirrhosis, and of the common cause of death in the disease (terminal infection with the pyogenic cocci).

The Ætiology of Tropical Dysentery. By Dr. S. Flexner.—The author sums up the present knowledge of the cause of dysentery as follows: 1. No bacterial species yet described as the cause of dysentery has special claim to be regarded as the chief microorganism concerned in the disease. 2. It is improbable that any bacterial species that is constantly and normally present in the intestine, or in the environs of man, except where the disease prevails in an endemic form, can be regarded as a probable cause of epidemic dysentery. 3. The relations of sporadic to epidemic dysentery are so remote that it is improbable that the two diseases are produced by the same organic cause. 4. The pathogenic action of the amœba coli has not been disproved by the discovery of amœbæ in the normal intestine. In chronic dysentery bacterial association probably has much influence upon the pathogenic powers of the amœbæ. The author goes on to describe his bacteriological studies of Philippine dysentery. Two distinct types of organism could be distinguished, especially in the acute cases. Both were bacilli and resembled the colon bacillus, differing from it in certain cultural characteristics. The author is disposed to view tropical dysentery as consisting of a bacillary and an amœbic form, separable in their early and later stages by their clinical histories, their ætiology and pathological anatomy.

Nutrient Media of "Standard" Reaction for Bacteriological Work. By Dr. J. W. H. Eyre.—The author's article is based upon the following self-evident thesis: "The standardization of nutrient media by exact titration methods, using a really delicate indicator and accurately standardized neutralizing solutions, can alone be depended upon to give consistent and comparable results." He alludes with commendation to a standard reaction having been adopted in America through the energy of the laboratory section of the American Public Health Association.

Two Cases of Lipoma of the Kidney. By Dr. W. S. Lazarus-Barlow.

The Significance and Pathology of the Argyll Robertson Pupil. By Dr. W. Harris.

October 6, 1900.

The Huxley Lecture. By Lord Lister. (See abstract from the *Lancet* for October 6th, in this number of the *Journal.*)

An Address on Some Problems of Tropical Medicine. By Sir W. MacGregor, M. D.—Among the points brought out by the writer are the following: Typhoid fever does not occur in Polynesia and the Pacific islands, and appears to be a by-product of civilization similar to diphtheria, cancer, etc. Yaws is universal in the islands, and it is very rare that a child escapes it. Soft chancre is very severe, and in not a few cases the ulceration causes death by penetration of the abdominal wall. Gonorrhœa is all but incurable in native women. Dysentery, so called, is probably made up of entirely different diseases, or of one disease that presents widely diverse stages, and there are few scourges that require the same thorough and exhaustive study that it calls for. Remedies that are true specifics in one epidemic fail utterly in the next. The writer accepts the mosquito malaria theory, and states that on the West African coast it must be reckoned with at every step. Wards must be painted of a color that will facilitate the discovery of mosquitoes, and the windows and beds covered with mosquito netting. Wells, reservoirs, and tanks must be similarly protected. The writer has never seen an *Anopheles* in Fiji, where malaria is unknown. But from his own observations he denies that the *Anopheles* bites only at night and that its sting is painless. Phthisis is very rare in the South Seas and diphtheria is unknown. Only one case of cancer was observed. In conclusion, the writer calls attention to the great importance of the water question, and contends that the quality of the water used by a community may have as much, or nearly as much, influence on them as the quality of the food they eat, or of the air they breathe.

Introductory Addresses: Opening of the Medical Schools. By Dr. G. V. Poore and others.

A Discussion on Subdiaphragmatic Abscess. By R. J. Godlee, F. R. C. S., and others.—Subphrenic abscess is not an isolated disease, but an accident or by-product of some other phenomenon, and most probably the symptoms of the causative disease will be the prominent ones. A subphrenic abscess may be defined as any collection of pus, or pus and gas, the whole or part of which intervenes between the diaphragm and the structures normally in contact with it. There are no pathognomic signs of subphrenic abscess. It should be distinguishable from the dullness of a pleural effusion by the following signs:

1. The movements of the chest are unimpaired on the affected side. 2. The upper limit of dullness is not so sharply defined. 3. Breath sounds may be heard below the level of the dullness. 4. On examination of an emaciated patient in a good light, the lower margin of the lung may be seen to move up and down during respiration. 5. There may be a great extent of tympanitic resonance, over which the bell sound may be elicited. This occurs only where gas is present (subdiaphragmatic pneumothorax). The writer concludes by reviewing the well-known classification of Maydl, and adding actinomycosis, tuberculous peritonitis, and diseases of the pancreas to the list of possible causes.

Pyloroplasty for Cicatricial Contraction of the Pylorus and for Gastric Ulcer. By L. A. Bidwell, F. R. C. S. —The writer reports two further cases of pyloroplasty for non-malignant stenosis of the pylorus, in both of which the patients made perfect recoveries. This operation is eminently suited for non-malignant stenosis, and in such cases is greatly superior to gastro-enterostomy or Loreta's operation. In malignant disease it is not suitable, since the parts to be sutured are not healthy.

The Causes and Treatment of Non-malignant Stricture of the Rectum. By F. C. Wallis, F. R. C. S.—Stricture of the rectum, when not congenital and not malignant, is invariably the sequel of preexisting ulceration. Syphilis, tubercle and dysentery are looked on as the common causes of ulceration. Stricture of the rectum is more frequent in women by three to one. The majority of cases occur in women at about the age of thirty. In the writer's opinion the most common cause is septic ulceration, due to a septic discharge from outside or to postoperative sepsis. The clinical fact that patients with ulcer of the rectum often have acute synovitis, is very suggestive. The writer reports three such cases of ulceration due to sepsis following an operation for hæmorrhoids; in one of these stricture developed.

As regards treatment, the only proceeding offering relief is the excision of the stricture. He advises that the operation be preceded by a preliminary colotomy, which makes it possible to wash out the gut and to keep it free from fæcal contamination while the excision wound is healing.

A Case of Obstructive Jaundice Due to Gummatous Infiltration. By H. B. Robinson, F. R. C. S.—The writer reports a case of obstructive jaundice in a man aged thirty-three, due to gummatous infiltration involving the head of the pancreas, the duodenum and the gastro-hepatic omentum. The patient had had syphilis ten years before, and complained of jaundice and intense itching. All medical efforts toward the relief of his biliary obstruction having failed, an operation was decided upon, and cholecystocolostomy was performed, a complete cure resulting.

A Discussion on the Methods at Present Available for the Treatment of Simple (Subcutaneous) Fractures. By W. H. Bennett, F. R. C. S., and others.—The first speaker arrives at the following conclusions: 1. The treatment of simple fractures at present is conducted too much upon lines which are traditional rather than rational. 2. The use of splints for a long period is disadvantageous, especially in the form of plaster splints. 3. The earlier movements of the joints above and below the fracture in a long bone are used, the quicker the recovery. 4. The operative treatment of simple fractures is limited to (*a*) cases which are otherwise unmanageable, (*b*) special cases, such as spiral and oblique fractures of the tibia, and (*c*) certain fractures near joints, as of the humerus at the elbow. 5. The operative treatment of recent fracture of the patella is not satisfactory, and where the separation does not exceed three-quarters of an inch, as good results are usually obtainable without an operation. 6. The use of massage and passive movements immediately in simple fracture is in most cases the best means of effecting a rapid recovery. 7. The degree of disability following simple fractures has been exaggerated. 8. Moderate displacement, provided it is not rotatory, is not necessarily followed by disability, if care is taken, by the use of early movements, to prevent matting of the parts around the fracture. 9. No one method of treatment for simple fractures can be insisted upon as a routine practice. He concludes by giving a summary of information as to the treatment of simple fractures, obtained by submitting certain questions to about three hundred surgeons in London, the Provinces, Ireland, and Scotland.

On the Best Method of Removing Large Stones from the Bladder, with Notes of a Case. By S. H. Burton, F. R. C. S.—The writer reports a case of very large vesical calculus treated by suprapubic lithotomy. He reviews the merits and demerits of suprapubic lithotomy and perineal lithotrity, and concludes that the former operation is the best for large stones.

On Fifty-three Operations for Stone in the Bladder. By Dr. P. J. Freyer.—The writer has performed nearly a thousand operations for stone in the bladder, but reports only those in which the stones weighed two ounces and upwards, fifty-three in all. Of these, four were suprapubic lithotomies with a mortality of 50 per cent.; four were perineal lithotomies with a mortality of $28\frac{1}{2}$ per cent.; and thirty-five were litholapaxies with a mortality of $11\frac{1}{3}$ per cent. The average age of the litholapaxy patients was fifty-three years, about ten years greater than that of the subjects of perineal lithotomy, and about double that of the suprapubic patients. The period of treatment after litholapaxy was only eleven days, as compared with thirty after lithotomy. One of the most essential elements of success in litholapaxy is the use of proper instruments, and the writer describes a special lithotrite and aspirator designed by him. From his experience he has no hesitation in pronouncing litholapaxy to be the best operation in all cases in which it is practicable.

A Discussion on the Treatment of Chronic Glaucoma. By F. R. Cross, F. R. C. S., and others.

The Ætiology of Phlyctænular Affections of the Eye. By S. Stephenson, F. R. C. S. E.—The writer regards phlyctænular disease as due remotely to the tuberculous diathesis, and immediately to an eruption of eczema upon the surface of the eyeball.

Gazette hebdomadaire de médecine et de chirurgie, September 27, 1900.

This number is devoted to the Transactions of the Pathological and Experimental Pathological Sections of the Thirteenth International Medical Congress.

September 30, 1900.

Appendicitis and Pregnancy.—M. Bonneau and M. Audebert review the literature of this subject since 1890 and report a case of their own which was brought to recovery without operation, seemingly by the use of Marmorek's anti-streptococcic serum. The authors favor induction of labor in these cases in order to prevent the fœtus from being killed by sepsis, and in order to facilitate the mother's recovery from her acute attack. They are opposed to operation before the uterus has been emptied, believing the mother's chances to be enhanced by waiting until after delivery. The authors have collected statistics which seem to show, that the cases not operated upon before delivery give a higher percentage of cures than those submitted to surgical intervention. They favor subsequent operation at a favorable time. [The cases collected by the authors number but nineteen, so it seems hardly fair to draw from them such radical conclusions. There is, further, no classification of appendicular inflammation given, so that no line is drawn by the authors as to those cases which threaten life and those which would have a tendency to temporary recovery without surgical means. It seems scarcely necessary to call attention to the extreme danger of inducing labor when an unopened abscess following an appendicular inflammation lies in the pelvis.]

Presse médicale, September 29, 1900.

Simple, Primary Hyperchlorhydria. By M. P. Luigi Sansoni.

Progrès médical, September 22, 1900.

Sexual Life, Marriage and Descendants of an Epileptic. By M. Bourneville and M. Poulard. (*Continued article.*)

September 29, 1900.

Sexual Life, Marriage and Descendants of an Epileptic (*conclusion*).—M. Bourneville and M. Poulard consider in detail the life of an epileptic whose seizures began in his thirteenth year. He presents the "idiopathic" type of the disease which has run its usual course. He now has loss of memory and intellectual weakness, with a gradually diminishing sexual power. As an unmarried man, and early in his married life, his sexual vigor, contrary to the rule among epileptics, was excessive. He has had eight children. Two died of athrepsia, one of cholera infantum without convulsions. Another is possessed of a violent temper and has mild convulsive attacks limited to the eyes. Another had epileptic seizures, hallucinations, and disturbances of sleep, ultimately dying of diphtheria. The sixth child is very nervous and has had night terrors. The authors think that the marriage of epileptics should be forbidden, or, at least, strongly discountenanced.

Province médicale, September 29, 1900.

Hysterical Vomiting of Bloody Saliva.—M. J. Vire reports the case of a young girl who, shortly after her menses, vomited copiously for some days a fluid which was bloody. The physical examination disclosed no lesion of any kind. The patient was finally cured by suggestion, having been anæsthetized for the alleged purpose of operating upon an œsophageal stenosis. She was an hysterical girl.

Radiographic Measures. By M. Fabre.

Acute Osteomyelitis of the Occipital Bone. By M. Patel.

Journal des praticiens, September 29, 1900.

Alopecia.—M. Sabourand says that a sharp line should be drawn as to those alopecias the results of former lesions which have themselves disappeared. The name alopecia should be reserved exclusively for those cases of alopecia areata which appear spontaneously, and which are not preceded by any lesion. The author distinguishes two distinct forms: 1. *Occipital baldness* (of Celsus) which is common in young people. It begins over the occiput and slowly extends. It is rarely contagious. At puberty, it is curable. 2. *Seborrhœic alopecia* (of Bateman) which appears in adult and middle life. The original area is succeeded by secondary patches at some distance. It is due to a microbic infection of the seborrhœic glands. Contagion is very rare but is possible. The form, the course, the age of the person attacked, and the different microbic life which is found in the two varieties, are distinguishing characteristics.

Immovable Calomel Plasters in Infantile Syphilis.—M. H. Gillet recommends the application of a permanent or immovable mercurial plaster, containing mainly calomel, for the treatment of infantile syphilis. It has the advantages of being easily applied; the digestive tract, even in the youngest and most delicate child, is not disturbed; the absorption continues constantly, and is not limited by carelessness or forgetfulness of attendants; the medication can be withdrawn at will, and, finally, it is a means of disguising mercurial treatment in cases in which it is necessary, or desirable, to practice deceit as to the existence of syphilis. In time, the calomel plaster must give place to treatment by iodides.

Psychoses of Puberty. By M. Jules Voisin. (See *New York Medical Journal,* October 13th, page 634.)

Adenoid Infections.—Review by M. Paul Gallois.

Wiener medizinische Blätter, September 27, 1900.

Bed Treatment of Acute Psychoses.—Dr. Clemens Neisser says that in institutions, the bed treatment of all classes of acute psychoses is the most desirable, and should be interrupted only in exceptional cases under the orders of the physician. It is an excellent therapeutic measure, but must not be continued too long, especially in the case of the young. Cases must be individualized so far as confinement in bed in single rooms, in wards, with or without special attendants, is concerned.

Wiener klinische Wochenschrift, September 27, 1900.

"Intra-vital" Neutral-red Staining of Leucocytes.—Dr. Hugo Marcus finds a corroboration of Plato's experiments in his own. Morphologically intact leucocytes can be stained by the injection into the body of an aqueous solution of neutral-red. Damaged or degenerated white cells do not take up the stain. With the disappearance of the stain, vacuole formation proceeds hand in hand. The cells of the anterior horn of the spinal cord become similarly stained, Nissl-like bodies appearing. The fresh specimens can be indefinitely preserved by spreading them in a cover-glass and immersing them in Canada balsam.

Acetopyrine, a New Antipyretic.—Dr. Josef Winterberg and Dr. Robert Braun report on this drug, which is a chemical combination of acetyl-salicylic acid and antipyrine. It is a white crystalline powder with a weak odor of acetic acid, easily soluble in warm water, alcohol, chloroform and warm toluol, soluble with difficulty in cold water and ether. Added to the chloride of iron, a blood-red solution appears which changes to a bright yellow on the further addition of ten drops of concentrated sulphuric acid. Administered for several weeks, for chronic rheumatism, in daily amounts of from forty-five to seventy-five grains, it caused pain or distress in the gastro-intestinal tract, but did not evoke any other disturbances. In acute articular rheumatism, pain and swelling disappeared rapidly. In other acute infectious diseases, the temperature was reduced from two and a half to three degrees by from seven and a half to fifteen grains. In the urine, salicylic acid is abundantly found. The drug is best given in wafers, or in suspension in syrup in doses of seven and a half grains for ordinary cases.

Elevation of the Uterus, Separation of the Body from the Cervix, Splitting of the Cervix.—Dr. H. Ludwig reports the case of a young girl, twelve years of age, in whom a large embryonal cyst had by its growth completely separated the uterine body from the vaginal portion and had caused a splitting of the cervix. A ligament-like structure connected the body of the uterus with the cervix, but it contained no blood-vessels. The author is inclined to ascribe this rare condition to the adhesions formed by the cyst, which caused the tumor to sink into the pelvis so that its growth could only take place upward. Its dense adhesions to the entire body of the uterus fostered the separation of the uterus from its cervical portion.

Hyperglobulia and Splenomegaly; Hyperglobulia and Splenectomy.—Dr. von Cominotti reports two cases of enormous increase in the red cells of the blood, with gigantic spleen. In the first case the red cells numbered 7,500,000, in the second 5,500,000. The first patient died, the second recovered after removal of the spleen, but still presents, seven years later, a marked hyperglobulia. The author considers in detail the relation of the spleen to the hæmatogenous products of the body, and thinks that the study of his cases throws no light upon the function of this organ but rather tends to obscure existing knowledge.

St. Petersburger medicinische Wochenschrift, September 22, 1900.

The Operative Treatment of Ectopia Vesicæ.—Dr. Emil Graubner reports a case in a girl of eleven years. He implanted both ureters into the sigmoid flexure of the colon as the most feasible method of dealing with them, as the girl suffered from the physical and social consequences of incontinence of urine. The operation was entirely successful, the urine being emptied by way of the rectum three or four times daily with a small quantity of fæces, while one good fæcal movement was obtained daily.

Klinisch-therapeutische Wochenschrift, September 30, 1900.

Pure Motor Aphasia (without Agraphia), Pure Aphemia.—Prof. Ladaine says that pure motor aphasia is characterized by: 1. Loss of voluntary speech; 2. Loss of mimicry; 3. Loss of ability to read aloud. There remain, however: 1. Ability to write spontaneously; 2. Ability to write at dictation; 3. Ability to copy writing; 4. Comprehension of written or spoken words. He offers the following classification of the motor aphasias: A. 1. Pure aphemia without agraphia, and without any other complicating cortical motor lesion. This is due to a lesion of the neuron fibres which connect Broca's centre with the phonetic centres in the frontal lobe and Rolando's fissure. 2. Pure agraphia without aphemia, due to a lesion of the neuron fibres connecting Broca's centre with the centre which controls the hand trained to writing. This form is not yet clinically perfectly distinct. B. Complicated motor aphasia. 1. Common motor aphasia, caused by a more or less complete lesion of the association neurons which connect Broca's centre with the psychomotor cortical centres. This form may or may not be accompanied by agraphia, paralyses, epileptiform attacks, contractures, etc. 2. Sensory-motor aphasia, representing a more or less complete lesion of the association neurons connecting Broca's centre with the centres of sensory aphasia, and appearing as a combination of motor aphasia with word-deafness and word-blindness. Total aphasia would indicate a disturbance of all the connecting neurons leading to the cortical centres of speech. 3. Aphasia with intellectual disturbance, due to multiple lesions of the psychic association neurons.

Use of Widely-stretched Drainage Tubes (*continued*).—Dr. Carl Donati describes, in this installment, the employment of the widely-stretched drainage tubes for the use of "permanent sounding" in tight œsophageal strictures. The procedure consists in passing the finest silk strand through the stricture after a gastric fistula has been made. The end of the cord is carried through the fistula and then to either end is attached a bougie or tube—such as the one under discussion—which is carried through the stricture and is left in position for a number of hours. The size is gradually increased. In the intervals of sounding, as it is called, the silk strand is left running through the stenosed œsophagus.

Deutsche Medizinal-Zeitung, September 24, 1900.

Syphilitic Arthritis.—Dr. Guiseppe Cipriani says that the clinical symptoms of this disease are exacerbating nocturnal pains with fever of a remittent type. The most certain signs are the demonstration of gummata in the capsule of the joint, together with a thickening of the capsule, effusion into the joint, and a "cracking" sound when the joint is moved. These arthritides usually follow a periostitis or an osteomyelitis. The treatment must be directed against the constitutional disease and the affected joint. Mercurial inunctions seem to be especially beneficial.

Medicinische Woche, September 24, 1900.

Treatment of Nocturnal Enuresis by Massage.—Dr. I. Herhsmann recommends massage of the neck of the bladder by way of the rectum for nocturnal enuresis. The index finger is used, and massage is practised, at first mildly, later more energetically, for two minutes at each session. His results have been excellent. He believes that the condition is brought about by some defect in the coordination of the function of the nerve elements of the vesical sphincter, which is permanently relieved by massage.

Prevention of the Plague. By Dr. J. Löwenthal (*continued article*).

Wiener klinische Rundschau, September 23, 1900.

Vaccine Infection on the Lips.—Dr. Alfred Jungmann reports the case of a nurse who became infected on the lips from a fifteen-months-old child. This involuntary vaccination ran the usual course of vaccinations. The treatment consisted of a dressing for the vaccination swelling, antiphlogistic remedies and drugs to allay the pain.

Contribution to the Casuistics of Abdominal Surgery.—Dr. W. Kopfstein gives the details of three abdominal cases which were subjected to laparotomy: Gunshot wound of the stomach and liver, a case of intestinal obstruction and one of valvulus. (*To be continued.*)

Report on Fifty Tuberculous Cases (*conclusion*). By Dr. J. Gabrilowich.

Medicinisch-chirurgisches Central-Blatt, September 28, 1900.

Occurrence and Diagnosis of Gout.—Professor A. Strümpell says that one of the most important signs, as well as one as yet unexplained, is the predilection of gout for the great toe. Even if another joint is attacked in some particular seizure, the patient will always give a history of having suffered from podagra. The great toe-joint is usually the first one attacked, although sometimes other articulations are the first to show the signs of the disease. In general, the joints of the lower extremity are more frequently affected than those of the upper, and the distal joints more often than the proximal ones. Another peculiarity of gout is the mono-arthritic, or, at least, oligo-arthritic, character of the individual attacks. In these last two particulars, gout can be easily distinguished from the rheumatic polyarthritic affections. The single attacks of gout appear much more frequently than those of rheumatism, while the seizures are, as a rule, of much shorter duration than those of the latter disease. Gouty inflammation, further, is characterized by a sudden onset, intense pain and the peculiar redness and swelling. Anorexia or gastro-intestinal disturbances are rarely present and the temperature, if any exists, is not very high.

Of the larvate forms, gout must not be confounded with arthritis deformans. Here the antecedent history of acute attacks favors the diagnosis of gout. The various forms of "algias"—tarsalgia, Achillodynia, atypical sciatica—may, in reality, be of gouty origin. The contracted kidney often represents a gouty ætiology, while an early arteriosclerosis may depend upon a gouty basis. Faulty metabolism and a number of cutaneous and mucous membrane affections are sometimes gouty in their nature. In the ætiology, the author places alcoholism first, especially heavy beer drinking; but in addition to this exciting cause, some endogenous, constitutional factor must exist. This is most frequently hereditary in its character. Gout, diabetes, and adiposity frequently go hand in hand in families. Chronic lead poisoning may lead to the disease, especially when combined with alcoholism. All these ætiological factors have a decided diagnostic value.

Experimental Therapeutics as a New and Fruitful Method of Physiological Research.—By Dr. Pawloff. (*Continued article.*)

Riforma medica, September 15, 1900.

The Effects of Sympathectomy, and its Application to the Treatment of Glaucoma. By Dr. Arnaldo Angelucci.—The author discusses the value of the excision of the sympathetic cervical ganglion in the treatment of glaucoma, and concludes that both physiological considerations and clinical results justify this operation for the relief of increased intraorbital pressure. The harmlessness of the operation and the permanent nature of the results obtained thereby, should make it the accepted method of treatment in glaucoma. Sympathectomy, however, is not applicable to the acute and subacute cases, but solely to chronic glaucoma.

Gazzetta degli ospedali e delle cliniche, September 16, 1900.

Concerning Oxyurides in the Skin. By Dr. Pietro Barbagallo.—The case reported here is the fourth instance on record where the oxyurides penetrated into the skin about the anus and found lodgment there. The first case of this kind was reported by Szerlecki in 1873, the second by Michelson in 1877, and the third by Majocchi in 1885. The patient whose history is reported by the present writer was a boy aged fourteen years, who stated that for some time he was awakened every night at about twelve o'clock by an intense pruritus ani, accompanied at times by a dull pain. Local applications proved of no avail, and the scratching produced excoriations of the anal region and of the perinæum which were so painful that the patient was unable to sit. The itching gradually spread to the lower part of the scrotum and to the groins, and applications of a paste of starch and glycerin gave but passing relief. At this time he came to the author, who found the regions mentioned reddened and excoriated, in some places in a state of maceration, and covered with sero-mucous exudate. Around the anus there were rhagades and excoriations which were exceedingly painful, especially when the patient was sitting. In the mucous discharge covering these lesions he found little elongated whitish bodies, about six millimetres long, which proved on microscopic examination to be oxyurides. These parasites were also found on the reddened area of the skin and in the stools, and the diagnosis of *Oxyuriasis cutanea* was made. The patient's nails were cut short and he was directed to keep his hands and nails very clean. Internally the following decoction was prescribed:

℞ Senna leaves...15 grammes (half an ounce);
  Water enough to make a decoction of 80 grammes (2.66 ounces).
Then add
  Sodium sulphate.8 grammes (two drachms);
  Simple syrup...20 grammes (five drachms).
M.

To be taken in two doses, with one day intervening.

The external remedies used were enemata of sterilized water with 1:1,000 salicylate of sodium twice a day, 750 grammes (three-quarters of a quart) being injected each time, for the first twelve days. On the twelfth day of this treatment no worms could be found in the fæces on careful examination. In addition, the inflamed and excoriated parts were washed with a lotion containing 1:1,000 sodium salicylate, and covered with a paste containing starch and glycerin. After fifteen days the parasites disappeared completely, and the author ordered an ointment consisting of 1.25 grammes of airol (20 grains) and 25 grammes (about six drachms) of lard. The parts were kept covered with a light dressing and with this ointment, and after two weeks the skin was perfectly normal.

A Case of Primary Sarcoma of the Posterior Portion of the Bladder. By Dr. Giacomo Matteucci.—The patient was a boy aged nine years. Both the family history and the previous history were negative. The disease began with frequency of urination dribbling, and, finally, incontinence; as this symptom developed, the patient began to complain of intense thirst and of a pain in the suprapubic region which came on suddenly, radiated to the pubic region, and was not relieved by the emission of the small amounts of urine. The lower part of the abdomen began to enlarge, and an intense pain was felt at the apex of the bladder, especially after the act of micturition. Poultices and cups were ordered, but did not relieve the distress. On palpation the writer discovered a tumor in the suprapubic region which was immobile and somewhat less distinct when the bladder had been emptied. Rectal examination showed the presence of a hard, immobile tumor in the anterior wall of the ampulla. The urine contained large quantities of albumin. Five weeks after admission the patient became comatose, and this condition alternated with convulsions and delirium, and was accompanied by involuntary defæcation, retention of urine, and with hæmaturia, including the passage of clots. The urine also contained many pus corpuscles. The patient died in a comatose condition about three weeks later. The diagnosis was sarcoma of the bladder, and the autopsy showed that an enormous tumor occupied the cavity of the pelvis and extended above the brim. This tumor arose from the posterior wall of the bladder, and on microscopic examination proved to be a round-celled sarcoma.

A Case of Dermatitis, Tetany, Desquamation and Œdema Due to a Severe Intestinal Autointoxication. By Dr. P. Valenza.—The patient was an infant aged fourteen months. The child had been suffering for some time from dyspepsia. The present illness began suddenly with fever and a scarlatiniform rash over the face and neck, as well as with a bright-red erythema over the trunk. The limit of this erythema looked like the boundary line of an erysipelas. There was also marked tympanites, and purgatives were therefore ordered, with the result of promptly relieving the symptoms. On the following day, however, the child was found in a tetanic condition, and the skin all over the face, neck, abdomen, and chest, was desquamating. There was a slight œdema of the face, the back, and the fingers, and the pulse and temperature were normal. The tympanites had returned and the child was constipated; the urine was scanty. Irrigations of the bowels, pepsin, sodium benzoate and caffeine were ordered, and in five days the symptoms disappeared. In commenting upon this case, the author says that the cause of this symptom-complex was an intestinal self-intoxication, and that this was probably the result of the diet. The child had received asses' milk, which milk is more likely to ferment than that of any other animal.

Arterial Gangrene Simulating Raynaud's Disease. By Dr. N. B. Forteleoni.

A Case of Enlarged Malarial Spleen Treated with Hypodermatic Injections of Iodine-potassium-iodide Solution. By Dr. V. Piga.—In addition to quinine, the author used an injection composed as follows:

℞ Potassium iodide.........2 grammes ($\frac{1}{2}$ drachm);
Iodine, pure...............1 gramme (15 grains);
Distilled sterilized water.100 grammes (3.66 ounces).
M.

An ordinary hypodermatic syringe was filled with this solution, and the injections were repeated at first twice daily, then once daily, and then every other day. After seven weeks' treatment the spleen could no longer be felt and the left hypochondriac region was no longer painful.

Some Considerations Concerning Rickets. By Dr. T. Silvestri.

Vratch, September 9, 1900 (September 21, N. S.).

The Infantile Type of Speech as a Sign of Hereditary Syphilis. By Dr. R. A. Katz.—The writer calls attention to the fact that Fournier, who described in detail the phenomena of hereditary syphilis, does not mention an important characteristic of this condition, namely, the persistence of infantile speech in hereditary syphilitics of advanced age. Fournier's son, in his recent work on the subject, mentions stammering as a symptom of hereditary syphilis; and among the many histories which he cites there are many cases in which there was a marked deficiency or a total absence of the power of speech. The present author reports two cases of hereditary syphilis in which the speech of the patients reminded one of the "baby talk" of infants. In commenting upon these cases he says that while he will not pretend to assert that there is a causal connection in these instances between hereditary syphilis and the infantile type of speech, such a connection is by no means improbable. Hereditary syphilis is often accompanied by retardation in the physical and mental development of the individual, and infantile speech is a result of such retardation.

Menstruation Appearing Simultaneously in the Genital Organs and in the Eyelids. By Dr. V. N. Dolganoff.—The intimate relation between the eye and the generative organs has been but little studied as yet, and this case is reported by the author as the only case of its kind on record. The patient was a woman aged twenty-five, who entered the clinic complaining of severe dull pains in the eyes and in the supraorbital arches, especially during the menstrual periods. For the past four years, she had had hæmorrhages from the left eye during menstruation. These hæmorrhages did not produce any discomfort, but she wished to know their cause. The hæmorrhages usually began concurrently with the beginning of the menstrual period and lasted until the menses had ceased. Occasionally the bleeding from the eye took place during the first two or three days of menstruation, then ceased for a day or two, to reappear and last until the menstrual period had passed. The patient suffered no pain in the lower part of the abdomen during the monthly period, but there was an almost constant pain in the left eye. The pain in the eye usually appeared a few hours before the discharge from the vagina, and thus served as a premonitory sign of menstruation. The skin of the eyelids became dark, the eyeball did not show any changes; then the hæmorrhage appeared, and the pain was considerably relieved after the bleeding had continued for a time. Two years before admission, whenever the patient wept, the right eye secreted normal tears, while the left was filled with thick, dark blood. There was also a history of hæmorrhage from the throat which took the place of normal menstruation before the bleeding from the eye appeared. As the menstruation was perfectly regular in this patient, the author says that his case differs from all the cases reported in literature, in that the hæmorrhage from the eye was not a vicarious menstruation but a reflex vasomotor phenomenon. With reference to bloody tears, the writer reminds us that they are mentioned in the Bible, and that a number of authors assert that they have observed such tears. In all probability these cases are due to the rupture of some bloodvessel in the conjunctiva.

Some Data Concerning the Blood of Children with Intermittent Fever. By Dr. I. K. Strjelbitzky.—A study of the relative numbers of the different types of white corpuscles in the blood of children in malaria. (*To be continued.*)

Scurvy in the Ætiology of Pleurisy. By Dr. N. N. Petroff.—The author says that he has not been able to find a single article in literature concerning the connection of scurvy and pleuritic inflammation, and in the modern textbooks on medicine no mention is made of cases of slight scurvy in which the pleurisy is the most marked pathologic process. He reports seven cases of this kind. (*To be continued.*)

Klinitchesky Journal, August, 1900.

The Ætiology and Prophylaxis of Infantile Tuberculosis. By Dr. J. Comby.—Tuberculosis is the cause of death in from one-fifth to one-quarter of the total number of children who die before the end of the first year. The author recommends the use of tuberculin injections as a means of diagnosis in infants. In his clinic, a solution of tuberculin, one milligramme in one cubic centimetre, is used for these injections. Without this infallible method, the diagnosis often must remain doubtful, and the prophylaxis therefore powerless. In 320 children under two years of age he found 56 with tuberculous lesions at autopsy. Of these 13.27 per cent. were below six months old, 35 per cent. between six months and one year, and 36 per cent. between one and two years. Tuberculosis, then, is very rare in the first months of life, and very frequently found after six months, especially after the twelfth month. From a study of the autopsy records, Comby concludes that the source of infection is in the air which the children inhale, and that the avenue of infection is the respiratory tract, the digestive tract playing a very subordinate rôle. The same is true of the meat and milk which the infants receive. The conclusion is, that if it were possible to destroy all tuberculous sputum there would be no more tuberculosis.

In speaking of the prophylactic measures to be adopted against tuberculosis in children, he says that if one or more members of the family are affected with tuberculosis, the healthy child must be sent away as soon as possible from the source of infection. If such a child can be brought up in the country, in a healthy family, it will escape tuberculosis in spite of the tuberculous heredity. If the removal to the country is impossible, the adults in the family must be informed as to the risk to which the child is exposed, and they must be instructed in the hygienic measures applicable in such cases. The child must live in a separate room, and the tuberculous adults must be warned not to cough in its presence, or to kiss it, or to drink from the same glass, etc. The practice of expectorating upon the floor or into pockethandkerchiefs should be absolutely prohibited, and the adults with suspected tuberculosis must be provided with pocket receptacles for sputum.

Outside the house, in the parks, on the streets, etc., the child must be kept away from suspicious persons who cough and expectorate; away from sick children; from dirty playgrounds, etc. It should not be permitted to take dirty objects or sand into its mouth. The soiled hands and face should be carefully washed after playing, and the child carefully guarded against cold and wet, in order to prevent the bronchial and pulmonary inflammations which prepare the way for tuberculosis.

Cases of Staphylococcus Infection of the Pulmonary Apparatus. By Dr. N. N. Mamonoff.

Modern Evolutionism and Degeneration. A Consideration of the Question Concerning the Relation of Darwinism to Pathology. By P. P. Toutyschkine.

The Development of the Treatment of Gallstones. By Dr. N. D. Titoff.

Miscellaneous.

Resection of the Stomach, a Portion of the Duodenum, and the Greater Part of the Pancreas. By M. Ricard. Translated by George M. Foy, M. D., F. R. C. S. (*Dublin Journal of Medical Science,* August).—At a meeting of the Academy of Medicine of Paris (*Gazette des hôpitaux*) M. Ricard related the history of an illness, and presented the patient, a thrifty woman of fifty-two years. She entered the Hôpital St. Louis, on the 20th of April, 1899, for gastric pains which commenced two years before. After six months her sufferings increased, and were intensified after food. Her appetite completely went; she had vomiting daily. She wasted to a perfect skeleton, not weighing more than 102 pounds. Her skin was pale and bloodless. A tumor, irregular in shape and hard to the feel, was felt in the epigastric region. Carcinoma of the stomach was diagnosticated. A certain degree of mobility, the form of the lump, the change of position of the lump when the stomach is empty and it is distended, caused the surgeon to think that the tumor was situated on the greater curvature of the viscus. On the 26th of April the patient was anæsthetized, and a subumbilical incision made, by which it was discovered that the tumor not only occupied the greater curvature of the stomach, but also extended over the two surfaces, and principally over the posterior wall. The mass was with difficulty moved, and at first seemed incapable of removal; nevertheless, a careful examination showed that the two ends of the mass were accessible—easily at the duodenal end; with difficulty at the cardiac end. This revealed the difficulty that beset the operation.

After making an opening in the gastro-hepatic epiploon sufficient for the insertion of a pair of clamps to cut off the blood supply of the section, the duodenum was cut off at the beginning of its vertical portion. Two long forceps were placed at the left of the neoplasm, and the stomach was cut at the cardiac end of the œsophagus. An oblique fold of tissue, from three centimetres to four centimetres long, was left at the great extremity. The stomach was now detached from its peritoneal bands, and the divided peritoneal fold sewed together with catgut. Withal, though the extremities of the stomach and its greater and less curvatures were free, it was found that the diseased mass had a deep attachment that prevented the removal of the viscus and of the neoplasm. Traction from left to right and from right to left was now made on the mass, and it was found that the growth was attached to the pancreas. The body of the pancreas was now freed, most of the vessels of the spleen liberated, and the to-and-fro movements recommenced. The liberated portion of the pancreas was now dissected from the vena cava and removed. A mass of infiltrated ganglia was detached from the aorta. Some difficulty was experienced in arresting the bleeding on section of the pancreas, hæmorrhagic points having to be freely touched with the thermocautery, and finally compression by a pad of gauze had to be resorted to.

The first step of the operation—that of excision—was now finished; the second and more difficult step, that of reparation, was now to be commenced. The open extremity of the duodenum was now closed by suturing the different tissues together, like-to-like, and finally the peritoneal tissue closed over by Lembert sutures. By careful placing of the preserved tissue around the cardiac orifice of the stomach, a small cavity, about the size of a hen's egg, was formed. At this period of the operation the alimentary tube was divided into two disconnected parts, so far removed and each so fixed that they could not be drawn together. Catching the jejunum, it was drawn up to the cardiac orifice, and the ampulla formed of portion of the stomach was fixed in it as in an ordinary case of gastro-enterectomy. The ampulla looked like a reversed V, the apex being at the œsophagus, and the other extremity being fixed in the jejunum. The operation was now practically finished.

It was found necessary to retain the compress on the cut pancreatic stump, and from it a lamp-wick-like fold of gauze was brought out of the cutaneous wound for drainage. The superficial incision was sewn together by ordinary sutures and a few interrupted silver-wire sutures. One hour and a quarter was occupied in the operation. During the last fifteen minutes the patient got a hypodermic of caffeine and an intravenous injection of five hundred grammes of serum.

Considering the gravity of the operation the sequelæ were good. The highest temperature for the first three days was 100° F. during the sojourn of the patient in hospital; afterward the temperature did not exceed 99° F. On the first day after operation the patient got seventeen hundred and fifty grammes of serum, five hundred being given by intravenous injection. On the evening of the second day she vomited blood. Rectal feeding with peptonized food was commenced on the second day. On the third day the tampon of gauze was removed, and a pancreatic fistula followed, which remained for twenty-five days. On the fourth day she took some milk and some weak grog. A little pottage and some milk were taken on the fifth day. The patient remained in hospital for one month, during which time she put on flesh and gained strength. A histological examination confirmed the diagnosis of cancer of the cylindrical epithelioma variety, which invaded the pancreas and the neighboring ganglia. To-day the patient, nine months after operation, has regained her strength and increased fifty-two pounds in weight. She has a fresh, ruddy color, and, in a word, is in good health.

This case is interesting from the extent and complexity of the operation, from the good convalescence of the patient, from the freedom of any symptom of the return of the disease, and from the good health she enjoys.

M. Ricard considers that success will follow all similar operations. He affirms that extirpation of a portion of the stomach is practically safe, and refers to his eight cases of pylorectomies with seven recoveries published by M. Guillot in the *Gazette des hôpitaux* in confirmation. He has the conviction that the excision of cancers of the stomach, in good time—with average skill, with pure asepsis—are less fatal than extirpation of cancers of the uterus or rectum, which all the world practises freely.

It is for the physician to diagnosticate such cases for the surgeon; it is his to recognize the contra-indications for operation which experience has taught him. He will learn to be bold even to rashness. This case is reported from others equally successful that it may encourage physicians and surgeons who hesitate.

Complete Gastric Intolerance in a Nursling Raised at the Breast, Treated by Iced Milk. Cure.—Dr. H. de Rothschild (*Progrès médical belge,* August 15th) reports the case of a nursling who presented grave gastrointestinal troubles, vomiting, and green and fœtid diarrhœa, so that at the end of eight months it was cachectic to the last degree. After the unavailing trial of intestinal antiseptics, the author gave the infant for food, iced milk (the mother's milk drawn by a breast pump and cooled by a refrigerant mixture). From the first, the infant ceased to vomit, the stools became less numerous, and finally regular and normal, and the child's weight increased between one and three ounces daily.

A Rare Sexual Anomaly.—Dr. Edward Bowe (*Medical Fortnightly,* September 10th) reported recently to the Jacksonville Medical Club the case of a farmer, twenty-seven years of age, who had always enjoyed good health, but since the development of puberty had been embarrassed by the following rare condition. Although he was possessed of an intense sexual desire, with erections firm, persistent, and complete, try as he might he had never lost one drop of semen, or experienced a sexual orgasm. The sensation that he experienced during the sexual act was that of increasing sexual desire and pleasure with the sensation of approaching ejaculation and emission, but it never reached the climax nor did he experience the phenomena of the completed sexual act.

The author considered this not a functional but an organic disorder, due to occlusion of the ejaculatory duct near the urethral orifice. His reasons for this diagnosis were the sensations experienced during the sexual act; the sensation of approaching ejaculation and orgasm being the same as in the normal sexual act. The phenomena of ejaculation, he said, began in the testes and progressed along the vasa deferentia; hence occurred the sensation that accompanied the normal sexual act, but as the seminal fluid never escaped into the urethra, the reactive phenomena of the completed sexual act were not present. It was the reabsorption of so highly a vitalizing secretion as the seminal fluid that was responsible for the excellent condition of the patient's general health, and his persistent sexual stamina. This condition might, the author said, occur as a sequela of gonorrhœa, but as a congenital condition he was unable to find a single case recorded in the literature at his disposal.

Pelvic Pain as a Symptom of Impacted Ureteral Calculi.—Dr. Septimus Sunderland (*Medical Press,* May 30th; *Medical Review,* August), after relating three cases, concludes that a large number of women suffer from persistent pelvic pain of varying severity, caused by a stone in one or other ureter, and that the pain is frequently considered by the medical attendant to be due to ovarian or uterine trouble, or regarded as neuralgic, neurotic, or hysterical. Dr. Sunderland has seen several cases of pelvic pain in women where the diagnosis was difficult and uncertain, in which he has diagnosticated ureteral calculus and the pain disappeared after treatment. But no distinct proof of the diagnosis was forthcoming. He points out that tiny calculi may be too small to be felt *per vaginam* and may be passed without being noticed.

The Lucas-Championnière Operation for Hernia.—Dr. Moty (*Echo médical du Nord,* September 16th) concludes that the operative treatment of hernias by the Lucas-Championnière method is a well-devised operation, the mortality of which approaches more and more to zero, and that it gives satisfactory results in more than ninety-eight per cent. of cases. It is advantageous to perform it without chloroform, and to use catgut for the deeper sutures. The greater part of the operations can be finished off by complete suture of the wound without drainage. Horsehair seems a suitable material for suture of the skin which tolerates its presence for a long time. The employment of a bandage is useless, even in very large hernias when the operative procedure has been really radical, that is, in ninety-eight per cent. of cases.

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Letters to the Editor.

THE DETERMINATION OF THE TOTAL AMMONIA IN DIABETIC URINE.

10 Richmond Square,
Montreal, *August 16, 1900.*

To the Editor of the New York Medical Journal:

Sir: I see by the abstract of Dr. Pavy's article on diabetes mellitus, which appears in your issue for July 30th, that he complains of there being no reliable method known by which to determine the quantity of total combined ammonia in diabetic urine, a matter of great importance in the treatment of severe cases of diabetes mellitus, especially in the young.

I should like to take the liberty of directing Dr. Pavy's attention to Schlössing's method, which is much used for ordinary purposes, and which is particularly well suited for the treatment of diabetic urine, since the addition of *lime* involved in the method so delays the decomposition of the urine that it does not affect the result.

Care must be taken, however, that the urine does not ferment while being collected. In order to prevent this, urine should be collected in a clean receptacle, adding a little thymol or a few drops of chloroform, which addition does not interfere with the Schlössing test.

While the test is well known, it may be as well to give the details of its application, which follow:

Fifty cubic centimetres of standardized sulphuric acid (decinormal acid is a convenient strength) are placed in a shallow beaker and put upon the ground glass plate of a small bell-jar. In another shallow beaker twenty-five cubic centimetres (or less, if the urine is supposed to contain very much ammonia) of the urine under examination are placed, and two or three drops of chloroform added. This beaker is then placed on the ground glass plate by the side of the one containing the standard acid. From fifteen to twenty cubic centimetres of fresh milk of lime are added to the urine and both beakers are quickly covered in by attaching the bell-jar (its edge having been well greased) to the ground glass plate. The ammonia gas evolved is in time absorbed by the sulphuric acid. It is essential that the bell-jar be as small in capacity as possible, and that it remain closed until all the ammonia has been evolved and has entered into combination with the acid. The bell-jar is then opened and the excess of sulphuric acid titrated by standard alkali (an approximately one-tenth normal solution of Bariner's hydroside is convenient), using cochineal as an indicator.

The number of cubic centimetres of the standard alkali required to neutralize fifty cubic centimetres of the standard acid, minus the number of cubic centimetres of the standard alkali required to neutralize the acid remaining in the beaker, equals the number of cubic centimetres of standard alkali equivalent to the ammonia in the twenty-five cubic centimetres of urine used. Knowing the value of one cubic centimetre of the standard alkali, one can readily calculate the weight of ammonia in the urine taken.

Henri Hatch.

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Book Notices.

Twentieth Century Practice. An International Encyclopædia of Modern Medical Science. By Leading Authorities of Europe and America. Edited by Thomas L. Stedman, M. D. In Twenty Volumes. Volume XIX; Malaria and Microbes. New York: William Wood & Co., 1900. Pp. iv-4 to 828.

The greater part of this volume is devoted to an elaborate description of malaria, written by Ettore Marchiofava and Amico Biquami, of Rome. Perhaps the one fact that more than another impresses a reader is the exploitation of the work of the Italian investigators; and this is not due to the authors' lack of acquaintance with the writings of foreign observers, for their references display familiarity with the literature of this subject in all languages.

They concede that Laveran discovered the malarial parasite, but calmly assert that "his discovery was not universally acknowledged for several years; not, indeed, until after the researches made in Italy had enriched the parasitology of malarial infection in man with new data." This will be news indeed to American, English and French pathologists who have conducted independent investigations on these lines.

One is at a loss to appreciate the reasons for the reference to the work of Klebs and Tommasi Crudeli, whose work was on faulty lines, was misleading, and does not deserve the statement that "to these authorities belongs the credit of having begun and promoted the study of malaria by the modern methods of investigation."

In general, however, the subject matter has been very thoroughly and carefully presented.

Dr. Flexner is the author of a concise and readable chapter on micro-organisms, which will be found by the general practitioner who desires the latest information on this topic to be very satisfactory.

The Protozoa are described by Dr. Eugene L. Opie, of Baltimore.

Die Urogenitalmuskulatur des Dammes, mit besonderer Berücksichtigung des Harnblasenverschlusses. Von Dr. Otto Kalischer, in Berlin. Mit 36 farbigen Abbildungen im Text und 33 Tafeln. Berlin: S. Karger, 1900. Pp. xiii-184.

Kalischer's monograph is, so far as we know, the most exhaustive presentation of this most complicated subject that has yet appeared. The aim of the writer has been to give a secure anatomic basis for the physiology and surgery of the perineal region. For this purpose he has studied systematically the muscular structures surrounding the urethra, as well as the non-striated muscular fibres of the canal itself in both male and female. The chief characteristic of his work is the fact that he has studied these structures microscopically, instead of macroscopically as has been done heretofore. The material used consisted of transverse and sagittal sections of pelves of children and adults at various levels, and these have been photographically reproduced in a most satisfactory manner in the plates that adorn this book. With the microscope the writer was able to distinguish more clearly the complex muscular structures of the perineal region, and the results of his study will be certain changes in our conception of the anatomy of the perineal musculature, especially of the arrangement of the muscles compressing the urethra and closing the bladder, together with modifications in the nomenclature of some of these muscles. We regret that space will not permit us to go into details on these points, and feel sure that Kalischer's work will be the foundation of future research in perineal anatomy.

BOOKS, ETC., RECEIVED.

Practical Manual of Diseases of Women and Uterine Therapeutics. For Students and Practitioners. By H. Macnaughton-Jones, M. D., M. Ch., Master of Obstetrics (Honoris Causa), Royal University of Ireland, etc. Eighth Edition, Revised and Enlarged. With 640 Illustrations and 28 Plates. New York: William Wood & Company, 1900. Pp. xxx-947.

A Manual of Syphilis and the Venereal Diseases. By James Nevins Hyde, A. M., M. D., Professor of Skin, Genito-urinary, and Venereal Diseases, Rush Medical College, Chicago, etc., and Frank Hugh Montgomery, M. D., Associate Professor of Skin, Genito-urinary, and Venereal Diseases, Rush Medical College, Chicago, etc. Second Edition, Revised and Enlarged. With 58 Illustrations in the Text and 19 Full-page Lithographic Plates. Philadelphia: W. B. Saunders & Company, 1900. Pp. 9 to 594. [Price, $4.]

Rhinology, Laryngology, and Otology, and their Significance in General Medicine. By E. P. Friedrich, M. D., Privatdocent at the University of Leipzig. Authorized Translation from the German. Edited by H. Holbrook Curtis, M. D., Consulting Surgeon to the New York Nose and Throat Hospital, etc. Philadelphia and London: W. B. Saunders & Company, 1900. Pp. 5 to 348. [Price, $2.50.]

A Text-book upon the Pathogenic Bacteria. For Students of Medicine and Physicians. By Joseph McFarland, M. D., Professor of Pathology in the Medico-Chirurgical College, Philadelphia, etc. With 142 Illustrations. Third Edition, Revised and Enlarged. Philadelphia: W. B. Saunders & Company, 1900. Pp. 7 to 621. [Price, $3.25.]

Bacteriology and Surgical Technique for Nurses. By Emily M. A. Stoney, Superintendent of the Training School for Nurses, St. Anthony's Hospital, Rock Island, Ill., etc. Illustrated. Philadelphia: W. B. Saunders & Company, 1900. Pp. 5 to 190. [Price, $1.25.]

A Book of Detachable Diet Lists. For Albuminuria, Anæmia and Debility, Constipation, Diabetes, Diarrhœa, Dyspepsia, Fevers, Gout or Uric-acid Diathesis, Obesity, Tuberculosis, and a Sick-room Dietary. Compiled by Jerome B. Thomas, Jr., A. B., M. D., Instructor in Materia Medica, Long Island College Hospital, etc. Second Edition, Revised. Philadelphia: W. B. Saunders, 1900. [Price, $1.25.]

Studies in Pancreatic Digestion, Made with Pancreatic Juice. By B. K. Rachford, M. D., Professor of Therapeutics, Medical College of Ohio, etc. Cincinnati: Cincinnati Lancet Press, 1900. Pp. 99.

Transactions of the South Carolina Medical Association. Fiftieth Annual Meeting, held in Charleston, S. C., April 18 and 19, 1900.

The Significance of Chronic Rhinitis in Relation to Ocular Affections. By Edmond E. Blaauw, M. D., of Buffalo. (Reprinted from the *Annals of Ophthalmology.*)

The Comparative Value of Enucleation and the Operations which have been Substituted for It. Being a Paper read before the Section in Ophthalmology of the Thirteenth International Congress of Medicine, Paris, August 2-9, 1900. By G. E. de Schweinitz, M. D., of Philadelphia.

A Combination Sponge-graft and Artificial Globe Implantation after an Enucleation of the Eyeball. By George F. Suker, M. D., of Toledo, Ohio. (Reprinted from the *Ophthalmic Record.*)

Excision of High Rectal Carcinoma without Sacral Resection. By N. Senn, M. D., of Chicago. (Reprinted from the *Philadelphia Medical Journal.*)

Ulceration of the Bladder: Simple, Tuberculous, and Malignant. By E. Hurry Fenwick, F. R. C. S., Surgeon and Pathologist to St. Peter's Hospital for Urinary Diseases, London, etc. London: J. & A. Churchill. Philadelphia: P. Blakiston's Son & Company, 1900. Pp. vi-85. [Price, $1.75.]

Miscellany.

Yellow Fever in Havana.—During the first ten days of October, ninety-eight new cases of yellow fever were reported in Havana. Major Gorgas, of the medical department of the army, is carrying out a systematic inspection of the city, more than 600 houses being inspected daily.

A Yellow Fever Patient in the Port of New York.—A saloon passenger on the Ward Line steamer *Havana* was removed recently from the vessel and taken to the detention hospital on Swinburne Island. This is the first case which has occurred among saloon cabin passengers arriving here this year.

A Memorial to the Late Dr. Skene.—A movement is on foot among the women of Brooklyn to establish a memorial to the memory of the late Dr. Alexander J. C. Skene.

Hospital Buildings and Endowments.—Ground has been broken for the new Boston City Hospital Relief Station on Haymarket Square. The building will be in the early Federal style of architecture and will be three stories high, with basement, covering an area of 60 by 120 feet. The entire building has been especially designed for emergency work and will be used exclusively as an emergency hospital. The funds used for the erection of the hospital are derived from the estate of the late Thomas T. Wyman, of South Boston, who died four years ago, leaving an estate valued at a million dollars, $800,000 of which he left to various charities, including about $120,000 each to the Massachusetts General Hospital, the Homœopathic Hospital and the Boston City Hospital. It is the latter bequest which has been utilized in the erection of the emergency hospital.—It is proposed to submit to the Municipal Assembly of St. Louis an amendment to the bill calling for the new city hospital, to the effect that an additional building be constructed to be devoted to surgical work exclusively. The adoption of this amendment will necessitate the rearrangement of certain details of the plan suggested in the report of the Hospital Commission, so as to make the proposed structure adjoin the octagonal ward. The change will be accomplished by swinging around the octagonal ward ninety degrees so that it will spread out from north to south, instead of from east to west, as first intended.—The Infants' Summer Hospital at Rochester, N. Y., has received $500 under the will of the late Marcus Michaels, of that place.—The War Department has rejected all the bids recently tendered for the erection of a post hospital at Fort Keogh, Mont., on the ground that they exceeded the sum of $20,000 set by Congress as the limit to the cost of any post hospital.—One hundred physicians of Southern California have formed a corporation in Southern California to erect a large sanitarium at San Bernardino. A building, costing $25,000, has been completed at Denver, Colo. The hospital is located about two and a half miles southwest of the city.—Mrs. S. Weir Mitchell, wife of Dr. Weir Mitchell, has announced her intention of presenting to the University of Pennsylvania funds for the erection of a building as a memorial to her daughter, who died about two years ago.

The New York Obstetrical Society.—At the annual meeting of the New York Obstetrical Society, held on Tuesday, October 9, 1900, the following officers were elected for the ensuing year: President, Dr. H. J. Boldt; first vice-president, Dr. Ralph Waldo; second vice-president, Dr. H. N. Vineberg; recording secretary, Dr. G. L. Brodhead; assistant secretary, Dr. G. G. Ward, Jr.; corresponding secretary, Dr. E. E. Tull; treasurer, Dr. J. Lee Morrill; pathologist, Dr. W. S. Stone.

Detroit Academy of Medicine Elects Officers.—At a meeting of the Detroit (Mich.) Academy of Medicine, held on October 9th, the following officers were elected for the coming year: President, Dr. Arthur D. Holmes; vice-president, Dr. Heneage Gibbes; secretary and treasurer, Dr. H. D. Jenks, and director for three years, Dr. H. A. Cleland. Dr. Heneage Gibbes was delegated to investigate the health board rule recently adopted requiring physicians to report all cases of amygdalitis. The Physicians' Business League, recently organized, will also be investigated, a special committee consisting of Dr. Frank Walker, Dr. William F. Metcalf and Dr. F. B. Tibbals, having been appointed for that purpose.

A Special Commission to Select a Site for the Washington Hospital.—Some fifty or more sites were offered to the Commissioners of the District of Columbia as locations for the new Municipal Hospital, but all the bids have been rejected by the commissioners, who considered the prices named exorbitant. The selection of a site will be placed in the hands of a special commission, and it is believed that much better terms can be made at private sale than were offered by land owners in their public bids. The commissioners have the sum of $100,000 at their disposal.

A Cancer Prize.—A prize of fifteen guineas (about $80) for the best essay on the Present State of Cancer Science, offered by the Cancer Society in England, through the liberality of Miss Scott, has been awarded, according to the *British Medical Journal* for September 29th, to Dr. Alexander Fraser, of Manchester.

Elephantiasis and Mosquitoes.—According to the *Gazette médicale de Paris* for September, the members of the scientific expedition sent by the School of Tropical Medicine of Liverpool to Nigeria, on the west coast of Africa, have determined the fact that elephantiasis, like malarial disease, is due to the bite of the mosquito. In the tubular labium of that insect they have discovered the elephantiasis worm. This discovery appears to have been made also simultaneously in England in mosquitoes imported from Australia and in India.

The Immunization of the Female against Spermatozoids.—In a series of editorials in the *New York Medical Journal* for January 28, 1899, February 25, 1899, and April 29, 1899, entitled respectively The Sterilization of Women, The Disquieting Frequency of Criminal Abortion, and The Sterilization of Men, we endeavored to consider dispassionately the question of sexual ethics from the often conflicting standpoints of the rights of the individual and the rights of the community. In the first of these articles we said that "we cannot but feel that there are numberless instances in which a safe and easy method of rendering women sterile when pregnancy would be a source of more than ordinary danger to the individual, or a direct wrong to the community, is far better than a harsh prohibition of that union without which, when rightly entered upon, the highest aim and incentive of life is incomplete, and in many cases life itself becomes a burden and a despair." In relation to this subject, we reproduce the following editorial remarks from *Obstetrics* for August:

"There is something startling in the suggested possibilities involved in recent experiments by Metschnikoff regarding a serum method of securing immunization against spermatozoa. And yet, if we look upon the individual cells of an animal as essentially independent units, and upon bacteria as animal in character, the span from bacterial immunity to physiological cellular immunity becomes quite short, and the analogy between the two seems natural and close. Skutsch (*Fortschritte der*

Medicin, May, 1900), says, reviewing an article by Moxter (*Deutsche medicinische Wochenschrift,* 1900, 4): 'Since it has been found possible to immunize the lower animals by the use of a specific serum, not only against bacteria, but also against physiological elements, *e. g.*, white corpuscles, milk cells, erythrocytes, ciliated epithelia, etc., the question has arisen, what is the normal relation of the organism to the spermatozoa, and is the relationship changed when spermatozoa have been taken into the body by resorption? According to Metschnikoff, sheep spermatozoa in normal salt solution, injected into the peritoneal cavity of a guinea pig, lose their mobility very much more quickly if the guinea pig has been previously subjected to a hypodermic injection of sheep spermatozoa. The sperm cells are not dissolved and hence we have to do, not with a spermatolytic, but with a spermatocidal process. The blood of the injected animal is not the functionating agent. Spermatozoa brought into contact with the serum of normal animals, and with that of animals treated with sheep sperm, lose their mobility in each instance in from two to six minutes. On the contrary, when the serum of animals, treated as described, is injected into the peritoneal cavity of normal animals, a stronger spermatocidal effect is observed than when the serum of normal animals is used. Experiments upon animals have shown that the immunizing serum seems to have no special effect upon other cells, except that it has a strong hæmolytic action upon the blood corpuscles of the sheep. The antagonistic agent contained in the immunizing secretion has not only a destructive action upon the spermatozoa, but also a specific hæmolytic action. Its affinity for the spermatozoa is greater than for the blood corpuscles, for when spermatozoa and blood corpuscles are added to the serum the latter are not affected at all. Its affinity, however, for the spermatozoa of animals other than the sheep is comparatively very slight.

"'In addition to the properties already named the serum has the specific property of causing the agglutination of the spermatozoa of the sheep.'

"It is not clear from the above whether Metschnikoff, in stating that 'the immunizing serum' seems to have its peculiar effect upon the sheep only, refers to sheep serum or to that of other animals.

"It is quite plausible that the spermatocidal effect might apply only to animals of the same species, while its failure, when crossed to different species, would not offer an *a priori* invalidization. But it certainly would not appear plausible that this immunization takes place only in sheep and not in other animals treated with a similar serum obtained from their own class. It is a long way from what has been accomplished to the determination of the thousand and one questions intermediate between this, and that of final immunity of the ovum against spermatozoic influence.

"The work already performed is nevertheless of profound interest, and much further light does not seem difficult to obtain."

A Memorial to Dr. J. M. Da Costa.—The board of trustees of the Jefferson Medical College, Philadelphia, have decided to establish a laboratory to be known as the J. M. Da Costa Memorial Laboratory of Clinical Medicine, in honor of the memory of the late Professor Da Costa. Donations toward the building fund are invited.

The Alvarenga Prize of the College of Physicians of Philadelphia.—The College of Physicians of Philadelphia announces the next award of the Alvarenga prize, derived from the income for one year of the bequest of the late Señor Alvarenga, and amounting to about one hundred and eighty dollars for July 14, 1901, provided that an essay deemed by the committee of award to be worthy of the prize shall have been offered. Essays intended for competition may be upon any subject in medicine, but must not have been published, and must be received by the secretary of the college on or before May 1, 1901. Each essay must be sent without signature, but must be plainly marked with a motto and be accompanied by a sealed envelope having on its outside the motto of the paper and within the name and address of the author. It is a condition of competition that the successful essay or a copy of it shall remain in possession of the college; other essays will be returned upon application within three months after the award.

The Alvarenga prize for 1900 has been awarded to Dr. David De Beck, of Cincinnati, Ohio, for his essay entitled Malarial Diseases of the Eye.

Diphtheria.—Something approaching an epidemic of diphtheria has appeared in an Italian settlement at Lake View, a suburb of Cleveland, and a public school in the vicinity has been closed on account of the outbreak.—A school in Everett, Mass., has been closed on account of a threatened outbreak of diphtheria.—Several cases of diphtheria have occurred at Ithaca, N. Y., and some fear is felt that it may become epidemic.

Hospital Staff Appointments.—At a recent meeting of the Philadelphia Board of Charities and Corrections the following appointments were made: Dr. Joseph McFarland, of the Medico-Chirurgical College, and Dr. Simon Flexner, of the University of Pennsylvania, as pathologists at the Philadelphia Hospital; Dr. R. F. Sonnekamp, as assistant physician in the insane department, and Dr. Robley D. Newton, as surgical registrar.—Dr. R. F. Bennett, of Litchfield, Ill., has been appointed superintendent of the Southern Illinois Hospital for the Insane to fill the vacancy caused by the resignation of Dr. W. A. Stokes, who has accepted the post of superintendent of the Indiana Southern Hospital for the Insane at Evansville, Ind.—Dr. William Hausherr has resigned his position as house physician in the Emergency Hospital at Detroit, Mich.—Dr. Webster, of the Rockwood Asylum at Kingston, Ont., has been transferred to the Hamilton Asylum, and Dr. Herriman, of the Hamilton Hospital, has been promoted to a higher position on the staff of the Kingston Hospital.—Dr. Joshua F. Lewis, of Madden, has been elected by the Massachusetts Board of Charities as superintendent of the department of adult poor to succeed the late Dr. Stephen C. Wrightington, of Fall River. Dr. Lewis graduated in medicine in 1887 and the same year entered the service of the Massachusetts Board of Lunacy and Charity. When that board was divided into two sections two years ago Dr. Lewis was made superintendent of the "settlement" division.

The Tri-State Medical Society of Tennessee, Alabama, and Georgia held its annual meeting in Chattanooga on Thursday, Friday, and Saturday, October 11th, 12th, and 13th. In addition to the list of papers published in our issue for October 6th as being presented to this meeting, we must name the following: Report on Gall-bladder Operations, by Dr. William P. Nicholson, Atlanta, Ga.; Report on Varicocele, by Dr. Willis F. Westmoreland, Atlanta, Ga.; Gunshot Wounds, by Dr. T. L. Smith, Cleveland, Tenn.; Injuries to the Brain and their Treatment, by Dr. Hugh Boyd, Scottsboro, Ala.; Observations of Puerperal Eclampsia, by Dr. S. W. Purefoy, Lowndesboro, Ala.; Importance of Blood Examinations, by Dr. E. C. Anderson, Chattanooga, Tenn.; Report of Two Cases of Castration, by Dr. B. White Sutton, Huntland, Tenn.; Uranalysis of Prognostic Value in General Practice, by Dr. D. S. Middleton, Rising Fawn, Ga.; Report on Removal of Ovarian Tumors, by Dr. E. C. Davis, Atlanta, Ga.; Life, Physical and Psychical, by Dr. J. E. Purdon, Turlock, Cal.

Typhoid Fever in a Prison.—Ten cases of typhoid fever are reported in the prison at Jackson, Mich.

Idaho State Medical Society Meets.—At the regular semi-annual meeting of the Idaho State Medical Society held at Boise City on October 6th, papers on the following topics were read:

Interutero-placentary Hemorrhage, by Dr. H. A. Castle, of Pocatello. Discussion opened by Dr. W. W. Watkins, of Moscow. Some of My Mistakes, by Dr. George Collister, of Boise. Reciprocity between State Medical Examining and Licensing Boards, by Dr. C. E. Worthington, of Mullen. Discussion opened by Dr. C. L. Sweet, of Boise. Ophthalmia Neonatorum; Its Prevention and Treatment, by Dr. Adolph Blitz, of Minneapolis. Hydraulic Pressure, a Means Used to Open the Common Duct which Remained Closed after Removal of Impacted Gall-stone, by Dr. L. P. McCalla, of Boise. Discussion opened by Dr. J. L. Conant, of Genesee. Position in After-treatment of Abdominal Operations, by Dr. D. W. Springer, of Boise. Discussion opened by Dr. George Collister, of Boise.

Queen's Medical College, Kingston, Ont.—Dr. Fife Fowler, for fifty years connected with this college, has recently resigned the professorship of the practice of medicine. Dr. James Third has been appointed to fill the vacancy.

Gift for the Hebrew Hospital, Baltimore.—Mrs. Florence Levy Eversman has given $500 to this hospital in memory of her parents and brother.

The Smoke Nuisance.—We in New York are not alone, it appears, in suffering from a sudden recrudescence of the smoke nuisance. The *Lancet* for September 29th complains of "the recrudescence of the smoke nuisance during the past few weeks" in London, and calls upon the health authorities to at once suppress the evil.

The Wayne County (Mich.) Medical Society recently elected officers as follows: President, Dr. J. J. Mulheron; secretary, Dr. C. G. Gordon. Dr. Kirker, the retiring president, gave the members a banquet. The society has 268 members.

The Association of Anatomists.—According to the *British Medical Journal* for September 29th the Association des Anatomistes, which was founded last year, held its second meeting in Paris recently. The session was devoted to the discussion of business matters, the association having for purposes of scientific work joined forces with the Section of Anatomy and of Histology and Embryology of the International Congress of Medicine. In the absence of Professor Mathias Duval, the chair was taken by Professor Henneguy, of the Collège de France. It was decided that the next meeting should be held at Lyons in 1901, on Monday, Tuesday, and Wednesday of the week before Easter, under the presidency of M. Renaut, with M. Testut, M. Arloing, and M. Ledouble, as vice-presidents. Thirty-two new members were admitted, among them being Professor Waldeyer, Professor His, Professor Golgi, and Professor Eternod. The secretary of the association is Professor Nicolas, Faculté de Médecine, Nancy.

Wisconsin Board Refuses to Recognize the Metropolitan College of Illinois Diplomas.—At a meeting of the Wisconsin Board of Medical Examiners held at Oshkosh on October 9th seventy-five licences were granted to applicants holding diplomas from reputable colleges. Licences were denied to four applicants presenting diplomas from the Metropolitan College of Illinois, the charter of which is said to have been revoked by the State officials.

Diphtheria in Massachusetts Schools.—The daily papers of Boston call attention to the rapid spread of diphtheria in Charlestown and Somerville, there having been over fifty cases reported in the latter suburb within the first twelve days of October, nine of which resulted fatally. In Charlestown the conditions have not been so serious, though there has been a rapid increase in the number of cases among the schoolchildren of that district since the first of October.

Osteopaths to be Tried for the Illegal Practice of Medicine.—Active steps are being taken looking toward the suppression of osteopathy in several States. The attorney-general of the State of Nebraska has written an opinion to the effect that the practice of osteopathy was the practice of medicine in a legal sense, and a practitioner of osteopathy has been arrested on this ground for the illegal practice of medicine. The statutes of Nebraska provide that no one can lawfully practise medicine in that State "without first having obtained and registered the certificate provided for." The information charged Dr. Little with each of four counts included in the definition of practising medicine in the section of the statute pertaining to the subject, to wit: "That he did 'operate on,' 'profess to heal,' 'prescribe for,' and otherwise 'treat' a physical 'ailment of another.' " The jury found him guilty on the third count of the information charging that he "did unlawfully treat by rubbing and manipulating with the hands on the person for a physical ailment."

It is argued that the State board of health has the right to decide the question of who is entitled to a certificate. The question of ability or skill is not up for discussion or consideration. It is immaterial what osteopathy is or is not, whether the treatments of Dr. Little were beneficial or injurious or neither, said attorneys for the State. It being proved that he was not registered or licensed to practise, the only question is, does "otherwise treat" of the statute cover "osteopathic treatment"?

In Milwaukee, Wis., there are six men practising osteopathy and the Wisconsin board of medical examiners has decided to prosecute all osteopaths who have not been duly registered as physicians. The entire prosecution will be based upon the alleged failure of the practising osteopaths to conform to the State law requiring physicians to be licensed and to register. The fact that the osteopath, the board maintains, holds himself out to treat and cure disease without having complied with the provisions of the laws, is an offense without going into the merits of the treatment or science of osteopathy. The graduate of the osteopathic college cannot well comply with the board's medical examination and hence fails to obtain a licence.

THE NEW YORK MEDICAL JOURNAL, October 27, 1900.

Original Communications.

SUPPLEMENTARY REPORT ON A RECURRENT TONSILLAR TUMOR.*

By R. P. LINCOLN, M. D.,
NEW YORK.

The subject of recurrence of the tonsil after excision was thoroughly reviewed by Dr. Hopkins at the last meeting of this association. My purpose on this occasion is to complete the history of a case reported by Dr. Delavan at the session in 1897, under the title Tertiary Ulceration Simulating Sarcoma of the Tonsil. Especial interest attaches to this case, not only because the growth recurred, but because of the question of diagnosis, the microscopical appearance of sections from the mass removed at the first operation being differently interpreted by two pathologists. It will be well to epitomize Dr. Delavan's account to remind you of the case:

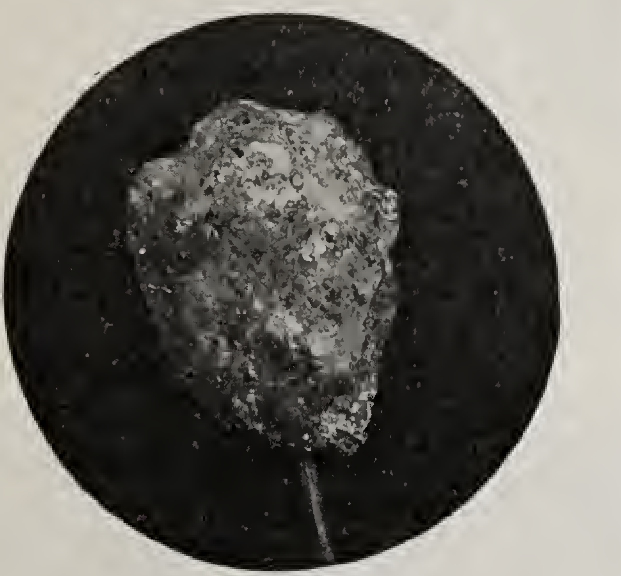

Fig. 1.—The excision surface.

The patient was a man in excellent physical condition, forty-five years of age, with a healthy family, and whose parents enjoyed good health through a long life, and careful inquiry, in which the family physician cooperated, failed to detect any symptoms, present or past, of possible syphilis. For two months soreness had been noticed in the left side of the pharynx and an increase in size of the tonsil. With this enlargement the tonsil became inflamed and broke down, an erosion appearing near the centre of its surface. This extended until half the tonsil became involved in a deep ulcer, with foul interior and everted edges. The rest of the tonsil was indurated, but there was no marked extension of general infiltration outside of it. Several cervical glands were slightly enlarged and indurated. There was moderate pain in deglutition and upon palpation. The tonsil was removed by the cold wire snare, and the use of iodide of potassium, previously given, was continued.

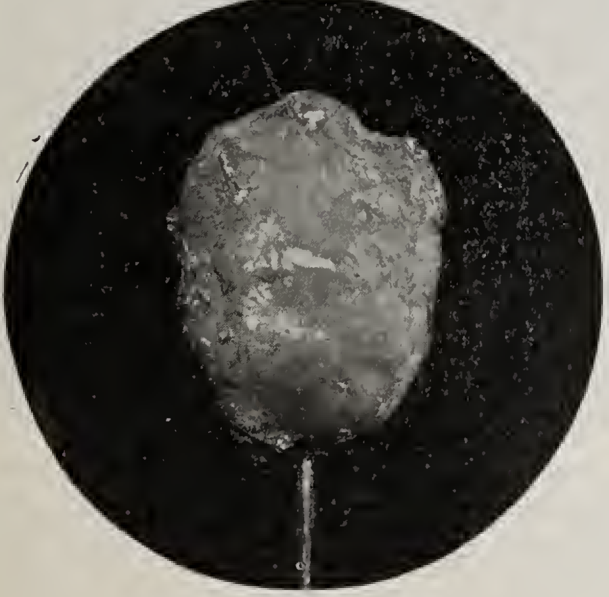

Fig. 2.—The oral surface.

Dr. Delavan removed specimens for microscopical examination before his final operation, which were reported upon by several pathologists. Some considered the case one of sarcoma, while others were in doubt. The following is Dr. Hodenpyl's report: "The lesion is one of a chronic hyperplastic nature. If it were a polyedral-cell sarcoma (which is a highly malignant variety), we should confidently expect a rapid growth. . . . The conditions observed, moreover, do not exactly resemble an ordinary chronic hyperplasia, in that, besides a considerable amount of fibrous tissue, giant cells, etc., there is a very unusual number of endothelial cells in the sections, an appearance sometimes found in cases known to be syphilitic."

Dr. Delavan therefore concluded, because of the absence of rapid growth and the presence of a large number of endothelial cells, the diagnosis of chronic hyperplasia and that of sarcoma should be abandoned and a provisional diagnosis of syphilis of the tonsil made, and adds, "the subsequent history of the case fully confirmed the diagnosis."

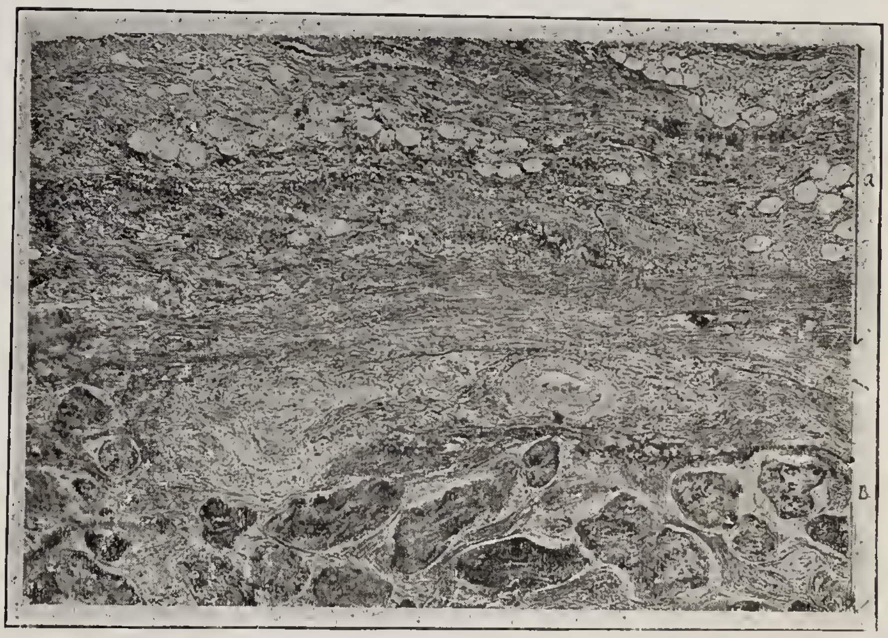

Fig. 3.—*A*, tissue representing the pharyngeal wall and limiting the growth of the tumor outward. The incision effecting the removal was considerably deeper than is shown here, and extended far beyond the limits of the growth. , the outer edge of the tumor. × 85 diameters.

The first operation was in November, 1896. Iodide of potassium was taken most of the time during the following eighteen months. One year from the date of operation, the patient states, the growth had attained its former size. I first saw him in October, 1898. Unfortunately, at this time Dr. Delavan was disabled, and, the necessity for immediate action being apparently urgent, he referred the case to me for operation.

On examination, there was seen a tumor in the region of the left tonsil, occupying half the pharyngeal space.

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*Read by title, before the American Laryngological Association at its twenty-second annual congress.

It was light pink in color, with two or three nodules protruding from its surface, which was not ulcerated. It was not painful to pressure, but gave to the sense of touch the firm feel of enchondroma. It was agglutinated to the pillars of the palate, both anterior and posterior, but did not, apparently, permeate the adjacent tissues. There was some external fullness opposite and there were two or three indurated lymphatic glands, but the tissues of the neck did not appear involved.

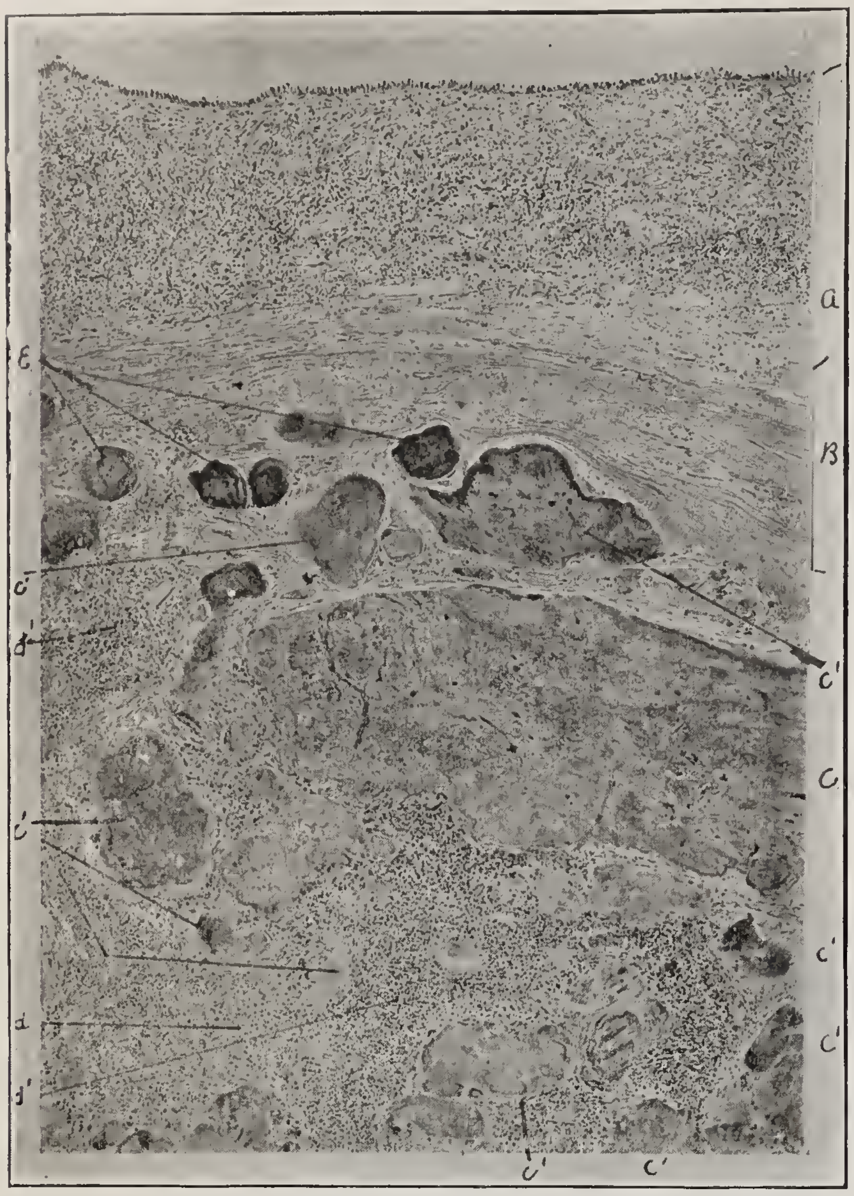


FIG. 4.—*A*, lymphoid tissue and surface epithelium. *B*, zone of fibres limiting the growth of the tumors. *C*, large mass of necrosis. *C'*, smaller masses representing different stages of colloid-like change. , round cells and endothelial cells undergoing transformation. *D'*, practically unchanged round cells. *E*, transformed blood-vessels. × 85 diameters.

The day before my operation, with the aid of cocaine and suprarenal extract, I dissected the pillars of the pharynx from the tumor, and the following day dissected and enucleated the whole mass, the patient being under ether. On this occasion, too, the suprarenal extract was continuously used, and to its effect I ascribe an almost bloodless operation.

At this writing, eighteen months after the removal, there is no symptom of return of the trouble. Dr. Goodwillie, who was present, immediately made a cast of the tumor, a model of which I am thus enabled to show you. It is an accurate representation in wax. I wish the microscopical disclosures were as satisfactory. I am indebted to Dr. Edwin S. Steese for much painstaking work in mounting sections for the microscope from the specimens, unfortunately not well preserved. The following is his report:

DR. STEESE'S REPORT.—"The removed mass was of firm consistence and oval in shape. It measured 3.5 ctm. long and 2.5 ctm. in diameter. Its surface was quite smooth, with the exception of a slightly elevated area, measuring 1.5 ctm. by 1 ctm., which projected inward in the direction of the growth of the tumor. This area was composed of a number of wart-like excrescences, and appeared to be the seat of active inflammation.

"Microscopical examination showed the presence of many leucocytes thickly grouped in certain spots, giant cells, and polygonal (epithelial) cells, nearly all of them, especially the last two varieties, in a more or less advanced state of change, resembling colloid degeneration; many old blood-vessels and new ones in different degrees of development; also numerous large and small homogeneous areas, many of which resembled colloid and mucoid material very closely; but the great majority, and especially the larger masses, were the result of a general necrosis. Some of the smaller masses suggest quite forcibly the possibility of a transformation of cellular elements, and others are the result of a hyaline degeneration of the walls of the arteries.

"Scattered throughout the specimens taken from the less active part of the tumor are a few stellately arranged crystals, resembling tyrosine. Formative processes are very evident in the older portions of the growth, and it seems probable that the greater number of the smaller masses of colloid-like material are portions of a primary

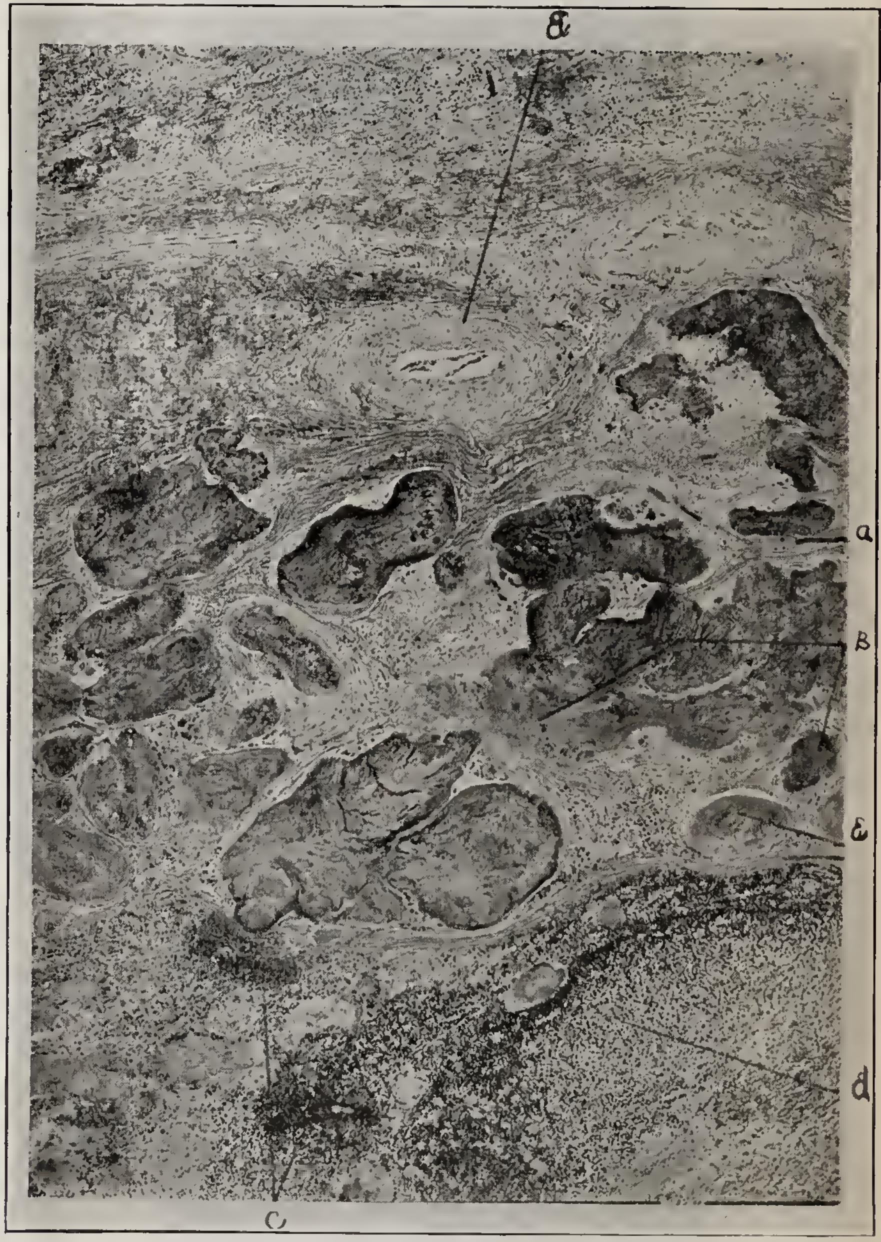


FIG. 5.—*A*, new tissue separating the bodies. *B*, masses of colloid-like material showing different stages of change. *C*, dense aggregation of round cells. *D*, a large area of round and endothelial cells undergoing gradual disintegration. *E*, blood-vessels showing different degrees of transformation. × 85 diameters.

large necrotic area which has become wedged apart and broken up by these processes. As the actively involved part of the tumor is approached, the more pronounced is the evidence of a general necrosis, and there is less and less evidence of a new tissue formation. In the most active portion there are large masses of disintegrated tissue, in which are a few spots where the original structure is distinguishable.

"Although there is no direct evidence of any more activity of the cell elements than is frequently found in inflammatory processes situated in glandular structures, yet the changes in many of the cells certainly suggest the possibility that some of the homogeneous matters are a result of a degeneration of cell groups. The preponderance of evidence, however, seems to prove the process to have been one of *simple hyperplastic inflammation,* accompanied by unusual cellular changes and productive of peculiar masses of substance much resembling colloid and mucoid material, which, however, did not respond to the special tests of those degenerations."

Our fellow, Dr. Wright, who made a study of these slides, has kindly submitted this statement, that "such tissue as is preserved from degenerative change is granulomatous and, to my mind, very characteristic of syphilis. I am unable to say what the queer-looking bodies are. The material, however, does not correspond to any abnormal tissue which I have ever seen in adventitious growths; certainly there is nothing malignant about them. Some of it is doubtless broken-down gumma, but the peculiar laminated bodies in it are unusual.

Dr. Hodenpyl, whom Dr. Delavan quoted in full in his paper, also reported on the later growth. He examined the mounts made by Dr. Steese, and also made several sections from various parts of the tumor in formalin. After referring to its imperfect preservation, he says: "One can still make out that one surface is covered by squamous epithelium. In parts there were aggregations of lymphoid elements, and in other parts collections of large flat cells which may be assumed to be proliferated endothelium. I see nothing to warrant the suspicion of malignant disease. As far as syphilis is concerned, there is also no conclusive evidence."

I have submitted these reports from different observers in order that you may have every possible light to form independent opinions as to the nature of the disease and follow to its conclusion an interesting case. Perhaps many, considering the lack of definiteness of histological manifestations and the continued good health of the patient, will justify the suggestion, which may become a conviction, that the tumor should be regarded as being of ordinary inflammatory or hyperplastic origin.

These photomicrographs of sections, as well as the slides themselves, I am happy to be able to submit to your inspection. I wish to offer my thanks to Dr. George S. Dixon for his skillful work in producing them. They show in a general way the peculiar structure of the tumor. One offers a decided contrast to the others, in the lines of muscular fibre it presents. They are of the wall of the pharynx and limit the outward growth of the tumor.

"THIMBLES" FOR MASSAGE AND STRIPPING OF THE SEMINAL VESICLES.

By J. RILUS EASTMAN, B. Sc., M. D.,
INDIANAPOLIS, IND.

The procedure known as stripping or milking the seminal vessels has come to be regarded by many as a valuable aid in the treatment of chronic seminal vesiculitis. It is the common practice to execute this stripping with the tip of the index finger introduced high into the rectum, gently and firmly pressing or kneading as much of the organ as is within reach from above downward, so as to eject the mucopurulent contents through the narrowed ejaculatory duct into the prostatic urethra.

By Fuller we are instructed to place the patient with his body at a right angle to his lower extremities, and with him in this position to introduce the finger, meanwhile making counter-pressure upon the lower abdomen, the bladder being, if possible, well filled. Should there be resistance of the perineal muscles, as in stout, thickset individuals, the operator should place his foot upon a chair and, with the elbow well braced against the knee, exert such pressure as will enable the finger to reach the vesicle, the resistance of the muscles having been overcome.

It has been observed, however, that it is seldom possible to reach more than the lower half of the vesicle, notwithstanding Fuller's precepts are carried out to the letter. Upon this subject Fuller himself says: "Only the lower half of the body of the vesicle can be felt ordinarily by the finger, the rest being beyond reach."

Lydston states that, unless the physician has an extremely long index finger and a well-developed "tactus cruditus," it is probable that in a majority of instances the seminal vesicles are either not massaged at all, or at most imperfectly. This, he says, is his conclusion from observation in the treatment of cases that have been said to have previously had prolonged massage treatment for seminal vesiculitis.

In Taylor's volume on *Sexual Disorders* we find the following: "It is no easy matter in many cases to reach the vesicles and clearly define their size and shape, even when every favoring condition is present. Then, again, at the best, only the lower half of the vesicle is really accessible to the stripping process. Further than this, it must be clearly remembered, as has already been pointed out, that the seminal vesicles are made up of blunt-ended tubes and diverticula, and that they have not the structure and arrangement of racemose glands, firm pressure on which will cause the contents to exude into the excretory duct. It is a physical impossibility to cause the contents of the third tube (or, as it has been called, the 'handle of the jack-knife') to exude into the urethra, for the reason that it is a blunt sac or pouch, its non-patulous part ending downward near the prostate. This portion of the vesicle is fully as large as the other two thirds are, and the contents of this large part cannot in any way be extruded into the urethra."

For anatomical reasons it will be clearly seen that the utmost that can be accomplished in stripping or milking the vesicle is to act upon about one quarter of this whole structure. In theory, stripping the vesicles seems to be rational treatment, in that it seeks to rid these organs of retained products of chronic inflammation and to restore tone in muscular and mucous tissues which had become relaxed and flabby. Undoubtedly in some cases benefit does result from the procedure.

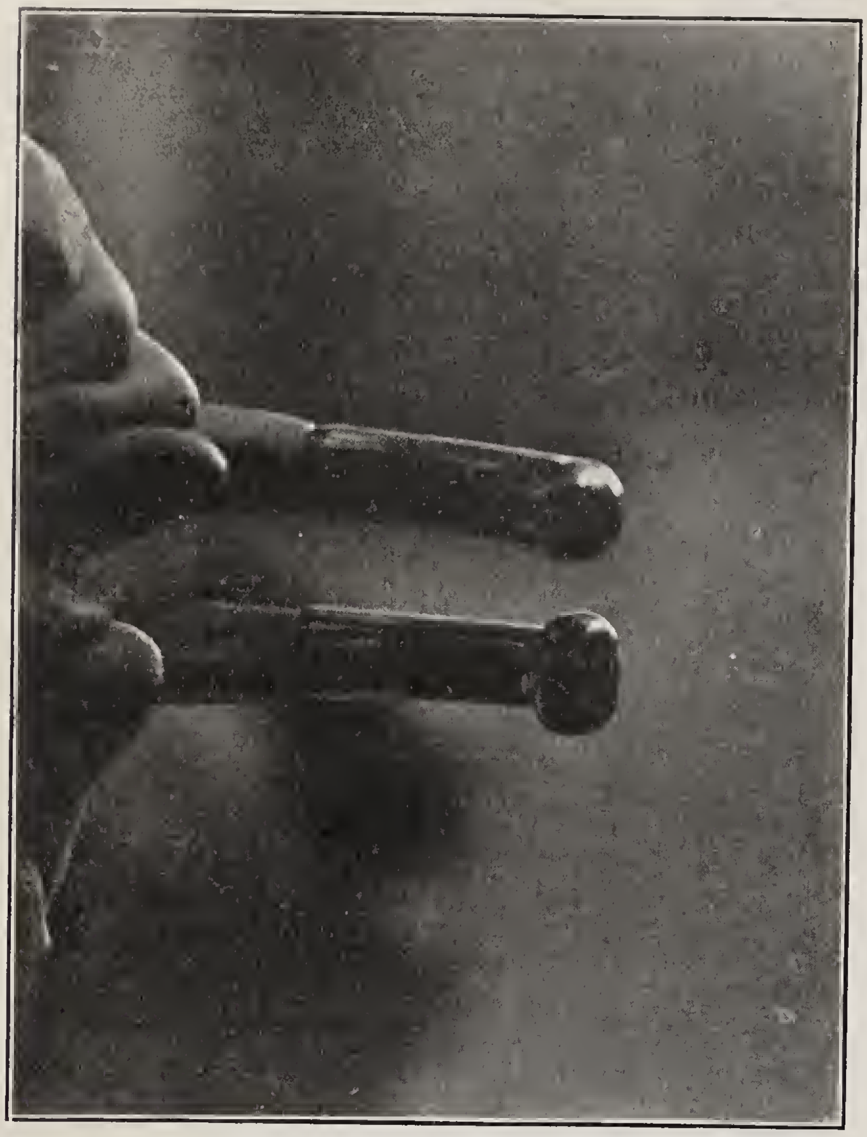


FIG. 1.—"Thimbles" for stripping the seminal vesicles. One has a large, broadened extremity; the other is only slightly enlarged at the end.

Fuller observes that the real obstacle to success does not lie in the length of the index finger, but in the lack of ability on the part of the operator to overcome the resistance of the perineal muscles. This statement is confusing. There can be no doubt that the rigidity of the perineal muscles (unless this is overcome by gentle non-irritating pressure, as Fuller directs) will offer great resistance at times to complete entrance of the finger; but it is difficult to understand why a long finger, all things being equal, cannot more efficiently massage the vesicle than a shorter one. It is certain that nearly all of the organ must be beyond the reach of the short finger, since the tip of the longest finger, in any event, will go no higher than the middle of the vesicle.

The pathological condition present in chronic seminal vesiculitis is not restricted to the lower portion of the vesicle, but in nearly every case obtains throughout its length. The mucopurulent material which it is desired to eject is distributed throughout the three tubes. Taylor has explained that for plain anatomical reasons the contents of the "jack-knife handle" third tube and of the upper diverticula cannot be expelled into the urethra by pressure upon the lower portion of the vesicle. These facts would seem to warrant the assumption that, if the best results are to be obtained, the entire vesicle should be stripped. It appears that the index finger is always too short to massage the whole of the organ, and it becomes expedient, therefore, to add to the length of the finger by the use of a suitable instrument.

The "thimbles" shown in the cuts have been designed to imitate as closely as possible the slightly flexed finger. They are made of brass, nickel-plated, and long enough (three inches) to add about an inch and three-quarters to the length of the massaging finger. The distal end is broadened to the width of an inch (smaller size, three-quarters of an inch) and swells rather flatly in its full breadth from the palmar surface. The shank of the thimble is slightly curved, the convexity being forward. With the patient in the posture suggested by Fuller (standing, knees straight, body bent forward at right angles), the instrument is readily introduced. During its introduction the palmar surface of the entering finger should be upward, the concavity of the thimble toward the sacrum. When the instrument has been gently introduced as far up as possible, the perineal muscles having become relaxed, the finger and thimble should be so turned that the palmar surface of the finger faces the bladder. The broadened and projecting anterior face of the distal end of the thimble will now rest high up on the body of the vesicle or above it. While gentle pressure is maintained, the thimble should now be drawn slowly forward along the line of the vesicle, the manœuvre being aided by counter-pressure with the free hand over the lower abdomen. By passing the instrument successively

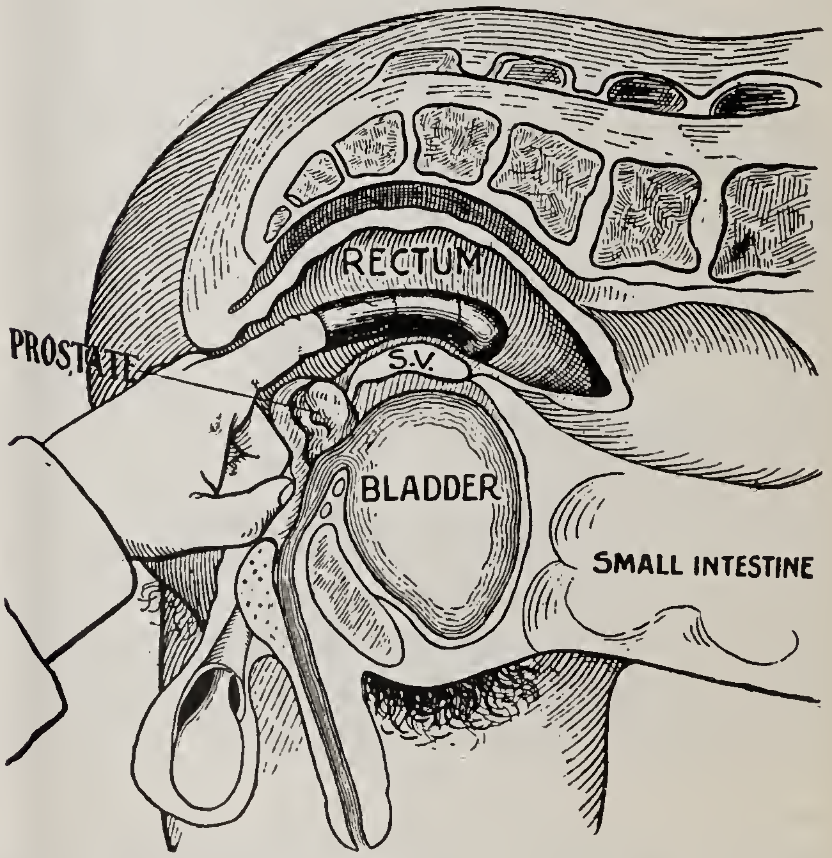


FIG. 2.—The added finger length secured by the use of the thimble.

backward and forward much of the contents of all parts of the vesicle, including the diverticula and blind sac, may be extruded into the prostatic urethra. The dilated distal end of the thimble is "loaded," and this feature together with the curve in the shank of the instrument (continuing in the arc of the slightly bent finger) makes it possible to secure considerable pressure upon the vesicle without additional flexion of the finger, simple withdrawal of the instrument over the distended vesicle producing all the pressure needed.

These instruments have been used by the writer for several months and in a considerable number of cases, with good results. It should be understood that the instrument is not to be used until a careful examination has been made with the finger alone to ascertain the exact condition of affairs. Such examinations should be made from time to time during the course of treatment. In the nature of things, the "thimbles" will be serviceable in chronic cases only.

FRACTURES OF THE NOSE.*

By THOMAS AMORY DeBLOIS, M. D.,

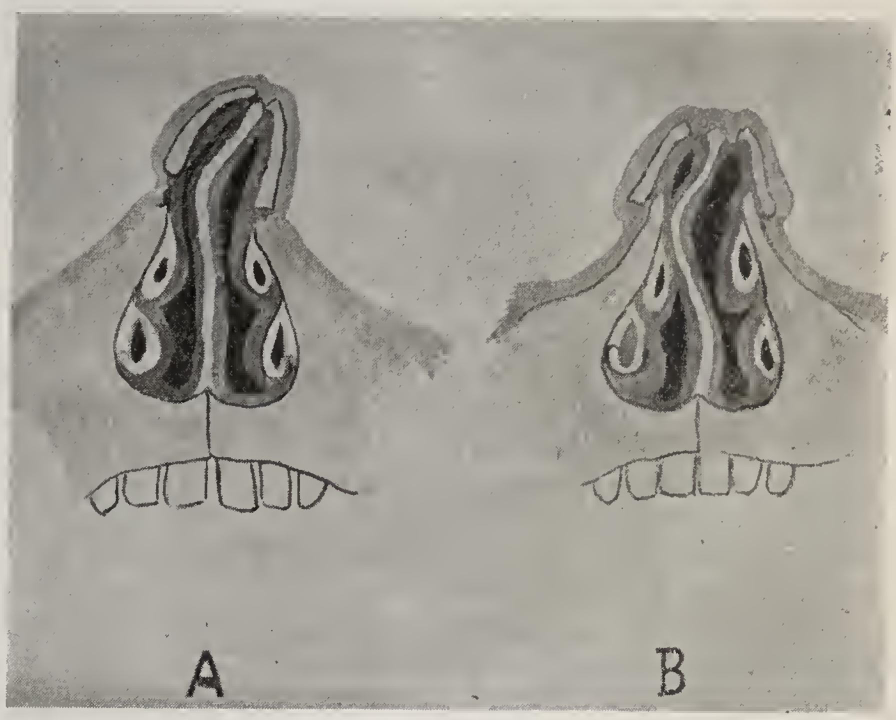
BOSTON.

WHAT is commonly called a "broken nose" is the precursor of so many of the deformities with which the rhinologist has to deal, that a short article on this subject should not seem to trespass on the domain of the general surgeon.

Premises.—1. A broken nose is not usually actually broken. 2. The subject can be divided according to the degree of the injury. 3. It may be divided relatively to the parts involved. By my first assertion, I would imply that in most cases there is no fracture of the bone itself; it might be more properly classed as a dislocation. The nasal bones become separated at their internal borders from the nasal processes of the superior maxillaries; this, although accompanied by more or less violence, is not in itself a true fracture, and this solution of bony continuity is by far the most common variety of broken nose.

The injury may not alone involve the two small nasal bones (for it is impossible to move one without the other), but it may be more severe, and result in fracture of the nasal process of the superior maxillary or the zygomatic arch of the malar (as from the kick of a horse). In all these cases the bony sæptum must be more or less disturbed, depending, of course, on the degree of the violence—sometimes not sufficiently to occlude one or the other of the nasal passages, and sometimes almost obliterating one or even both. It is probable that a certain amount of nose-breaking of children is done during parturition, and some other dislocations and deformities of the sæptum are produced during nursing or sleep, by the nose of the infant being pushed into the breast or pillow. After the stage of infancy is passed, the most prolific cause of "broken nose" is falling, running into objects, being struck on the nose with balls, bats, snowballs, etc. The nasal bones are in childhood easily dislocated, and very quickly unite in a vicious position.

The stage of manhood has its own class of fractures. The glove of the sparrer, even if padded, produces many. If the violence is from below (as in the "upper cut"), the injury is generally to the sæptum, and there will be swelling, sometimes abscess and detachment of the cartilaginous sæptum from the bony and from the nasal spine of the superior maxillary. If the blow is from the side, both nasal bones will be dislocated, although their internal borders will remain in apposition with the maxillary. (See illustration A). If, on the other hand, the blow is from directly in front, the nose will be flattened, the internal borders of the nasal bones generally being driven outward, so that a sharp ridge may be felt on either side of the nose (see Illustration D). In the case of women, the injury is generally inflicted by a bottle, boot-heel, etc., and the lesions are similar to those mentioned above.



Treatment.—The most important treatment is reduction of the dislocation. Unless ether is used, the application of cocaine should be prolonged and frequent. If the injury is recent, reduction is not difficult; careful manipulation with the fingers, assisted sometimes by a thin, flat instrument in the naris, will raise the bones into place. In many cases, if the patient can be seen frequently and is ordinarily quiet, apparatus can be dispensed with, particularly if the sæptum is moderately straight. If, however, the sæptum bulges on one side, or the nasal bones show a tendency to slip inward, then an internal splint, either hard or soft, should be introduced on that side. An external splint, well padded, over the bony nose will be found useful when the external borders of the nasal bones show a tendency to separate, or, indeed, to protect the reduced nose from a second dislocation. An external splint of plaster of Paris, although heavy, is excellent on account of its perfect fit. If you do not see the patient immediately after the injury, and if taxis will not reduce the deformity, advantage may be taken of the elastic property of rubber to produce a gradual reduction. (See illustration C.)

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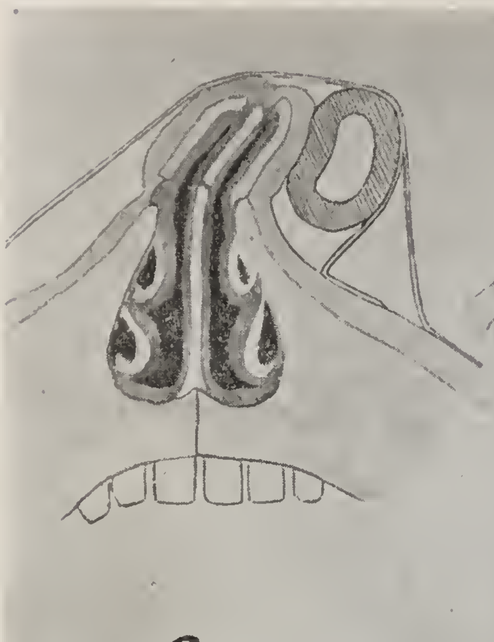
* Read before the American Laryngological Association at its twenty-second annual congress.



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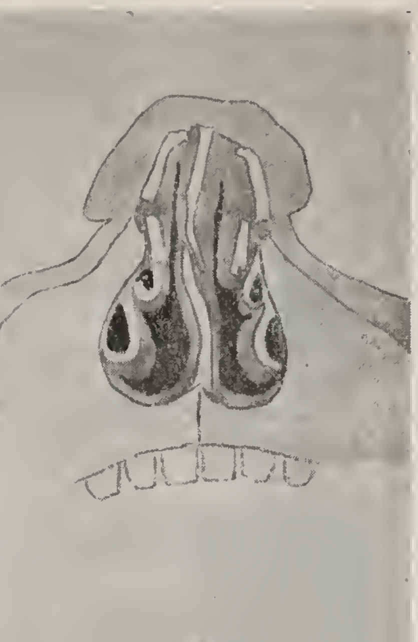


D

Case I (office).—John L., aged ten years, ran into something while coasting. The family doctor said his nose would be all right, so I did not see him until ten days after the injury. The internal border of the left nasal was overriding the maxillary—everything was set and fixed. I strapped the nose with a section of thick rubber tubing. (Illustration C.) In three or four days the dislocation was reduced; then I put on a tin external splint. The result was satisfactory, both as to looks and as to usefulness of the nose.

Case II.—I saw Mrs. B. within an hour of the time she fell on the ice. There was some crepitus. I manipulated the nose into a good position, and then put on a tin splint. I had great help from the patient, who used to mould and massage the nose herself. The result was excellent.

Case III.—Thomas M., aged twenty-one, single, a postal clerk, came to the Throat Department of the Boston City Hospital on February 28, 1900, with the history of having been struck in the nose ten days before during a friendly boxing match. The blow was a straight one, delivered from the shoulder, the impact being directly on the tip of the nose. The usual swelling, dislocation, and soreness followed. Digital manipulation was not sufficient to keep the displaced parts reduced. A hard-rubber internal splint had to be used in the left naris (the concave side) and a tin splint externally. At the end of a week, the hard-rubber splint was removed and recovery was good.

Case IV.—Kenneth C., aged eight, a school-boy, came to the Throat Department of the Boston City Hospital on March 2, 1900, with a history of having been tripped up by a companion, and having fallen on the edge of the curbstone four weeks before. There was some swelling, and there was a great deal of flattening of the upper portion of the nose; there were also discoloration and pain. I found that both nasal bones had been spread out laterally, so that the internal borders overrode the superior maxillaries. They were also separated at the top. As a period of four weeks had elapsed since the injury, there seemed very little chance of breaking up the vicious adhesions. An effort, however, was made with elastic tubing, inside and outside, but it was not successful.

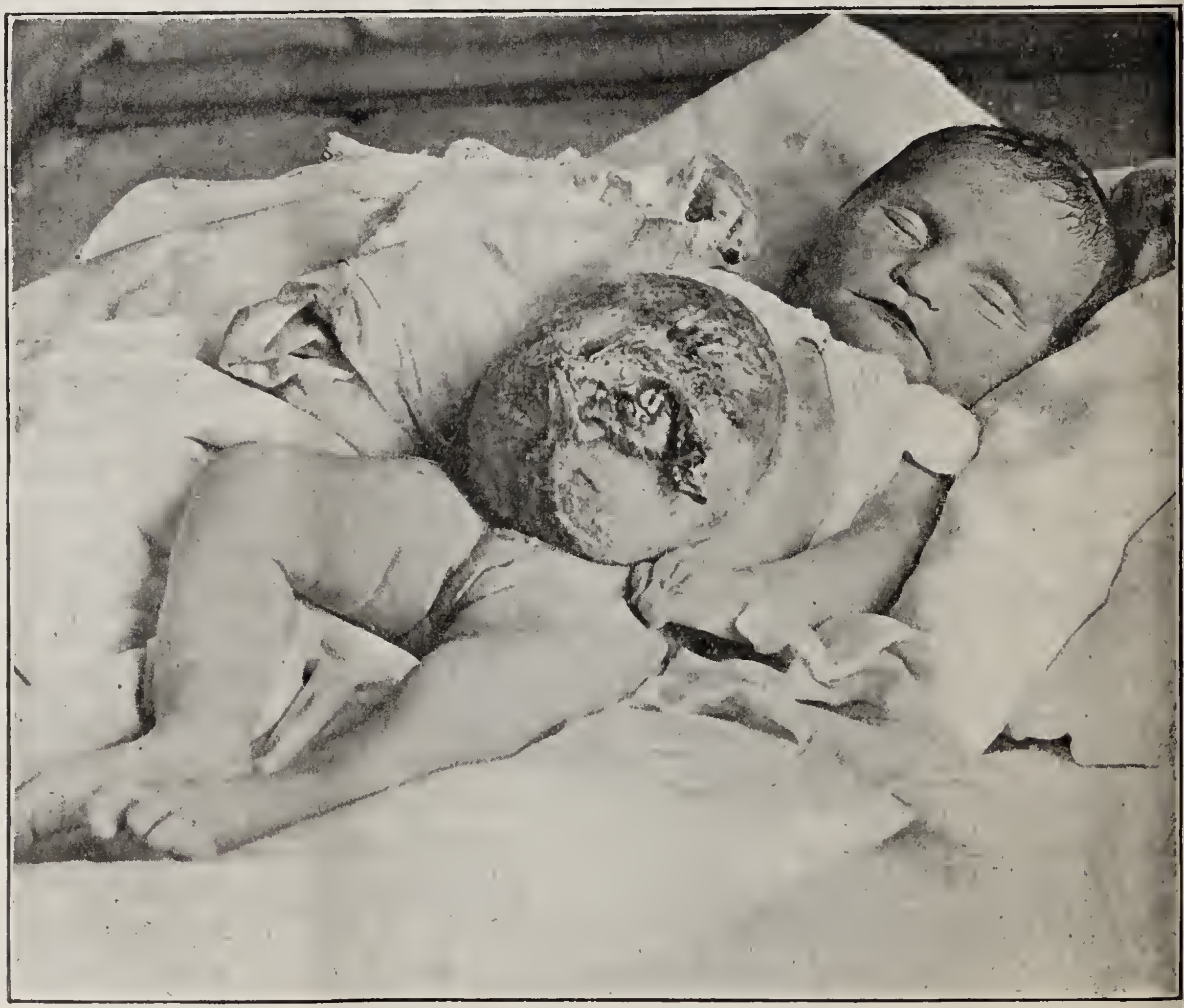
Case V.—Joseph H. M., aged forty-two, a teamster, came to the Throat Department of the Boston City Hospital on February 28, 1900, with a history of having fallen from his team a week previously, when he struck on his forehead and nose. There was very little external swelling or deformity, but the nasal bones were separated, and there was a good deal of mobility between them and the bony and also the cartilaginous sæptum. Internal splints of soft-rubber tubing were introduced flat, and afterward an external splint of padded tin was used. The result was good.

A CASE OF TOTAL EVENTRATION.

By CHARLES G. SCHMIDT, M. D.,

ST. JACOB, ILL.

On the night of August 15, 1900, I was called to see an unmarried girl, seventeen years old, who was suffering with diarrhœa and cramps, as the mother expressed it. After making an examination I left medicine and informed the mother that the diarrhœa would stop, but that the cramps would very probably continue, and that if they got too severe she should send for me again. At 3 a. m. I was sent for again, and by this time the cramps had developed into strong and regular labor pains, and, on examination, I found the occiput almost at the vulva, and



thought that everything would be over with a few more good pains. But for three long hours, during which time I gave uterine stimulants, etc., there was not the least advance made by the head, so I applied the forceps and, with the assistance of a strong pain, extracted a ten-pound female child, with total splanchnectopia of the abdomen, as shown in the figure. The viscera were covered with only the peritonæum as a protection, through which they could plainly be seen. The child was seized with peritonitis and died on the fourth day.

DISTURBANCES OF GASTRIC MOTILITY AND THEIR SIGNIFICANCE.

By ANDREW MACFARLANE, A. B., M. D.,

ADJUNCT PROFESSOR OF PHYSICAL DIAGNOSIS, ALBANY MEDICAL COLLEGE.

(*Concluded from page 676.*)

Eleven cases of gastric disease are briefly reported in order to emphasize the importance of motor disturbances; three are cases of carcinoma, one involving the pylorus, two affecting the lesser curvature; three are cases of pyloric stenosis after ulcer; four are cases of gastro-neuroses; and one is a case of perigastritis with pyloric stenosis due to carcinoma. If reliance had been placed upon the chemical examination alone, it would have been impossible to make a diagnosis, because the same variations in the secretion of hydrochloric acid were present equally in the carcinomata and in the neuroses. When the motility is considered, it is seen that all the organic lesions were markedly affected, while the neuroses showed no disturbance.

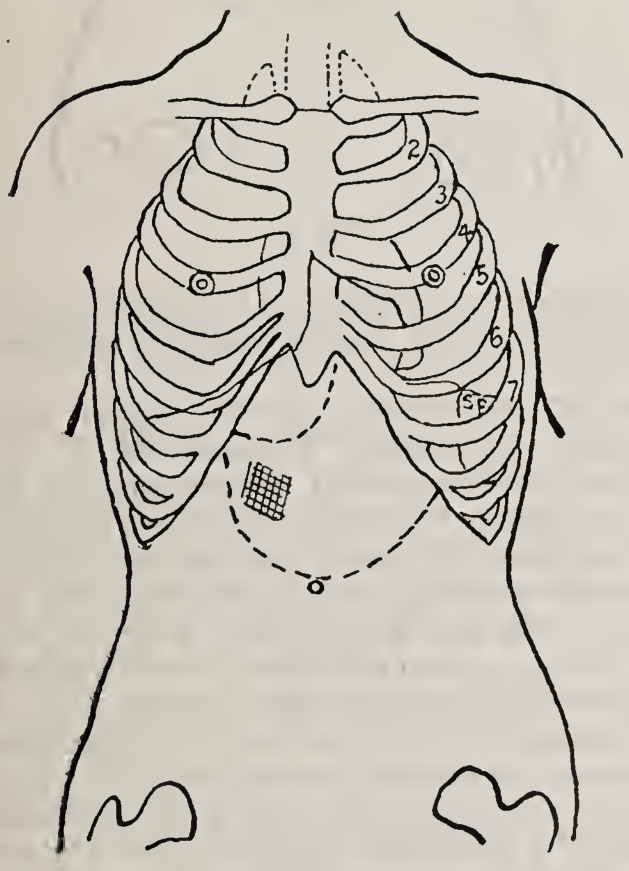


FIG. 2.

CASE I.—*Carcinoma of the Pylorus.*—B. B., a widower sixty-five years old, a native of Germany, a butcher, entered the Albany Hospital on October 22, 1899. He had always enjoyed good health, with the exception of an attack of pleurisy two years before, until the present illness began, in April. At that time he suffered from severe pains in the left side, profuse perspiration, and constipation. As he did not improve, he took a trip to Germany, where the symptoms increased in severity. He had in addition great gastric distress and could not retain food, although at no time did he vomit blood. At the time of his entrance into the hospital he had lost forty pounds in weight. His parents died from causes unknown to the patient, two brothers and two sisters are living and well, and one brother died from an obscure disease. No history of tuberculosis or cancer was obtained. The patient drinks beer moderately, but smokes a pipe to excess.

Physical Examination.—Pulmonary note everywhere superresonant; expiration prolonged, but not raised in pitch, area of cardiac dullness diminished, and pulmonic second sound moderately accentuated; liver displaced downward. The abdominal examination was otherwise negative and no tumor was detected in the region of the stomach. Both ankles were slightly œdematous; arteries not at all atheromatous; pulse 72, strong and regular. Examination of the urine and sputum was negative and the temperature was normal.

Although the patient complained at times of much gastric distress and some nausea, he vomited once only in the first four weeks after his entrance. On November 4th an examination was made of the stomach contents after a test breakfast and seeds swallowed the night before. The contents contained the seeds, lactic acid in large amount, many Boas-Oppler bacilli, and yeast cells. No free hydrochloric acid was present, the hydrochloric acid deficiency was marked, and sarcinæ were absent. The highly probable diagnosis of carcinoma of the stomach was made at this time, based upon this examination and the general signs of malignancy, progressive emaciation, and weakness. After this time, the course of the disease, in spite of symptomatic and dietetic treatment, was markedly progressive. He vomited very frequently a dark-brown liquid containing particles of food, and lost flesh and strength very rapidly. On his entrance his weight was 167 pounds; December 11th, 158½ pounds; December 22d, 152 pounds; December 30th, 148 pounds.

Although frequent examinations were made to determine the presence of a tumor, it was not until January 4, 1900, that an ill-defined mass could be felt midway between the umbilicus and the ensiform process, a little to the right of the middle line. Repeated examinations of the stomach contents gave results similar to those obtained at the first examination. He rapidly grew weaker, and died January 9, 1900.

Autopsy by Dr. Blumer, January 10, 1900.—Stomach contains partly digested food. The organ is much dilated. Mucous membrane atrophic and covered with sticky mucus.

Surrounding the pylorus, and infiltrating the tissue in its neighborhood, is a rather flat ulcerated new growth, covering an almost elliptical area 9 by 6 centimetres in diameter. This growth has firm elevated edges, and an ulcerated base covered with a grayish-brown necrotic material. It has partly constricted the pyloric opening, but has not completely closed it. Over the peritoneal surface of the stomach there is some puckering, and the fat in the immediate neighborhood is adherent to the peritonæum. There are no signs of new growth in this fat, nor do the glands in the neighborhood show definite metastases.

The microscopical examination of the stomach showed the presence of a new growth infiltrating all the coats of the organ. This new growth was of an alveolar nature and consisted of more or less gland-like spaces lined with columnar epithelial cells, often two and three rows deep. These alveoli varied in size and shape. The walls were made up, in the mucous and submucous layers, of connective tissue, and in the muscular layer, of the muscular tissue. The walls of the alveoli showed, in places, marked infiltration with small round cells and, in other places, with multinuclear leucocytes. The peritoneal covering of the organ over the growth was much thickened.

Anatomical Diagnosis.—Ulcerating carcinoma of the pyloric end of stomach, involving the pylorus. Emphysema of the lungs. Hypertrophy of the right side of the heart. Cloudy swelling of the liver with slight cirrhosis (?). Acute swelling of the spleen. Cloudy swelling of the kidneys. Slight atheroma of the aorta—very slight of the coronaries.

Case II.—*Carcinoma of the Lesser Curvature; Moderate Atonic Dilatation and Gastroptosis; No Stenosis; Exploratory Incision.*—J. L. P., a man, aged forty-two, was referred to me by Dr. Morrow on March 4, 1899. He had five children, all perfectly well. His family history was good, except that a sister had had stomach trouble for years. His previous health had always been good. For the last two or three years, the patient believes he may have had an inordinate appetite. In November, 1899, he began to be bloated and belched a great deal of gas; the bowels felt contracted and were very constipated. Between 12 and 2 A. M. he has had so much distress, fullness, pressure, and weight that he has taken an emetic about once a week in order to remove the contents of the stomach. In January his stomach was washed out a number of times, especially when he had a feeling of accumulation of gas and a sensation of weight and pressure. About March 1st he began to have a loathing for food. He has never vomited involuntarily. He has a dull, heavy pain, especially at night, in the region of the stomach. He has lost thirty pounds in weight.. Physical examination of the chest is negative. The liver and spleen are not enlarged; examination of the urine is negative; gastric splashing is obtained just below the umbilicus; a tumor is palpable between the umbilicus and the sternum, transverse in direction, movable on deep respiration, and capable of being held back after deep inspiration, not especially sensitive on pressure. After a test breakfast, abundant contents were obtained, containing little mucus and no blood. Total acidity, 48; free hydrochloric acid, 32. No lactic acid, sarcinæ, yeast, or seeds were present. The washing out showed remnants of food eaten the day before. On dilating the stomach with air, the position of the tumor changed and it was not so well marked. The lower curvature was determined to be one inch below the umbilicus and lesser curvature at the line of the tumor. On washing out and proper diet, the retention was much lessened, also the gastric distress.

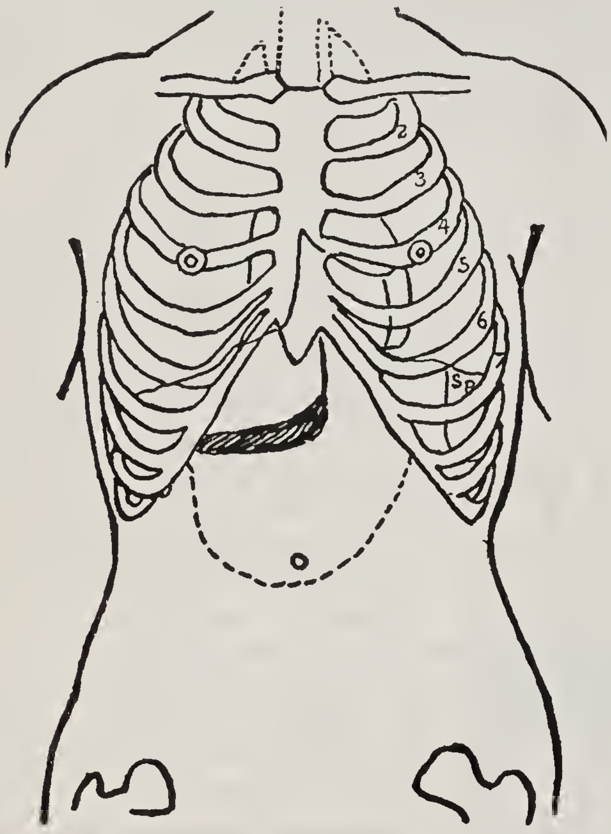


Fig. 3.

Diagnosis.—Carcinoma of the lesser curvature, slight dilatation due to atony, no stenosis at the pylorus. An operation was not advised, as the condition would necessitate total removal of the stomach, and a tumor so palpable probably had metastases in other organs and glands.

The patient and his family insisted upon an exploratory incision. This was done, and the condition found was as expected, also adhesion of the stomach to the liver. The patient died two months after the exploratory incision.

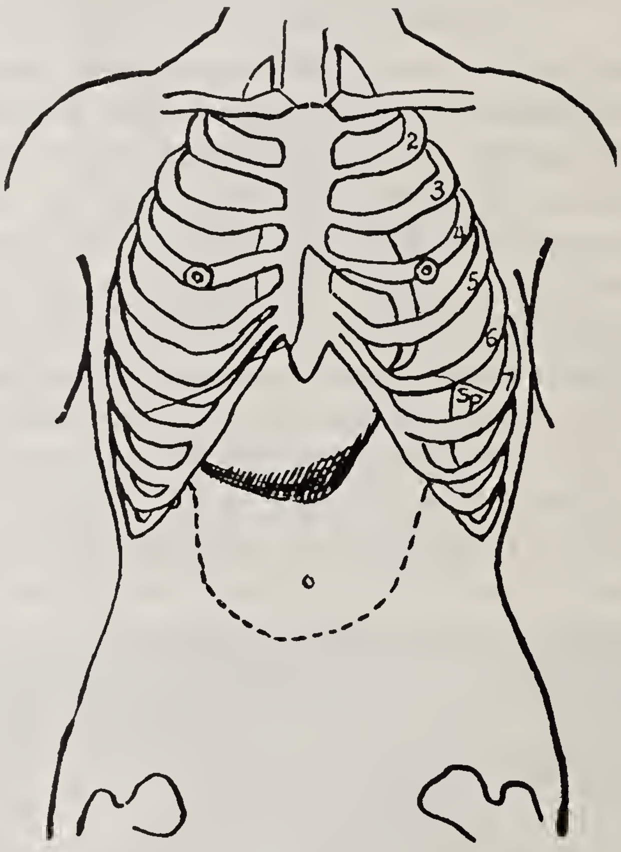


Fig. 4.

Case III.—*Carcinoma of the Lesser Curvature. Gastroptosis. Exploratory Incision.*—M. E. V. D., a widow, forty-seven years old, was referred by Dr. Gorham. Her mother was living; her father committed suicide at the age of fifty-two; her husband died of pneumonia sixteen years ago; she has four children, all living and well. She has always been perfectly well until about a year ago, when she began to suffer pain and distress after eating; she has vomited only twice, and on neither occasion blood or coffee-ground material. She has no nausea, no disgust for food, but suffers from much gas, which she belches up with great difficulty. She complains of a girdle-like pain just above the umbilicus.

Physical Examination.—Patient much emaciated and very anæmic. Chest examination negative, liver and spleen not enlarged. In the middle line midway between the ensiform cartilage and the umbilicus, a round tumor of about the size of a fifty-cent piece, and freely movable, is palpable. This tumor descends with inspiration and can be held back on expiration. The greater curvature can be made out below the umbilicus and splashing is easily obtained. On dilating the stomach with gas, the position of the tumor was seen to change, and both the greater and lesser curvatures were displaced downward. Examination with the stomach-tube was not permitted.

Diagnosis.—Carcinoma of the lesser curvature, gastroptosis, no marked retention.

Subsequent exploratory incision showed a carcinoma of the lesser curvature extending from the cardiac orifice to the pylorus. There was no evident stenosis at the pylorus, but the glands were markedly enlarged. The incision was closed, and the patient died three days after the operation from profuse hæmatemesis. No postmortem examination was permitted.

Case IV.—*Gastro-neurosis; Gastroptosis; Menopause.*—Mrs. F., forty-six years old, was referred by Dr. Hennessy. She has had three children, who are living and well, and seven miscarriages. Her family history is good. She has never been sick until seven years ago, when she began to lose flesh and to vomit everything she ate. She lost in weight from 186 to 103 pounds. She was sick for several years, but became well under daily washing of the stomach. She has remained well until two months ago, when, after the use of a powerful cathartic, she began to vomit; she also vomited twelve days ago after eating hot biscuits. She complains of marked belching of gas. There is no nausea; the bowels are constipated. Her present weight is 143 pounds, and she has lost 9 pounds in the last three weeks.

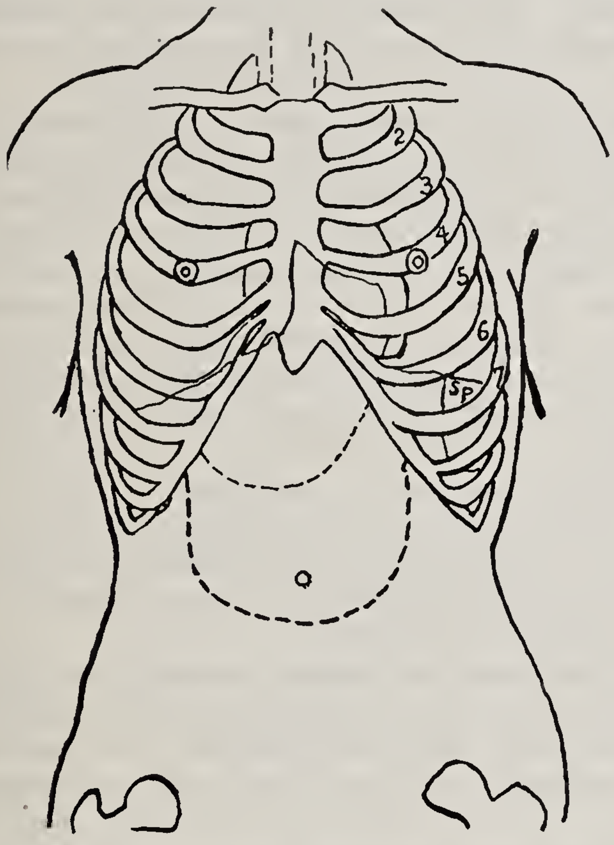


Fig. 5.

Physical Examination negative, except that splashing can be obtained below the umbilicus, no sensitiveness anywhere, no resistance.

The test breakfast showed no retention. Total acidity, 12; no free hydrochloric acid or lactic acid, no sarcinæ or yeast, no mucus, no dilatation of the stomach; gastroptosis determined.

Treatment.—Dilute hydrochloric acid and diet. The patient gained in weight and has had no gastric distress whatever since that time (ten months ago).

Case V.—*Pyloric Stenosis after Ulcer; Marked Dilatation; Operation; Recovery.*—D. F., thirty-five years old, a laborer, born in Ireland, was referred by Dr. Macdonald. Family history negative. Has had the diseases of childhood, but otherwise has been healthy until his present illness began. Has been a moderate smoker and drinks occasionally. About ten years ago he began to regurgitate food a short time after eating; he had considerable nausea and gastric distress, and, at intervals, would vomit large quantities of food of a sour, rancid taste. The condition gradually grew worse until attacks of vomiting occurred almost every day, and occasionally two or three times a day. His bowels are very much constipated and he has lost about 20 pounds in weight in the last six months.

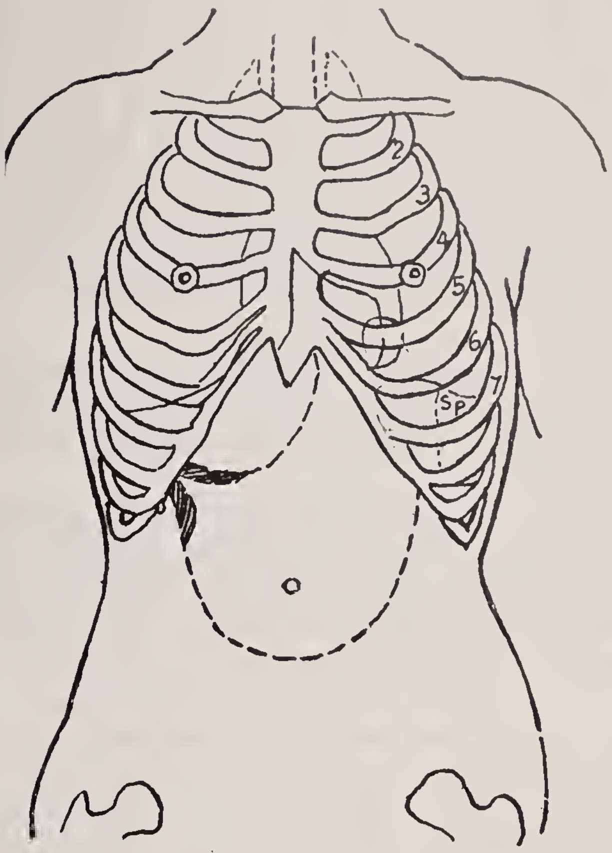


Fig. 6.

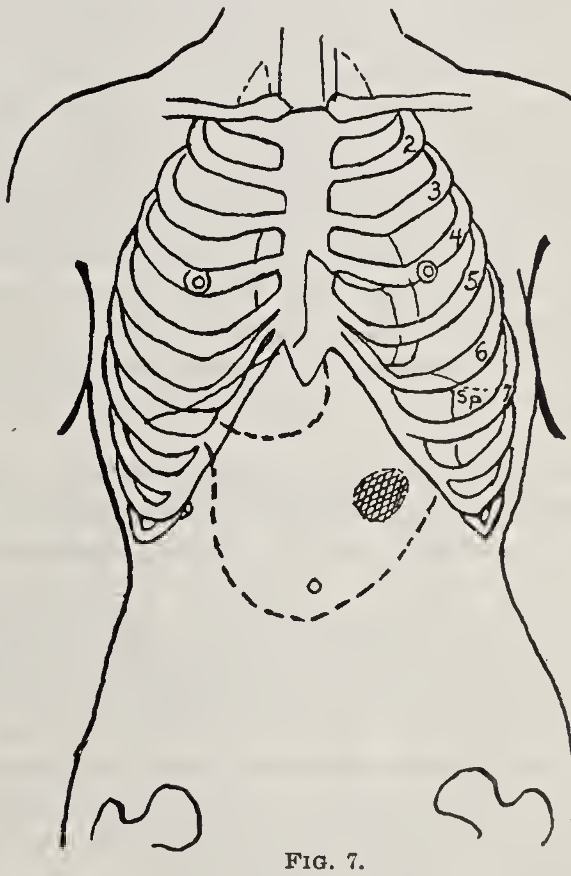


Fig. 7.

Physical Examination shows the patient not well nourished; the conjunctivæ are pale and the lips slightly cyanotic. The supraclavicular and infraclavicular fossæ are slightly depressed, more on the right side than on the left, with slightly prolonged expiration over the right apex; otherwise the chest examination is negative. When the stomach is dilated with carbonic acid, the greater curvature appears to reach two inches below the umbilicus and evinces marked peristaltic movements. Splashing is easily obtained. After a test breakfast, four ounces of a dark-brown fluid were removed, which contained particles of food, grape-seeds swallowed the night before, and a little mucus. The total acidity was 40; the total free hydrochloric acid, 24; lactic acid was absent, many sarcinæ and yeast cells were present. The following morning, before he took any food, about four ounces of a dark-brownish fluid were drawn off by the stomach-tube.

Diagnosis.—Marked dilatation with retention due to a benign pyloric stenosis. The quantity of urine was much decreased, although it was difficult to have him pass all his urine into a vessel.

Operation.—Gastrojejunostomy and duodenojejunostomy by Dr. Macdonald. The patient was discharged January 22, 1900. His condition since the operation has been excellent and now (seven months after the operation) he works every day.

CASE VI.—*Pyloric Stenosis after Ulcer; Marked Dilatation; Improvement after Treatment.*—J. G., an American, aged thirty-seven, married, a plumber, was referred by Dr. Hun. Ten years ago he had an attack of vomiting after heavy lifting. This attack lasted for twenty-four hours and was followed by weakness which persisted for some time. Two years later he had a similar attack following the same cause. Five years ago he had a hæmorrhage from the stomach, vomiting about two quarts of a mixture of blood and stomach contents, and for two or three days afterward he passed blood with his stools. Two years ago he had a second hæmorrhage, nine months ago a third hæmorrhage, and in July, 1899, a fourth hæmorrhage. The present attack began four weeks ago, in November, 1899, with the vomiting of about four quarts of fluid without blood. Every day or two since then he has vomited, and he now suffers from distress in the stomach and gradually increasing weakness. The attacks have all been characterized by the vomiting of large quantities of the stomach contents, distress, but no acute pain, and gradually increasing weakness. Between the attacks he has felt well unless he ate food which disagreed with him, when he had distress and much gas in both stomach and intestines. His bowels are usually constipated; fruit and vegetables distress him.

His family history is excellent, and his previous health, with the exception of these attacks, has been good.

Physical examination of the chest, negative; liver and spleen, not enlarged. Stomach, markedly dilated, as splashing was easily obtained two inches below the umbilicus. No special point of tenderness anteriorly or posteriorly was discovered. Examination of the urine, negative. No attempt made to use the stomach-tube. Bismuth, given in large quantities every morning before food, enemata of normal saline solution twice daily, albuminous diet, and restriction of liquids, induced a very rapid improvement, which has continued.

CASE VII.—*Pyloric Stenosis after Ulcer; Marked Dilatation; Pulmonary Tuberculosis.*—J. H., forty years old, married, a railway ticket agent, was referred by Dr. George Cox. The patient's father died at forty-eight years of age, from consumption, his mother during childbirth. A sister died when twenty-one years old, of some obscure spinal affection. The patient has had a weak stomach all his life, and has been subject to attacks of sick headache and vomiting. Three years ago he had two severe hæmorrhages not associated with cough. Last December he began to have distress and pain some time after eating, with the feeling of a load low down in the abdomen, and at times belching of gas. There were eructations of a sour taste.

Physical Examination.—Markedly emaciated, great loss of strength, fever at night with cough. Right apex shows diminished resonance and bronchial breathing. A few tubercle bacilli were found later in the sputum. Stomach much dilated, as splashing was easily obtained below the umbilicus.

A test breakfast was given, but, on account of the highly nervous condition of the patient, only about a drachm of stomach contents was obtained, which showed the presence of free hydrochloric acid. Determination of retention was not satisfactory.

Diagnosis.—Dilatation due to pyloric stenosis following an ulcer. The patient did not respond to treatment, and gradually failed and died from pulmonary tuberculosis three months after the first examination.

CASE VIII.—*Gastro-neurosis; Hyperacidity.*—W. H., fifty-five years old, a driver, of Westfield, Mass., was referred by Dr. Macdonald. His present illness began two months ago, with pain in the epigastric region, occurring usually about 11 A. M. and 3 P. M., and lasting for an hour or two. Lying down at this time seemed to give relief. He has nausea and slight vomiting. These attacks are growing worse, but he rarely has more than two a day. Sometimes the pains are relieved by eating. He thinks he has lost 25 pounds in two months. He believes he may have had this same trouble with his stomach for thirty-five years, though not nearly so intense, for at fifteen years of age he was persuaded to drink some pure alcohol, which burned his stomach severely, and to this he attributes his disorder.

Examination of the stomach contents and dilatation of the stomach by air showed no retention or dilatation. The test breakfast was well digested. Total acidity, 73; free hydrochloric acid, 54. No lactic acid, no sarcinæ or yeast. Alkaline treatment and suitable diet relieved his condition to such an extent that he did not have the slightest distress during the remainder of his stay in the hospital, and after a week went home. He has remained well since leaving the hospital (seven months).

CASE IX.—*Gastro-neurosis; Gastroptosis.*—Mrs. W., fifty-three years old, married, was referred by Dr. Eastman. She has two children, living and well; one died in infancy. Her father died with dropsy, and her mother, at fifty-eight, of consumption. Several members of her mother's family died of consumption.

The patient has always had a weak stomach. Three years ago she had marked distress and fullness after eating, and vomited frequently. Her condition improved under treatment. About a year ago her gastric distress recurred, and for the last three or four weeks she has vomited almost every day. No nausea, little belching, bowels constipated, sleeps poorly. Has lost about 30 pounds in weight in the last six months. Has distress after eating, whether solids or liquids, and especially after eating potatoes.

Physical Examination.—Patient much emaciated and anæmic. Examination of chest, liver, spleen, and urine, negative. On inspection, the stomach could be seen to move with full respiration, the greater curvature below the umbilicus, the lesser, above. Splashing easily obtained. No special sensitiveness over the abdomen.

A test breakfast with seeds taken the night before. Gastric contents showed no seeds, but a little mucus. Total acidity, 24; free hydrochloric acid, 12. No lactic acid. No sarcinæ or yeast cells. The patient improved rapidly, increasing in weight about a pound a day, and had no gastric distress. Further improvement, though not so marked, has followed.

Case X.—*Gastro-neurosis; Hyperacidity.*—E. H., fifty-three years old, a clergyman, was referred by Dr. Hun. About a year ago the patient began to have a burning pain in the region of the stomach, especially after eating, with a feeling of great pressure, as if due to a vise. There was no vomiting or nausea, but belching of gas after eating. Has lost 50 pounds in the last twelve months, and is now somewhat depressed and feels unable to do his pastoral work. Bowels usually constipated. Sleeps well. Family history good, with the exception that a brother died at the age of fifty-three, of some obscure bowel difficulty. His previous health has always been good, except for attacks of malarial disease, which he controls by quinine.

Physical examination negative, also examination of urine. A test breakfast showed no grape-seeds; a roll was thoroughly digested. Total acidity, 70; free hydrochloric acid, 48. No sarcinæ, no yeast cells, no lactic acid. Alkalies, atropine, and an albuminoid diet were prescribed.

Nine days later, he reported a gain of 2 pounds, and said that he was feeling like a new man. Three months later he had gained 30 pounds, and has since remained very well.

Case XI.—*Perigastritis; Pyloric Stenosis; Retention; Moderate Dilatation; Operation; Recovery.*—B. G., thirty-six years old, married, a worker in a brewery. Family history negative. Previous health good, with the exception of pneumonia four years ago. Has always drank considerable beer. For the past five years he has suffered with attacks of very severe pain in the epigastric region. These pains are gradually becoming more severe, and occur usually in the morning, before breakfast, and before dinner.

Physical Examination negative, also examination of urine.

November 2, 1899.—Examination of the stomach contents by Dr. A. W. Elting, after a test breakfast. Total acidity, 29; free hydrochloric acid absent. Hydrochloric acid deficiency, 60. Pepsin ferments present. Apparently a small amount of food retained from the supper of the previous evening.

November 4th.—Lower margin of the stomach, without inflation, is on a level with the umbilicus. After inflation with carbon dioxide, it is in the mammary line 1 centimetre below the umbilicus.

November 14th.—Examination of the stomach contents by the writer showed retention of grape-seeds swallowed twelve hours previously and the presence of considerable mucus. Total acidity, 38; free hydrochloric acid, 14; lactic acid, yeast, sarcinæ. On dilating the stomach by means of the double bulb, the patient had intense pain above and to the left of the umbilicus. He was placed on the use of dilute hydrochloric acid and strychnine, with a carefully regulated diet, and became much more comfortable, although he had occasional attacks of severe pain. He was discharged from the hospital, and when at home became very much worse, so that he had to take morphine for relief, and was so despondent about his condition that he willingly returned to the hospital. Upon dilating the stomach, he again had most intense pains in the same region. He then entered the hospital for exploratory incision, with the diagnosis of retention due to a stenosis, moderate dilatation of the stomach, and perigastric adhesion. An operation done on January 29, 1900, by Dr. Macdonald confirmed the diagnosis and discovered the fact also that the stenosis was malignant. Adhesions of the size of the palm of the hand were broken up and gastroduodenostomy was performed for the pyloric stenosis. After the operation his recovery was rapid and he did not suffer the slightest discomfort. He gained 15 pounds in weight and felt perfectly well. He continued in apparent good health until May 14th, when, after working for two weeks, he complained of intense pains in the epigastric region. On examination a stony, hard, nodular tumor, filling this region, was found. He failed rapidly from this time, and died on July 8th.

The autopsy, on the following day, revealed a nodular tumor involving the stomach, extending across the entire abdomen, and projecting 10 centimetres below the ensiform cartilage. There was metastatic involvement of the visceral and parietal peritonæum.

THE SUTURE AND THE VALUE OF DRY STERILIZED CATGUT.*

By J. H. CARSTENS, M. D.,

DETROIT.

For the first half of the nineteenth century, virtually, only silk was used. During the last quarter of that century, with the advent of abdominal surgery, requiring sutures to be buried and be beyond reach after the external wound had healed, the trouble began. Silk was a foreign body and would often cause fistulæ, and the profession looked around for other material, and even used various metals, but they were generally found wanting. Then they tried animal sutures of various kinds. The greatest trouble with these has been to make them absolutely sterile. Every kind of animal tissue, from the tail of the kangaroo to the fascia lata of the deer, has been used and again dropped.

I have tried the different kinds of catgut sutures cumoled, formaldehyded, and chromicized, and have always found something wrong. The greatest objection that I have had to all these ligatures has been that they *lasted too long*.

It really seems too absurd to me when I hear men talking about using twenty-, thirty-, or forty-day catgut, as though it made any difference whether it lasted ten days, twenty days, or two months. If the parts are not *healed* in a few days or a week, they will not heal in a month, if you simply hold them in apposition with the suture. When I have taken out pieces of sutures weeks and months after they had been put in place, I have become perfectly disgusted with various sutures.

Still, catgut is just the ideal suture that we want in abdominal surgery. Again and again I have approached the subject and experimented, but have often become discouraged. Reverdin, Döderlein, and others recommended dry sterilized catgut, but no good apparatus could be had until I heard some years ago about the dry sterilized catgut, as prepared by Boerckmann. The only thing that I did not like was to use oil paper or paraffin paper for the purpose of oiling the suture. That is just what I did not want in a suture. What I wanted was a *plain, pure animal fibre,* as small as possible, or as fine and as light as possible, to hold the parts in apposition for a few days or to control a blood-vessel.

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*An abstract of a paper read before the American Association of Obstetricians and Gynæcologists, held in Louisville, on September 18, 19 and 20, 1900.

After I had sterilized some, I was astonished to find how strong the catgut was after being subject to an intense heat. I first used some that was pretty heavy, then I began to use it lighter and lighter, and finally got down to No. 3 of the finest German catgut (ten strands of ten feet each, in a box, is the way I got it). This I used for tying the pedicle and blood-vessels, and it is more than strong enough for that purpose. For fine work, that is, intestinal surgery, or to sew the peritonæum together, I use only No. 1 or No. 2. For instance, in an operation for appendicitis, that is amply sufficient in strength, as agglutination of the peritonæum takes place so rapidly.

I prepare these ligatures myself (although they are now in the market) in the following manner: The catgut is put into ether for a few days or a week, till the fat is all removed, and then cut into strips 18 or 20 inches long. Three of these are wrapped in fine tissue paper. This is then placed in a small enevelope, the latter closed, and then placed in the Boerckmann sterilizer and subjected to dry heat for three hours. The thermometer is kept in the apparatus, so that one can see that the heat is at least 300° F. At the expiration of that time the heat is shut off and the ligatures remain in the apparatus without disturbance for from twelve to eighteen hours, which gives any spores that may be present an opportunity to develop. Then the heat is again used, and the sutures are again subjected to a heat of 300° F.

No contamination can take place while they are in the envelope unless the envelope becomes moist. I have had a package in my satchel which I carried all over Europe, and whenever anybody wanted to try it, I gave him a couple of envelopes. The envelopes were loose and came in contact with all kinds of things, but were kept dry, and when I returned I made bacteriological tests and found that the catgut was still absolutely sterile. I have repeatedly tested this catgut and have always found it absolutely sterile.

The points I wish to make about the dry sterilized catgut are the following:

1. All buried sutures ought to be absorbable.
2. All absorbable sutures must be absolutely sterile.
3. Chemicalized sutures are no more sterile than plain sutures.
4. A suture that is chemicalized is harder and remains longer in the tissues.
5. This latter is no advantage, but a disadvantage. If in a special case it is desirable that a suture should remain longer, dry sterilized kangaroo tendon can be used.

THE MANAGEMENT OF NORMAL LABOR, INCLUDING THE USE OF THE FORCEPS.*

By AUSTIN FLINT, JR., M. D.,

NEW YORK.

NORMAL labor, understood in a somewhat wider sense than the strictly literal, includes the vast majority of obstetrical cases. Labor may be normal in the sense that all conditions are present that conduce to the greatest safety of both mother and child, and still may present wide variations as regards its duration, the character of the labor-pains, and various other conditions. Its proper management is perhaps more far-reaching in its effects for good or for harm than mismanagement in the comparatively few abnormal cases.

Of late years, advances in obstetrical practice have been made chiefly along the lines of improved methods of carrying out antiseptic and aseptic details and in obstetric surgery. Statistics as regards mortality have shown a corresponding improvement, and it is now the aim of obstetricians to show a corresponding improvement in morbidity. In hospital practice, the mortality has been reduced to about one-half of one per cent. Morbidity statistics vary between four or five per cent. and as much as twenty-five per cent.

In a general way, the fewer the examinations and the less interference of any kind that is allowed, the smaller becomes the percentage of temperature cases. If we remember that a large proportion of these cases are normal at the start, as regards presentation and position, and that the large percentage of morbidity is due to some fault in the management, the most important principle in the management would be non-interference. It is not enough to conduct a case with the result that "mother and child lived," but the result should be that the mother recovered perfect health, and the baby was strong and healthy also. To make this the rule in practice requires a close and serious study and the exhibition of a good deal of skill even in so-called normal cases. The general indication in treatment is to do everything that will limit the suffering to the smallest degree consistent with the best interests of mother and child.

In a paper which is to cover so wide a field and which must be limited in time, a comprehensive review of the management of normal cases is impossible. It is also difficult to pick out the important details of management and to omit other details all of which have a direct bearing on the ultimate results. Perhaps the most direct is to give a brief review of the technique in the conduct of a case, with reference more particularly to private practice.

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*Read before the New York State Medical Association, October 16, 1900.

While not wishing to go outside the scope of the title of this paper, I believe a careful physical examination at the end of the eighth month of pregnancy is necessary, and that it partially takes the place of a similar examination at the beginning of labor. If such an examination can be made, nearly all danger of infection and subsequent fever is avoided, and very valuable information is obtained. A diagnosis at this time will usually hold good at the time when labor actually begins, and especially in the primipara, for presentation and position rarely change during the last month of pregnancy.

The examination should, of course, include pelvic mensuration. The patient should be instructed to take daily walks during the last month of pregnancy and up to the very beginning of labor. The results of these daily walks are very satisfactory. They favor softening of the lower segment of the uterus and vagina, allow the head to sink through the pelvic brim, and lessen the liability to change in position. The softening also renders dilatation easier and shortens the first stage of labor.

A consideration of the management of actual labor is conveniently divided into the management of the three stages.

The First Stage.—If it has been possible to make an examination at the eighth month, the examination during the first stage is very much simplified; this examination, when the patient's condition will admit, is preceded by a warm bath, the external genitals are cleansed with green soap and water, an enema is given, and a sterilized gauze pad is placed over the vulva. After the usual sterilization of the hands, an external examination is made, and finally an internal examination. This is done to verify the diagnosis previously made and to ascertain the progress since the beginning of labor. It is better to make a long and careful examination at this time than to make a series of short and incomplete examinations. If the case can be diagnosticated as normal, the management consists almost entirely in observation until nearly the end of this stage. The patient is allowed to assume any position that is most comfortable, the upright being preferred as long as possible. The nurse should be instructed to see that the patient's bladder is emptied at hourly intervals. Toward the end of this stage, the patient should be put to bed; and in the majority of cases an anæsthetic may be used. Ether, used in small quantities during each pain, seems gradually to be displacing chloroform for this purpose, and it can be used in exactly the same way.

I often aid manually in the dilatation of the cervix toward the end of the stage if progress appears to be slow. The rule to preserve the bag of waters as long as possible, particularly in primiparæ, deserves mention. As the physician gains experience, the number of necessary examinations becomes less and less. The advantages of infrequent examinations are too well known to require further discussion.

The Second Stage.—No special intervention is required during this stage until the head reaches the pelvic floor. Time does not permit of even a brief outline of the measures designed to preserve the perinæum from rupture. The principle underlying all methods is to secure the dilatation of the vulva before allowing the head to pass; and under normal conditions this takes place by a slow and regular advance of the head. An anæsthetic is of great advantage in many cases, the quantity being determined not only by the degree of suffering, but by the slowness or rapidity with which the child's head advances. Those who are accustomed to a frequent use of anæsthetics will undoubtedly be compelled oftener than others to use the forceps; and, so far as the integrity of the pelvic floor is concerned, undue delay in delivery is almost as dangerous as haste.

In my opinion, the use of the forceps when the head is at the outlet of the pelvis is too infrequent. Its proper use is an art, but an art not more difficult to acquire than the proper delivery of the head and shoulders through the vulva without the use of the forceps. The mistake of the beginner is haste. The principles governing methods of "preservation of the perinæum" apply with equal force in a forceps delivery and in an uncomplicated delivery.

Time, with a slow, gradual advance of the presenting part, will produce the dilatation of the vulvar orifice exactly as it does dilatation of the cervical canal. Under normal conditions, even a small orifice will dilate under the influences of repeated advances and recessions of the presenting part, until the time comes when delivery may be safely accomplished. If this takes place from the influence of the pains alone, any interference other than regulating the rapidity of these advances is unnecessary. If the pains are too feeble to cause the head to advance regularly, they may be stimulated. The withdrawal of the anæsthetic, if one is used, or the substitution of ether for chloroform, is often all that is necessary. The uterine contractions can then be reinforced by voluntary efforts at expulsion. Occasionally a stimulant produces this effect. Ergot, of course, should never be used. As soon, however, as the presenting part ceases to advance and stimulation or withholding the anæsthetic does not cause advance, the low forceps operation is indicated. It is futile to wait any definite time in the hope that the propulsive qualities of the pains will reappear. Artificial extraction by means of the forceps is safer both for the mother and for the child than a waiting policy. The forceps should be used in imitation of normal pains. Traction should be slow, gradually increasing in force until the soft parts in front of the head are put upon the stretch, then the head should be held for about a minute, followed by a slow and gradual relaxation of the traction force until the artificial pain has passed. A few minutes should then be allowed for a return of the circulation in the parts subjected to pressure, when the operation should be repeated.

Under the normal conditions that I am considering, delivery with an intact pelvic floor can be accomplished in a very large proportion of cases. In a general way, the same results can be accomplished by the forceps when the head has *partially* descended. Such operations are called median forceps operations, and are divided into two classes: (1) when the head is still within the cervix; (2) when the head is outside the cervix. In the latter instance, the operation is the same as in the ordinary low forceps operation, except that the blades should be so applied that they aid the incomplete rotation. This requires a little more skill in their application, but it is usually accomplished with ease. In the former instance, with the head still within the cervix, as in high operations, the danger is great, and the procedure becomes a major operation. This should never be undertaken unless there is some special indication; and the case is then outside the scope of this paper.

Immediately after the delivery of the head, the mouth and eyes should be wiped out. The advantage of clearing the fauces of mucus before the first effort at inspiration is very great. The child is prevented from drawing mucus into its lungs; and when the mouth is cleared, as a routine practice, partial asphyxiation is very much less frequent. While apparently only a minor point, this is well worthy of more general adoption.

The Third Stage.—Personal observation of the conduct of labor cases by students has shown that the interval between the second and third stage, or the third stage itself, is the time when infection is most likely to occur. It is rarely that any internal examination is required after the birth of the child.

Before any attempt to deliver the placenta is made, the hands should be resterilized; clean towels are placed under the patient's hips, and the usual preparations for a possible hæmorrhage are made.

During this time, the nurse maintains pressure over the fundus; and after an interval of twenty or thirty minutes, the placenta is expressed. This interval may be made shorter if the uterus is firm and well contracted, or longer if the uterus is flabby. If the cord has been tied in two places, it is usual to cut the ligature or to cut off the placental end of the cord behind the ligature, so that the two or three ounces of blood which the placenta contains can escape. This reduces the bulk of the placenta and makes its expression a little easier.

After the delivery of the placenta, it is my custom to give a hot sterile douche. This stimulates the uterus to contract, cleanses the vagina of all clots, and allows a thorough inspection of the vulva and vagina. Tears that are slight are then easily seen and can be immediately repaired. Nothing conduces to the comfort of a patient more than perfect cleanliness; and even slight tears in the vagina may be starting-points of infection. The records of cases in private practice show that, of patients who had a perfectly normal temperature during the puerperium, nearly all had no tear in the vagina or vulva. Should any laceration occur, an immediate repair should, of course, be made.

In this brief review of the management of normal cases nothing has been said that is absolutely new. I have endeavored merely to emphasize some of the more important points in the management which are likely to be carelessly performed by the general practitioner. The points, briefly reviewed, are:

First.—The importance of making a diagnosis and a complete physical examination about one month before the onset of labor. This not only will give a great deal of information which may be utilized during the labor, but it affords ample time in which premature labor can be induced if there is any abnormity.

Second.—Infrequent examinations during labor: If the delivery of women could be regarded as a surgical operation, requiring as full and complete antiseptic details as other surgical procedures, we could confidently expect non-febrile convalescence. The fact that sterilization of the external genitals, the thighs, and the lower portion of the abdomen is sufficient, deserves mention. An ante-partum douche is not only unnecessary, but is actually harmful, as has been shown by Leopold and others. The use of gloves has not been satisfactory.

Third.—The use of anæsthetics should be more general in private practice. Ether possesses many advantages over chloroform, and should be used, as a rule, when the pains are of moderate intensity. We have not had enough experience with the new method of spinal anæsthesia to justify its use in more than an experimental way; and, if added experience should show freedom from complications, we shall have at our command a method that is nearly ideal.

Fourth.—In the hands of the general practitioner, a low forceps operation should be performed with greater frequency. It is easy of execution, is devoid of danger, saves unnecessary suffering on the part of the patient, and often actually enables us to preserve the perineal floor intact. On the other hand, however, median operations, within the cervical canal, and high operations should be done only for some special indication.

Fifth.—Non-febrile convalescence and freedom from local discomfort in cases in which the parturient canal is intact; it is of the greatest importance in the management of normal cases to acquire skill in so guiding the passage of the head and shoulders over the perinæum that the risk of even a slight laceration may be reduced to a minimum. In addition to the danger of a mild puerperal fever, lacerations have a tendency to interfere with the involution of the vagina and uterus, and they predispose to many conditions requiring treatment by a gynæcologist.

Too many obstetricians are careless in this respect, relying upon the usual good results of an immediate repair.

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Cocaine Snuffing.—The habit of snuffing cocaine, which, according to the *Journal of the American Medical Association,* has become prevalent among the negroes in the Southern States, is, according to the *Indian Medical Gazette* for September, also common among the natives of the Bhagalpur district in India.

EFFECTS ON DIGESTION OF FOOD PREPARED BY THE USE OF AN ALUM BAKING POWDER.

By E. E. SMITH, M. D., Ph. D.,

YONKERS, N. Y.

The healthfulness of food is a matter of such very general interest and importance that the opinion of the physician concerning it should not be thoughtlessly formed. On the one hand he must not jeopardize the public health, and on the other he should not needlessly sacrifice the economic interests that pertain to the supply of food. It is with this in mind that the writer presents the following experimental results obtained in a recent investigation of the healthfulness of food prepared by the use of a so-called alum baking powder, a question that has attracted widespread attention and concerning which much has been said and written.

In a study of the literature of the subject no record is found of exact physiological observations upon the use of such food, opinions regarding its healthfulness being usually based upon what is believed regarding the condition of the alumina into which the alum of the powder is converted in the preparation of the food. According as it is believed to be soluble or insoluble, the food is thought to be harmful or innocuous. The harmfulness alleged is in the production of disturbances of the digestive functions, resulting from the action of soluble aluminum salts, and also diminished digestibility of the food product. In view of the uncertainty of the chemical conditions and of the diversity of opinion resulting in consequence, it has seemed to the writer that direct physiological observations of the use of the food would be of very great value and must be given the final consideration in reaching a conclusion as to its healthfulness. The following experiments were accordingly planned and executed and are the evidence upon which Professor Austin Flint and the writer based their testimony as witnesses for the defendant in the recent trial in the case State of Missouri *vs.* Layton.

The food the use of which was the subject of these observations was bread prepared according to the following receipt:

Baking Powder Bread (Formula No. 1).

Flour.	585 grammes;
Salt.	8 grammes;
Alum baking powder...	17¼ grammes (two teaspoonfuls);
Water.	500 grammes.

Directions: Sift the dry ingredients together three times, stir in the water, and bake in one loaf at 175°-'85° C. for an hour and three-quarters. The baking powder used was of average quality, made in the regular process of manufacture, being substantially a combination of the following: Sodium bicarbonate, one part; desiccated soda alum, one part; starch, three parts.

Bread for use in control experiments was prepared without the use of alum powder in a manner as nearly as possible like the preceding and so as to yield a product in other respects chemically and physiologically identical with it. This was accomplished by the use of the method of Liebig, after the following receipt:

Control Bread (Formula No. 2).

Flour.	585	grammes;
Salt.	8	grammes;
Sodium bicarbonate.	3½	grammes;
Water.	489	grammes;
Hydrochloric acid (15.5 per cent.)........	11	c. ctm.

Directions: Sift the ingredients together three times, stir in the water and acid, and bake in one loaf at 175°-'85° C. for an hour and three-quarters. The amounts of sodium bicarbonate and acid were so regulated as to yield the same amount of gas for raising the bread as was yielded by the powder in formula No. 1.

The first set of experiments was planned to determine the influence of this food on secretion in the stomach. The experiments consisted in the administration of test breakfasts of baking-powder bread and control bread to healthy individuals and the subsequent withdrawal of the stomach contents after one hour, precisely in the manner familiar to the profession from the use of the method for the purpose of determining the secretory power of the stomach in suspected conditions of disease of this organ. The two individuals used as the subjects of these experiments were healthy young men. After eating dinner the night previous to the test, they partook of no food till the test breakfast was administered the following morning. The test meal was the same with each subject and consisted of bread, 60 grammes, and water, 350 c. ctm., the simple Ewald breakfast. The stomach contents were withdrawn in exactly one hour, in the usual way with a tube and without the addition of water. Four days later, a second test breakfast was administered in each case under precisely similar conditions, excepting the bread used. The stomach contents were examined for acid and pepsin, with the following results:*

	Baking Powder Bread.	Control Bread.
Subject I.		
Total acidity, as HCl........	0.251 per cent.	0.233 per cent.
Total hydrochloric acid......	0.215 " "	0.222 " "
Free hydrochloric acid......	0.072 " "	0.086 " "
Combined hydrochloric acid..	0.143 " "	0.136 " "
Pepsin test.	1 hour.	1½ hour.
Subject R.		
Total acidity, as HCl........	0.220 per cent.	0.221 per cent.
Total hydrochloric acid.......	0.215 " "	0.200 " "
Free hydrochloric acid.......	0.070 " "	0.069 " "
Combined hydrochloric acid..	0.145 " "	0.131 " "
Pepsin test..................	1½ hour.	1½ hour.

It is the writer's opinion that these results are negative; that the slight differences are the inevitable variations in physiological experiments observed even when the physical conditions appear to be identical. Such parallel experiments, separated necessarily by time, are doubtless subject to slight variations owing to different physiological states of the subjects which it is impossible to control, but which are without material effect. The results obtained I believe to be well within these limits of physiological variation.

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*The methods used were as follows: Total acidity, titration to a deep color with standard potassium hydroxide, phenolphthaleine indicator; total hydrochloric acid, method of Hayem and Winter; free hydrochloric acid, titration to a pure yellow with standard potassium hydroxide, dimethylamidoazobenzol indicator; combined hydrochloric acid, by difference; pepsin test, 0.2 gramme of moist egg-albumen, made by boiling eggs fifteen minutes and passing the whites through a 40-mesh sieve, was mixed with 5 c. ctm. of filtered stomach contents, the whole kept at 38° to 40° C., and the time noted when the albumen was completely dissolved.

There are some objections that have been offered to the foregoing experiments which I wish to consider here. It is stated that the amount of the test meal was too little. Sixty grammes were used because it is the amount that has been found most advantageous for stimulating the gastric secretion for purposes of diagnosis. It is about the amount of bread that many individuals take with a meal, and it is also a sufficient quantity to stimulate well the gastric secretion. For these reasons I consider it a fair amount.

The criticism is offered that the amount of gastric juice secreted was not measured. It was, of course, impossible to do this, and the omission is not fatal to the interpretation of the results, for, when it is remembered that we know the degree of acidity to which the more than 350 c. ctm. of stomach contents were brought in each instance by the addition of the secreted juice, it must be concluded that in this we have an indirect measure of the quantity of secretion that is quite sufficient to enable us to judge how the quantity compares in the two parallel experiments. The statement that the employment of the stomach-tube stimulates a sudden gush of gastric juice and is responsible for the secretion hardly calls for serious consideration. The process of secretion is slow even under very strong stimulation. There is no reserve of secreted fluid that can be suddenly set free, and the abovementioned accident in the experiments is quite inconceivable.

Attention has been directed to the fact that the pepsin test was not a quantitative estimation of the amount of pepsin present. The limited amount of material did not permit of a quantitative estimation of the pepsin in the stomach contents, so that our knowledge of this constituent is limited to the fact of its presence and to the fact that it exhibited the same activity in a simple test, the chief value of which is qualitative, but in which we might reasonably hope for some indication if the proteolytic activity was materially different.

A more elaborate experiment was then conducted to determine whether the baking-powder bread was absorbed from the alimentary tract to the same extent as the control bread, and whether in the process of digestion and absorption there was evidence of any disturbing influence. The procedure was based upon the method for determining the coefficient of availability of the constituents of a dietary. An individual was given a definite diet for a certain period of time, in this experiment three days, and from the amount and composition of the food eaten and the stools separated it was determined how much the body had gained from the diet. By comparison with a control period under precisely similar conditions, only substituting control bread, it was possible to conclude from our experiments whether or not the baking-powder bread was utilized by the body to the same extent as the control bread. The inquiry further included a study of the urine collected during each period, to determine the amount of nitrogenous waste, and the relative amount of the products of putrefaction absorbed from the intestine. The subject was a healthy man. At times he had experienced sensations of distress in the gastric region, but always following indiscretions in diet, such as eating sweets in large quantities. Under ordinary conditions he did not experience symptoms of stomach dyspepsia.

The diet during the experiment consisted exclusively of bread, meat, milk, and butter as described. The bread used was the crumb of the baking-powder bread and control bread previously described. This was chopped and weighed off in suitable portions for an entire period and sampled for analysis. The meat was lean beef selected from the round, chopped, cooked by heating in a frying pan, salt only being added, squeezed slightly in a press to remove a portion of the juice, and finally distributed into jars and heated in a sterilizer twenty minutes for each of three successive days. Several jars were used for analysis. The milk was obtained fresh and sampled daily, the composite sample for each period being analyzed. Butter was weighed off as required for use from a pail of butter that had been sampled for analysis. The analysis, made by the usual methods, showed the following composition of the food:

	Total solids. Per cent.	Fat. Per cent.	Proteid. Per. cent.	Carbohydrates. Per cent.
Bread, baking powder	47.54	0.22	6.50	39.40
Bread, control	49.74	0.24	6.81	41.30
Meat	49.46	5.43	41.56	——
Milk (baking powder period)	12.34	3.70	3.10	4.78
Milk (control period)	13.63	5.03	3.13	4.76
Butter	89.55	88.04	0.49	——

Period 1.—The baking-powder period was of three days' duration. At the end of the night meal of the day before the period, milk was drank and six grains of lampblack were taken in capsules, and thereafter till the morning of the fourth day following nothing was eaten excepting the prescribed diet and only water was drank. The morning meal of the fourth day, the first following the end of the period, consisted of a pint of milk, which was preceded by the administration of twelve grains of lampblack.

Period 2.—The control period was begun just one week from the beginning of Period 1, and was conducted exactly as the previous period, with the exception of differences noted in the dietary, which is given below.

Diet.

Period 1.— Baking powder bread.	Meat.	Milk.	Butter.
1,800 grammes.	300 grammes.	1,500 grammes.	150 grammes.
Period 2.— Control bread.	Meat.	Milk.	Butter.
1,800 grammes.	300 grammes.	1,500 grammes.	150 grammes.

The nutrients in the diet of each period were:

Period 1 (Baking powder).

	Solids. Grammes.	Protein. Grammes.	Fat. Grammes.	Carbohydrates. Grammes.
Bread.	855.7	117.0	3.96	709.2
Meat.	148.38	124.68	16.29	——
Milk.	185.1	46.5	55.5	71.7
Butter.	134.325	0.735	132.06	——
Totals.	1,323.505	288.915	207.81	780.9

The baking-powder bread of this period made up 64.6 per cent. of the solids eaten.

Period 2 (Control).

	Solids. Grammes.	Protein. Grammes.	Fat. Grammes.	Carbohydrates. Grammes.
Bread.	895.32	122.58	4.32	740.4
Meat.	148.38	124.68	16.29	——
Milk.	204.45	46.95	75.45	71.4
Butter.	134.325	0.735	132.06	——
Totals.	1,382.475	294.945	228.12	814.8

The control bread of this period made up 64.7 per cent. of the solids eaten.

During each period the fæces and urine were collected. The separation of the fæces was satisfactory; they were slightly acidified with hydrochloric acid before drying.

COMPOSITION OF FÆCES.

	Period 1.			Period 2.		
	Percentage.	Total.		Percentage.	Total.	
Air-dry material..		59.1	grammes.		68.3	grammes.
Solids.	91.38	54.006	"	83.08	56.744	"
Protein.	44.62	26.37	"	43.63	29.799	"
Fat.	18.91	11.176	"	18.69	12.77	"
Carbohydrates. . ..	25.83	15.265	"	19.40	13.25	"

COMPOSITION OF URINE.

	Period 1.	Period 2.
Volume.	3,500 c. ctm.	3,250 c. ctm.
Sp. gr.	1.023	1.024
Nitrogen.	47.18 grammes.	46.67 grammes.
Indican	Moderate amount.	Moderate amount.
Combined sulphate (H_2SO_4)..	0.556 grammes.	0.528 grammes.

Comparing the food and the fæces in the two periods, we have the following relations, expressed as percentage of the total dietaries:

	Solids.	Protein.	Fat.	Carbohydrates.
Fæces, period 1............	4.08	9.1	5.37	1.95
Fæces, period 2............	4.1	10.1	5.6	1.6
Diet available, period 1....	95.9	90.9	94.63	98.05
Diet available, period 2....	95.9	89.9	94.4	98.4

It is thus found that the availabilities* of the diets in the two periods are practically identical, agreeing as closely, in fact, as can be expected of duplicate experiments on precisely the same diet.

The compositions of the urine in the two periods, as regards the constituents indicating the degree of absorption of such aromatic products of putrefaction as are formed in the intestines, are so nearly the same that we must conclude that they do not indicate a greater degree of the putrefactive process in one or the other period. In fact, the evidence of the experiment is that the dietaries in Periods 1 and 2 are physiologically identical, and, since the dietary in each instance was composed, to the extent of two thirds, of the breads described, the evidence of the experiment is that the two breads are physiologically the same.

There are certain criticisms of this experiment well worth considering. The point is raised that metabolic nitrogen is not subtracted from the total nitrogen of the fæces, in other words, that the figures obtained represent, not the actual digestibility, but rather the availability, of the diet. It would be interesting to subtract the metabolic nitrogen and obtain actual figures of digestibility, but that is not usually attempted in such experiments, since the methods of determining the metabolic nitrogen at present known are quite inaccurate. It is, after all, the gain to the body in each period which we seek to establish, and that is, of course, indicated by the availability, and not by the digestibility.

The question whether the diet was full and nutritious, including that of whether the subject was in nitrogenous equilibrium, is not to be given the same consideration here as in metabolism experiments in which the question of the balance of income and outgo is all-important. Of course, the diet should contain a fair amount of food, but no effort need be made to establish an equilibrium; on the contrary, to diminish the monotony of a fixed diet, investigators usually administer a little less than sufficient to establish an equilibrium. This does not put the subject in an unhealthy or in any way abnormal state. In fact, individuals vary their diet in this way in everyday life, and even some athletes, in training, for a time do precisely this thing to attain perfect health. The body adapts itself to certain variations that we must recognize as physiological, and the fact that to-day we eat less and to-morrow more is not evidence of ill-health.

In conclusion, then, the evidence of these experiments is that food prepared by the use of a so-called alum baking powder does not interfere with secretion in the stomach; and, even when it makes up the major part of the diet, it is utilized by the body in the same way and to the same extent as an acceptable control diet. The investigation does not reveal any reason for believing such food at all injurious or unwholesome.

A RÉSUMÉ OF SOME PAPERS PRESENTED TO THE THIRTEENTH INTERNATIONAL CONGRESS OF THE MEDICAL SCIENCES.

(*Continued from page 637.*)

The following papers are abstracted from the *Comptes rendus* furnished by the *Agence centrale de la presse scientifique internationale.*

Section of Dermatology and Syphilography.

The Causes of Generalized Infections in Gonorrhœa.—Professor Lesser, of Berlin, said that generalized infection in blennorrhagia supervened especially in cases accompanied by complications. In man, in the greater part of the cases of generalized infection, the posterior urethra was attacked. Moreover, there seemed to be a certain predisposition for the production of general infection, for certain patients who had once had a generalized infection were attacked therewith on each new access of blennorrhagia.

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*The stools consist of (1) metabolic products derived from the alimentary tract and its secretions, and (2) food residue from the diet. The diet less (2) is the digestible portion; the diet less (1) and (2) is the available portion.

The Causes of Generalized Infections by the Gonococcus.—Mr. A. H. Ward, F. R. C. S., of London, said that the generalization of the gonorrhœal infection could not logically be separated from the local focus whence it originated. There was a continuous interaction, and the persistence of the local disease aggravated the general condition. The whole process of the struggle for life between the microbe and the human organism, had to be studied, and from the facts thus collected, a plan of action for prevention and cure deduced. Whether the diplococcus of Neisser and its toxine was the sole cause of the local and general disease, or whether this infection merely paved the way for other organisms, was still an open question. The fact remained that gonorrhœa and its associated pathological states, were due to the presence of microbes and their toxic products. The particular microbes, their names and staining reactions, were questions for the final decision of the bacteriologist and laboratory expert. The reporter had no personal excursions into these special realms to bring forward, but would endeavor to synthesize the observations of many specialists in the light of clinical experience, and so to build up a coherent conception of the life history of the infection in relation to man.

The Struggle for Life between the Microbes and the Body.—The thesis advanced was as follows: the gonococcus in its process of growth in the body produced an irritating toxine, which was the direct cause of all symptoms, both local and general. In every case the toxine was absorbed into the system, where it caused systemic degenerations of varying degrees of severity. Gonorrhœa was thus a general toxæmic affection, but the microbes which formed the toxine were generally localized in, or around, a mucous tract. The infection might spread by continuity to the ducts and organs which communicated with the tract affected, or it might penetrate to the interior of the body, either by direct extension, or by a process of growth through the mucous membrane affected. Thence the invasion reached the cellular tissues, the lymphatics and glands, and the vascular system. This invasion was rendered possible, by the paralyzing effect of the toxine absorbed upon the leucocytes, which in susceptible individuals, hindered the process of phagocytosis. Having reached the circulation, the microbes were conveyed to the heart, or to terminal capillary circulations in serous and synovial membranes, or to the slender vessels in tendons and fibrous structures. In these situations they became stranded, and developed, forming more toxine, which set up local inflammations. The invasion of the organism was favored by all too-energetic measures, directed to the local infection, since these depressed the local powers of resistance; and by abrading or lacerating the mucous surface, might directly open doors to the invaders. General treatment should be directed to the general toxæmia when present alone, or to the toxæmia complicated by metastases. Local treatment was always required, and should be free from instrumental, mechanical, or chemical violence.

The Toxine of the Gonococcus and its Absorption.—He demonstrated its existence and properties and that its absorption was the cause of the malaise, high temperature and anæmia, seen in all severe cases. The local discharge was the osmotic and chemotaxic equivalent of the toxine absorbed. Grave general toxæmic degenerations occurred in exceptional cases. Cachexia, nervous affections, optic neuritis, erythematous, hæmorrhagic, and hyperkeratitic skin diseases, were the signs of such degenerative processes. The distinction was shown between these general toxic effects and the local inflammations caused by metastases.

The Invasion of the Tissues by the Gonococcus.—This invasion was only possible when the leucocytes were inhibited by the toxine absorbed from the primary focus. The action of local antiseptic measures was pointed out.

The Action of the Toxine on the Leucocytes.—Drobny's researches, Heiman's case, Brewer's views on the invasion of the lymphatic system, were dwelt upon.

The Gonococcus in the Blood.—Its demonstration by Panichi, by the cultivation method, was referred to, as also the generally sparse invasion of the joints, followed by chronic inflammations. The relation of cardiac disease was dwelt upon.

The Local Effects of the Toxine Developed in Metastases were re-enforced by the toxine absorbed from the primary focus. The destruction of this focus was necessary in all cases.

Prevention and Cure.—General toxæmia must be attacked by measures directed to the elimination, or attenuation of the toxine. Metastases must be attacked by germicides. The dangers of local violence were pointed out and a case in point given. The reporter gave his experience of generalization as 12 cases in 2,000, or 0.6 per cent. He re-echoed Neisser's words: "It is surely beyond a doubt that the frequency of complications depends on the method of treatment."

Section of Gynæcology.

The Surgical Treatment of Cancer of the Uterus.—Dr. Thomas S. Cullen, of Baltimore, briefly referred to the gradual improvement in the operation for carcinoma of the uterus, commencing with amputation of the cervix as practised by Schröder and his contemporaries, abdominal hysterectomy as recommended by Freund, the catheterization of the ureters as employed by Pawlick and Kelly, and the more radical operation consisting in the removal of the iliac glands as advocated by Ries, Rumpf and Clark. He then pointed out the danger of implanting carcinomatous into healthy tissue as was very likely to occur when the radical operation was performed. He next described in detail the operation as performed by Werder, of Pittsburgh. In this operation the chance of implanting carcinomatous tissue was reduced to a minimum. The various stages in the abdominal operation, where the cancer was limited to the cervix, were as follows:

1. Removal of broken down carcinomatous cervical tissue, preferably a few days before. 2. Insertion of ureteral bougies if desired. 3. Ligation of the ovarian vessels and round ligaments. 4. Freeing of the bladder from the uterus and broad ligaments. 5. Opening of the broad ligaments, location and freeing of the ureters up to the points at which they enter the bladder. 6. Ligation of the uterine vessels near their points of origin. 7. Dissection of the bladder free from the vaginal vault. 8. Dissection of the rectum from the vaginal vault. 9. Removal of pelvic lymph glands. 10. Freeing of the vaginal fornices. 11. Closure of the pelvic cavity by uniting the vesical peritonæum with that of the rectum, an assistant meanwhile making strong traction on the cervix from below. 12. Closure of the abdomen. 13. Ringing of the vaginal vault with a thermo-cautery or knife, thus freeing the uterus and its surrounding vaginal mucosa. 14. Application of a light gauze pack to the space left in the vaginal vault.

As will be noted, the uterus was thus freed on all sides, the vagina dissected loose from the bladder and rectum and the pelvic and abdominal cavities closed before the operator came in contact with the carcinomatous cervix. Even then there was little or no danger of transplantation of carcinomatous tissue. The author advised this operation in all cases where the patient was not excessively stout. Of course in such instances we had frequently to rely on a vaginal operation entirely. In adenocarcinoma of the body of the uterus the same operation might be performed, but the wide removal of the vaginal mucosa was not necessary. The speaker then briefly analyzed a hundred and seventy-six cases of carcinoma of the uterus occurring in the Johns Hopkins Hospital during the last six years.

General summary of the cases of carcinoma of the uterus:

Variety of Carcinoma.	*Operative Cases.*	*Patients Well January 1, 1900.*
Squamous-celled carcinoma of the cervix.	61	13 = 21%
Adenocarcinoma of the cervix	12	2 = 16%
Adenocarcinoma of the body of the uterus.	30	19 = 63%

Cases Coming too Late for Operation.

Squamous-celled carcinoma of the cervix.	62 cases
Adenocarcinoma of the cervix.	6 cases
Adenocarcinoma of the body.	5 cases
Total.	176 cases

The prognosis was most favorable in adenocarcinoma of the body; least promising in adenocarcinoma of the cervix.

Therapeutical Notes.

The Treatment of Rheumatism with Large Doses of Salicylate of Methyl.—Dr. Cosma (*Revue médicale*) in a paper read at the Paris International Congress, said that he began the treatment with from fifteen to thirty grains daily, and increased it to from 120 to 150 grains. The formula which he uses is as follows:

℞	Salicylate of methyl.	120 grains;
	Mucilage.	2,250 "
	Rum, Syrup, each.	375 "
M.		

This quantity to be taken in forty-eight hours. This drug may replace salicylate of sodium where the latter is not tolerated.

Wafers for Trigeminal Neuralgia.—The *Gazette hebdomadaire de médecine et de chirurgie* for August 30th attributes the following to Hirschkron:

℞	Extract of Indian hemp.	7½ grains;
	Salicylic acid.	75 "
M.		

Mix and divide into ten wafers. Three wafers may be taken daily.

Enema for General Debility in Grave Gastro-intestinal Troubles of Children.—The *Gazette hebdomadaire de médecine et de chirurgie* for August 30th ascribes the following to Fede:

℞	Quinine hydrochloride, Assafœtida, Tincture of musk, of each,	15 grains;
	Boiled water.	7 ounces;
	Yolk of.	1 egg.
M.		

From three to four in twenty-four hours.

For Alopecia Consecutive to General Morbid Conditions.—*Lyon médical* for September 9th attributes the following to Brocq:

℞	Alcohol at 80°.	1,200 grains;
	Camphorated alcohol.	75 "
	Tincture of cantharides.	75 "
	Glycerin.	75 "
	Oil of sandal wood.	5 drops;
	Oil of wintergreen.	5 "
	Pilocarpine hydrochloride. . . .	7½ grains.
M.		

To be applied with light friction once daily to the scalp.

Scholz's Paste for Impetigo.—The *Deutsche Aerzte-Zeitung* for September 15th gives the formula as follows:

℞	Precipitated sulphur.	10 parts;
	Zinc oxide, Rice powder, each.	20 "
	Glycerin, Distilled water, each.	25 "
M.		

To be well shaken before being used. It is to be applied after the crusts have been removed, and allowed to dry on.

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SPINAL-CANAL COCAINIZATION.

PROBABLY by no other means yet known can local analgesia so extensive and prolonged be obtained as by the new procedure of injecting a solution of cocaine within the meninges of the spinal cord. Speaking of previous reports of its satisfactory employment, a contributor to our issue for October 20th, Dr. J. E. Massey, Jr., of Rock Hill, South Carolina, who reported a case of his own, said: "Only a few years ago, to have heard such reports and been told that a hip-joint amputation or a hysterectomy or nephrectomy could be performed, and an interesting conversation carried on at the same time with the patient, would have sounded like a fairy tale or one worthy to rival those of Baron Munchausen." This is quite true, but is this new method of anæsthetization destined to prove, on the whole, of substantial benefit to our art and to humanity? We have our misgivings on this question.

We are not convinced that subarachnoid cocainization is one whit safer than general anæsthesia; we fear that it is not so safe. We are not aware that a case of death attributable to it has yet been reported in print, but rumors have come to our ears of verbal statements to the effect that several instances have already occurred in Europe. Whether or not these rumors have sufficient foundation in fact to entitle them to grave consideration, we cannot avert the feeling that endomeningeal injections of cocaine are dangerous, and that, too, out of proportion to any advantage, real or fancied, that may attend their use. The puncture itself, to say nothing of the cocaine, is not wholly free from danger, and, in our opinion, should not be lightly undertaken. Gumprecht (*Deutsche medicinische Wochenschrift,* xxvi, 1900, p. 386; *Journal of the American Medical Association,* October 20th) reports seventeen cases of sudden death following simple lumbar puncture for diagnostic purposes. We hope we are mistaken, but we fully expect to meet presently with reports of death from this method of anæsthetization.

Apart from the question of danger, it has already been shown that endomeningeal cocainization is apt to be attended with occurrences which, to say nothing more, are unpleasant. Not the least of these are involuntary urination and defæcation. Already a prominent New York surgeon has told us of a case of abdominal section performed under this sort of anæsthesia in which he was much alarmed at the odor perceived on cutting into the peritonæum, but in which it was soon found that the patient, wholly unconscious of the fact, had had an alvine evacuation. This mishap, we are quite aware, occasionally occurs during general anæsthesia, but at least the patient is then spared the embarrassment of the discovery, and we may well imagine that in a serious case his chagrin might turn the scale against him. The instances must be exceptional, we think, in which it is of advantage to preserve the patient's consciousness during a major operation. A conversation with him may be "interesting," but it may also be embarrassing and even injurious to his welfare, if not, indeed, to the surgeon's reputation. We fancy, too, that there are few human beings who would prefer to remain conscious during a severe operation rather than lapse gently into blissful unconsciousness.

In short, we can see no great advantage in this new method of anæsthetization, and we feel that it has great defects. Our attitude toward it is precisely what it was toward the curative use of Koch's tuberculin when, in our issue for November 22, 1890, we counselled less blind enthusiasm in its employment. Whatever its defects may be shown to be, however, they must not be set down against Dr. Corning, who is now being tardily recognized as the pioneer in the endomeningeal use of cocaine, for reference to his original article, published in the *New York Medical Journal* for October 31, 1885, shows that at the time of writing his article he in nowise urged the use of his procedure for purposes of surgical anæsthetization and, moreover, he has quite recently expressed his dread of the possible consequences of its routine employment; nevertheless, the subject is now receiving extraordinary attention, and, at the request of many of our readers, we shall reproduce Dr. Corning's original article in our next issue.

THE SOLDIER'S DIET IN THE TROPICS.

MAJOR AND SURGEON W. O. OWEN, of the army, opposes in the *Cincinnati Lancet-Clinic* for September 29th, the view, widely entertained, that a man's diet in the tropics should have its nitrogenous elements reduced, and he supports his contention with able arguments. It is not from choice, he says, that the laborer of the tropics lives on rice, bananas, etc., or the Irish cotter on potatoes, or the Eskimo on fat, but from necessity, at least to a great extent, for in the tropics vegetables and fruit are abundant and cheap, whereas meat is expensive and hard to preserve, while in the Arctic regions the conditions are reversed. Habit has caused each to prefer his own diet, but practically all men prefer a diet consisting largely of meat when they are called upon to perform hard labor. We are accustomed, says Dr. Owen, to say and to feel that when we go into the tropics we must reduce our allowance of food, because, owing to the heat, we need less, and, if we take the home quantity, it will make us sick, because we are simply overworking our digestive and eliminating organs with the task of getting rid of material which we cannot use. But this, he thinks, is erroneous; the diseases contracted in the tropics are due to germs, which there find all food products better media for their growth and multiplication than the same products in temperate or frigid regions.

The author recounts that for several months he had charge of three hundred convalescents and fifty nurses in the tropics, and found that they consumed all the beef, eggs, chickens, ducks, etc., that he could obtain for them, and wanted more. At the end of the period they were in as good condition as that of the inmates of any of the other hospitals in the neighborhood. His own personal experience was that so long as he tried to live on a vegetable diet, in conformity to theory and tropical natives' custom, he was uncomfortable and despondent, and that when he resumed his full meat diet his energy returned. Moreover, his native servants ate, with evident relish and benefit, all the meat that could be spared for them from the mess. The experience of Americans on the Isthmus of Panama and that of Englishmen in India appear to bear out Dr. Owen's contention.

If any change is to be made in the ration of our troops in the tropics, says Dr. Owen, it should be in the nature of an increase, but their food should be cared for infinitely more than it is at present; it is in good condition when it leaves the United States, but it becomes infected with germs on the first relaxation of carefulness, and it is then condemned, "whereas condemnation should rest on him who handled it carelessly."

THE PHYSICIANS' GUARANTEE COMPANY.

We have before us the prospectus of this medical defense union, incorporated under the laws of Indiana and having its home office in Fort Wayne. The president of the company is Dr. A. P. Buchman, of Fort Wayne. The company is empowered to do business in any State in the Union, and we understand that it is prepared to attend to it in any State. Its sole work is that of defending its contract-holders in suits for malpractice. The prospectus announces that it has a staff of competent lawyers who have made a special study of malpractice cases and have more than an ordinary lawyer's facilities for promptly informing themselves concerning the facts in cases that are tried from time to time. The idea seems to be to make the best possible legal fight for a contract-holder in case he is sued for malpractice; this and nothing more. It will bear all the expenses in a case, including the fees of a lawyer belonging in a subscriber's own county, to be chosen by him, up to the amount of $5,000 in one case, and it is ready to render its services in two cases annually to any one subscriber so long as the contract remains in force. All this seems to guarantee that a contract-holder may count upon being saved the expense of defending himself, but, of course, nothing can guarantee him against the imputation of having been sued, which, unfortunately, is equivalent in many mean minds to proof of culpability.

Most suits for malpractice, as we all know, are mere blackmailing schemes, but occasionally it happens that a practitioner has really been in error and a compromise is judicious. The company does not take it upon itself to decide what cases are of such a nature and what are not; if the physician elects to fight a case, the company fights it for him. If, however, both the company and the defendant think it best to compromise, the company conducts the affair in the direction of an agreement with the plaintiff. On the other hand, the company will not compromise on the defendant's initiative alone, and no doubt this proviso secures it against the admission of unworthy subscribers. So far as we can see, there is absolutely no inducement for a reckless, ill-equipped, or conscienceless practitioner to enter into a contract with the company, for it will simply defend him, without undertaking to pay damages for him. But there seems to be every reason why an honest and well-informed physician should avail himself of the resources of such an organization. We do not know that there is any other corporation of the sort in existence. Concerning this one, we must say that its plan of action appears most commendable. Its financial responsibility, too, seems ample. We have heard much of concert of action in repelling the onslaughts of suit-mongers, but this is the only practicable organization for the purpose of which we have any knowledge.

A NEW JOURNAL OF NURSING.

We have received the first number, dated October, of the *American Journal of Nursing,* a monthly of ninety-five pages of reading matter, published by the J. B. Lippincott Company, of Philadelphia, for the Associated Alumnæ of Trained Nurses of the United States. We find its contents interesting and valuable, and we have no doubt it will prove acceptable to the sisterhood of nurses.

A PROPOSED INTERNATIONAL ASSOCIATION OF SURGERY.

Dr. Marcel Baudouin, in the *Gazette médicale de Paris* for September 8th, considers that the time has come for the formation of an international association of surgery, to be established on lines analogous to those of the international association of academies recently founded at Paris. The functions of such an association would be to facilitate the scientific relationships between all countries as regards surgery. Its organs would be an international committee and a permanent general assembly composed of special delegates who should meet from time to time, say every three years. The association should be formed of the various surgical societies of different countries, and where no such societies existed the difficulty might be overcome in the same manner as in the case of the international association of the medical press. Marcel Baudouin, the energetic, is nothing if not enthusiastic, and we are so far infected by his enthusiasm as to hope that his suggestion will receive consideration as to its practicability.

MEAT POISONING BY THE PROTEUS VULGARIS.

The acute poisoning that sometimes follows the ingestion of certain articles of food is doubtless of very diverse origin in different instances. An example in which it was attributed to *Proteus vulgaris* is reported by Dr. S. Glücksmann (*Centralblatt für Bakteriologie, Parasitenkunde und Infektionskrankheiten,* xxv, 20; *Centralblatt für innere Medicin,* September 29th). Two persons ate of the flesh of a pig that had had to be killed, apparently because it was diseased. The pork was lightly smoked. Both individuals suffered with severe gastroenteritis, and one of them died. *Proteus vulgaris* was found in the gastric contents and in the pork, and it is suggested that that organism may have been the cause of the disease in the pig.

BLOODLETTING AT THE CHANGE OF LIFE.

Occasionally somebody seeks to revive the old practice of bloodletting for certain conditions. For example, Herz (*Zeitschrift für praktische Aerzte,* 1900, No. 8; *Centralblatt für Gynäkologie,* September 29th) reports excellent results in a number of cases of plethora at the climacteric. The intervals between the bleedings were never less than three months.

OUR PRESENT FREEDOM FROM YELLOW FEVER.

The season during which any apprehension might be felt of the introduction of yellow fever into the United States is fast drawing to its close, and the disease has not made its appearance here. For this immunity the country is indebted to the watchfulness of the medical officers of the Marine-Hospital Service and of our quarantine officials.

THE COLLECTION OF PHYSICIANS' FEES.

Probably no other professional man suffers so much loss from failure to collect his fees as the physician does. The average income of the clergyman is doubtless smaller than that of the physician, but it is at least definite in amount, and he receives it with a reasonable degree of promptitude. In the case of the physician, however, the income is not only uncertain in amount, but very slow of realization. The characteristic attitude of a large proportion of mankind is indicated in the distich:

> The devil was sick, the devil a saint would be.
> The devil got well, the devil a saint was he.

The gratitude which during sickness pervades the entire family of a convalescent rapidly grows cold after his recovery, and the physician who delays the sending in of his account notably lessens his chances of collecting it. To shoot the patient is, of course, inadmissible, although this course is said to have been pursued by a Colorado physician in his efforts to collect his fees, but it is highly desirable that physicians generally should act more promptly in presenting their accounts, for to procrastinate is certainly to invite disaster.

THE SHORT SKIRT.

The short skirt has been officially approved of in the monthly report of the secretary of the Connecticut State Board of Health, Dr. C. A. Lindsley. This official approval has an important bearing upon school sanitation, for in some instances school-teachers have been criticised for wearing short skirts while in the discharge of their duties, whereas, as is pointed out by Dr. Lindsley, there is no inconsiderable danger of the introduction of disease germs into the school-room through the agency of the long skirt, which gathers much of the filth and disease germs of the street. Fortunately, the short skirt is growing to be the fashion, and for this reason, rather than on sanitary grounds, the woman school-teachers will no doubt adopt it.

THE DOCTOR IN GENERAL LITERATURE AGAIN.

We are glad to learn that Dr. G. Frank Lydston, of Chicago, has again been busy in the field of general literature. His forthcoming book, to be entitled *Panama and the Sierras,* will doubtless prove both instructive and entertaining. The publishers, the Riverton Press, of Chicago, announce an *édition de luxe.*

THE CONSUMPTIVE'S SPUTUM.

In a judicious circular recently issued by the Michigan State Board of Health we find the following suggestion: "It is best that all persons who have a cough should carry small pieces of cloth (each just large enough to properly receive one sputum) and paraffined paper envelopes or wrappers in which the cloth, as soon as once used, may be put and securely inclosed, and, with its envelope, burned on the first opportunity." The injunction is added that the sputum must not be swallowed or allowed to become dry.

"TYPHOMALARIAL" FEVER.

The nosology of that particular form of disease which many American physicians are inclined to term "typhomalarial" fever is somewhat obscure. Perhaps, for statistical purposes, the classification adopted by the Michigan State Board of Health will prove satisfactory. The board includes it under typhoid fever, terming the ordinary form "enteric typhoid fever."

ITEMS.

Infectious Diseases in New York.—We are indebted to the Sanitary Bureau of the Health Department for the following statement of cases and death reported for the two weeks ending October 20, 1900:

Diseases	Week end'g Oct. 13.		Week end'g Oct. 20.	
	Cases.	Deaths.	Cases.	Deaths.
Typhoid fever	139	27	88	16
Scarlet fever	61	4	55	1
Cerebro-spinal meningitis	0	3	0	6
Measles	41	2	36	1
Diphtheria	181	26	192	35
Tuberculosis	276	140	254	166
Laryngeal diphtheria (croup)	8	4	4	3

Marine-Hospital Service.—*Official List of the Changes of Station and Duties of Commissioned and Non-commisioned Officers of the United States Marine-Hospital Service for the Seven Days ended October 18, 1900:*

Gassaway, J. A., Surgeon. Leave of absence for four days from October 15, 1900, under provisions of paragraph 179, Regulations, M. H. S.

Stoner, G. W., Surgeon. Granted three days' extension of leave of absence October 16, 1900.

Stoner, J. B., Passed Assistant Surgeon. Granted leave of absence for twenty-two days from October 30. October 12, 1900.

Young, G. B., Passed Assistant Surgeon. Granted leave of absence for one day, October 12, 1900.

Currie, D. H., Assistant Surgeon. To proceed to Indianapolis, Indiana, in charge of the laboratory exhibit of the service to be shown at the meeting of the American Public Health Association, October 12, 1900.

Scott, E. B., Hospital Steward. Granted leave of absence for twenty days from October 22. October 13, 1900.

Board Convened.

Board convened to meet at the Purveying Depot, New York, N. Y., on Wednesday, October 24, 1900, for the purpose of revising the official supply table of the service. Detail for the board, Surgeon G. W. Stoner, chairman, and Surgeon C. E. Banks.

Appointments.

Roehrig, Albert M., appointed temporary hospital steward and assistant chemist for duty at Immigration Depot, New York, N. Y., October 13, 1900.

Schlaar, W. F., reappointed senior hospital steward, October 13, 1900.

Marine-Hospital Service Health Reports.—The following cases of small-pox, yellow fever, cholera and plague have been reported to the Surgeon-General during the week ended October 19, 1900:

Small-pox—United States.

Lexington, Kentucky	Oct. 6-13	1 case.	
New Orleans, Louisiana	Sept. 30—Oct. 13.	1 "	1 death.
Minneapolis, Minnesota	Oct. 6-13	2 cases.	
Omaha, Nebraska	Sept. 30—Oct. 6	1 case.	
Cleveland, Ohio	Oct. 6-13	9 cases.	
Salt Lake City, Utah	Oct. 6-13	10 "	
Wheeling, West Virginia	Sept. 30—Oct. 6	1 case.	

Small-pox—Foreign.

Rio de Janeiro, Brazil	Aug. 1—Sept. 15		57 deaths
London, England	Sept. 22-29	2 cases.	
Paris, France	Sept. 22-29		6 deaths.
Bombay, India	Sept. 6-18		3 "
Calcutta, India	Sept. 1-15		17 "
Manila, Philippines	Jan. 1—Sept. 8	35 "	1 death.
Moscow, Russia	Sept. 8-15	4 "	
Odessa, Russia	Sept. 22-29	9 "	4 deaths.
St. Petersburg, Russia	Sept. 15-22	9 "	4 "
Dundee, Scotland	Sept. 22-29	1 case.	

Yellow Fever—United States.

New York Quarantine, N.Y.	Oct. 9	1 case, on steamship Havana, from Havana.	

Yellow Fever—Foreign and Insular.

Rio de Janeiro, Brazil	Aug. 1—Sept. 15		10 deaths.
Havana, Cuba	Oct. 5-12	76 cases.	14 "
Progreso, Mexico	Sept. 15-30	3 "	3 "
Vera Cruz, Mexico	Sept. 30—Oct. 6		10 "

Cholera.

Bombay, India	Sept. 6-18		224 "
Calcutta, India	Sept. 8-15		20 "
Karachi, India	Sept. 1-16	34 "	26 "
Madras, India	Sept. 1-14		133 "
Yokohama, Japan	Sept. 1-8	1 case.	1 death.

Plague—Foreign and Insular.

Amoy, China	Aug. 11—Sept. 8.		90 deaths. (Estimated.)
Bombay, India	Sept. 4-18		155 deaths.
Calcutta, India	Sept. 1-15		100 "
Osaka, Japan	Sept. 17-23	12 cases.	
Manila, Philippines	Jan. 1—Sept. 8	215 "	146 "
Glasgow, Scotland	Aug. 31—Oct. 6	29 "	8 "

Naval Intelligence.—*Official List of Changes in the Medical Corps of the United States Navy for the Week ending October 20, 1900:*

Derr, E. C., Medical Inspector. Detached from the Navy Yard, Portsmouth, N. H., on reporting of relief, and ordered home to await orders.

Stephenson, B. F., Surgeon. Ordered to the Navy Yard, Portsmouth, N. H., October 25th.

Odell, H. E., Assistant Surgeon. Order to the Asiatic Station modified; to take passage on the *Solace*.

Stephenson, F. B. Commissioned Medical Inspector from May 31, 1900.

Dunn, H. A., Assistant Surgeon. Detached from the *Dorothea* and ordered to the *Frolic*.

Changes of Address.—Dr. A. Edward Davis, to No. 42 East Forty-first street, New York; Dr. Ramon Guiteras, to No. 75 West Fifty-fifth street, New York; Dr. Edward Wallace Lee, from Omaha, Nebraska, to No. 27 Limnar Building, Vandeventer and Washington avenues, St. Louis; Dr. I. N. Love, from St. Louis, to the Iroquois, No. 49 West Forty-fourth street, New York; Dr. Ernest Mark, from Louisville, Kentucky, to No. 2905 Campbell street, Kansas City, Missouri; Dr. E. L. Meierhof, to No. 1140 Madison avenue.

The New York State Association of Railway Surgeons will hold its annual meeting at the Academy of Medicine, New York, on Thursday, November 15th, under the presidency of Dr. J. L. Eddy, of Olean.

The Late Dr. Lewis A. Sayre.—At a recent meeting of the faculty of the University and Bellevue Hospital Medical College the following minute was entered on the records:

The members of the faculty realize with deep regret their great loss in the death of their late colleague, Professor Lewis A. Sayre, M. D. His long and honorable professional career has shed lustre on the calling of his choice and on the medical school to which, at its birth, he plighted his earnest support, and which he sustained with loyal vigor until his death.

While bowing in humble submission to the will of Him "Who doeth all things well," we extend to the members of his family our earnest assurance of sympathy in this their great affliction.

[Signed] Hermann M. Biggs,
Secretary.

An American Doctor who was a British Peer.—The *British Medical Journal* contains some decidedly interesting facts concerning the recent death of Dr. Fairfax, of Maryland, whom it denominates a "Medical Peer in America." It says:

"The death is announced of Dr. Fairfax, of Maryland, who was the eleventh Baron Fairfax of Cameron in the peerage of Scotland. John Contée Fairfax, one of whose ancestors was Commander-in-chief of the Parliamentary forces at the battle of Marston Moor, while another married the Hon. Miss Colepepper and founded an American family in Virginia, died at his plantation, Northampton, Prince George County, Maryland. Neither he nor his elder brother, from whom he inherited the peerage, would ever take measures to have the title confirmed.

"The only title by which he cared to be known was that of Doctor, which he held as a graduate in medicine of the University of Pennsylvania. He was born in Virginia in 1830. * * * When the Civil War began his family, as Southern sympathizers, found matters so disagreeable at Georgetown, where they were then residing, that they moved to a point near Bellsville, in Maryland. Thenceforth Dr. Fairfax, who in 1857 married the daughter of Colonel Kirby, of the United States Army, lived on the lands and modest fortune which descended to him. He inherited the title in 1869 upon the death of his brother Charles, a sturdy democrat, who lived for many years at San Francisco. The Northampton plantation consisted of about 700 acres and a house over 150 years old.

"The title, although the late peer never formally assumed it, was officially recognized by the Court of Great Britain, and frequently letters bearing official seals, inviting Baron Fairfax to Court functions, arrived at Northampton. Lord Fairfax is succeeded by his son, the Hon. Albert Kirby Fairfax, who was born in 1870, and who resides in New York. Lord Fairfax's death is believed to have been indirectly due to a bad fall he had some years ago while driving a fractious horse, which came down and injured his spine. It was from the Fairfax family's settlement in America that Thackeray drew the inspiration for *The Virginians*."

More Army Surgeons Needed.—The recent report of Surgeon-General Sternberg is notable for its demand for more army doctors. The proportion of sickness to the total number of enlisted men is greater than in any past term in the history of the American army. The Surgeon-General ascribes the high percentage of hospital cases to the fatigues of arduous campaigns. No doubt that is a factor, but the principal cause is the inability of men from the temperate zone to bear such fatigues in a tropical climate. The cause is unavoidable and the gallant fellows who volunteer in the service of their country are entitled to the best care that medical science can afford.

Physician Captures a Murderer.—To Dr. Charles A. Noiret, of New Orleans, has been awarded the $250 reward offered for the capture—dead or alive—of Robert Charles, the negro assassin whose crimes precipitated a race riot.

Officers of the Clinical Society of Maryland.—At the first regular meeting of the season, held on October 19th, the Clinical Society of Maryland elected the following officers: President, Dr. W. J. Todd, of Mount Washington; vice-president, Dr. H. B. Jacobs; recording secretary, Dr. H. O. Reik; corresponding secretary, Dr. Nathan Herman; treasurer, Dr. J. F. Crouch; member of finance committee, Dr. J. M. Craighill; executive committee, Dr. Jacobs, Dr. Gardner, and Dr. Gilchrist. An address was delivered by Dr. William Osler on his recent visit to the centennial celebration of the College of Surgeons of Great Britain.

Washington's Governmental Charity Institutions.—Attorney-General Griggs has rendered an important opinion as to the relationship of the Secretary of the Interior to the four governmental institutions, the Government Hospital for the Insane, the Columbia Institution for the Deaf and Dumb, the Freedmen's Hospital and Asylum, and the Washington Hospital for Foundlings, in view of the acts of Congress creating the board of charities. Briefly summed up, the opinion is that all of the institutions are charitable within the meaning of the board of charities act, and are therefore subject to the general supervision of that board. The Attorney-General says, however, that this general supervision does not materially affect the jurisdiction of the Secretary of the Interior, as provided by previous laws.

Officers of the Children's Hospital, Buffalo.—The officers and entire medical staff of the Children's Hospital, Buffalo, N. Y., were re-elected at the recent annual meeting of the board of trustees.

Dr. George W. Webster Appointed to the Illinois Board of Health.—Dr. R. F. Bennett having resigned his post on the Illinois State Board of Health to accept a position as superintendent of the asylum for the insane at Anna, Ill., the governor of the State has appointed as his successor on the board Dr. George W. Webster, of Chicago, librarian of the American Medical Association. Dr. Webster is not a politician and has never before held office. He is eminently well fitted for the position, however. He is professor of physical diagnosis in the Northwestern Medical College and attending physician to the Moray and Wesley hospitals.

No School Physicians for Cleveland.—The school council of Cleveland, O., passed a resolution, some time back, providing for the appointment of three physicians to act as sanitary inspectors of the public schools. Owing to lack of funds to pay the salaries involved, no appointments have been made. It is said by the health department that these independent inspectors are not necessary.

Society Meetings for the Coming Week:

TUESDAY, *October 30th:* Rome, New York, Medical Society; Boston Society of Medical Sciences (private); Medical Societies of the Counties of Queens (semi-annual, Garden City) and Rockland (semi-annual), New York.

WEDNESDAY, *October 31st:* Auburn, New York, City Medical Association; Berkshire, Massachusetts, District Medical Society (Pittsfield); Middlesex, Massachusetts, North District Medical Society (Lowell); Gloucester, New Jersey, County Medical Society (quarterly).

THURSDAY, *November 1st:* New York Academy of Medicine; Brooklyn Surgical Society; Society of Physicians of the Village of Canandaigua, New York; Medical Society of the County of Orleans, New York (annual, Albion); Boston Medico-psychological Association; Obstetrical Society of Philadelphia; United States Naval Medical Society (Washington); Medical Society of City Hospital Alumni, St. Louis; Atlanta Society of Medicine.

FRIDAY, *November 2d:* Practitioners' Society of New York (private); Clinical Society of the New York Post-graduate Medical School and Hospital; Baltimore Clinical Society.

SATURDAY, *November 3d:* Manhattan Medical and Surgical Society, New York (private) · Miller's River, Massachusetts, Medical Society.

Births, Marriages, and Deaths.

Married.

DANLEY—SHANK.—In Lancaster, Pa., on Tuesday, October 16th, Warren Randolph Danley to Miss Marion Grace Shank, daughter of Dr. D. H. Shank.

GREENOUGH — GOODWIN.— In Cambridge, Mass., Tuesday, October 16th, Dr. Robert B. Greenough to Miss Amelia M. Goodwin.

HUBBARD—RICHARDSON.—In Beverly, Mass., Wednesday, October 10th, Dr. Joshua Clapp Hubbard to Miss Marion Gray Richardson.

MECRAY—BOYER.—In Camden, New Jersey, Thursday, October 18th, Dr. Paul M. Mecray to Miss Jane Boyer.

PROCTOR—MARTIN.—In Gloucester, Mass., Friday, October 19th, Dr. Percy C. Proctor to Miss Mary H. Martin.

WENTWORTH—FRANCIS.—In Worcester, Mass., October 9th, Dr. Arthur Howard Wentworth, of Boston, to Elizabeth Kinnicutt, daughter of Dr. George E. Francis.

Died.

BOSWELL.—In Colfax, Wash., on Wednesday, October 10th, Dr. John Boswell, in the eighty-ninth year of his age.

BOYER.—In Philadelphia, Pa., on Monday, October 15th, Dr. David Pellman Boyer, in the seventy-sixth year of his age.

BROOKE.—In Radnor, Pa., on Thursday, October 18th, Captain Benjamin Brooke, son of Major John Brooke, Surgeon U. S. A., retired.

CARLYLE.—In Toronto, Canada, Saturday, October 13th, Dr. James Carlyle, in the sixty-ninth year of his age.

ELSTON.—In Barela, Col., on Friday, October 12th, Dr. John W. Elston, in the fifty-sixth year of his age.

ISZARD.—In Gloucester County, Pennsylvania, on Saturday, October 20th, Dr. Jacob H. Iszard.

KEITH.—In St. Joseph, Mich., on Wednesday, October 17th, Mrs. Keith, wife of Dr. Wm. Geo. Keith, in the seventy-ninth year of her age.

MILLER.—In San Leandro, Cal., on Tuesday, October 11th, Dr. J. H. Miller, in the fifty-eighth year of his age.

MORETON.—In Brooklyn, N. Y., on Saturday, October 20th, Dr. Henry Moreton.

REILLY.—In Carlisle, Pa., on Saturday, October 20th, Dr. W. F. Reilly, in the forty-eighth year of his age.

STURGEON.—In Uniontown, Pa., on Monday, October 15th, Dr. W. H. Sturgeon, in the seventy-fourth year of his age.

THOMAS.—In Philadelphia, Pa., on Wednesday, October 17th, Dr. Edwin S. Thomas, in the seventy-second year of his age.

WHEELER.—In Joplin, Mo., on Tuesday, October 16th, Dr. C. C. Wheeler.

Pith of Current Literature.

Annals of Gynæcology and Pædiatry, September, 1900.

The Prophylactic Douche. By Dr. O. S. Chapman.—The author disapproves of its discontinuance as a routine measure, and supports his arguments by the testimony of others and by instances of its use with profit in his own experience.

Pelvic Suppuration. By D. Florus F. Lawrence, D. Sc.

The Operative Treatment of Complete Prolapse of the Uterus in Elderly Women. By A. Lapthorn Smith, M. D., B. A., M. R. C. S.—The author believes that a woman suffering from procidentia or prolapse is in a very miserable condition, and is in danger of consequent ulceration of the cervix and of the ulceration becoming cancerous. A vaginal hysterectomy should therefore be performed, and it has been demonstrated that elderly women support these operations remarkably well. Ventrofixation gives good results when the uterus is short, but fails when it is long. Either operation should always be followed by an anterior and posterior colporrhaphy. Rest for six weeks in bed should be insisted upon after the operation, in order that the new tissue may become strong.

Selected Article: Obstetrical "Don't Fails." By Dr. Charles I. Page.—Quoted from the *New York Medical Journal,* Vol. lxxii, No. 6.

Gynæcology as a Specialty. By Dr. J. B. McGaughey.—It is impossible to define with mathematical accuracy the special field of the gynæcologist, yet there are a number of affections so clearly belonging to his province, that he may claim them without fear of his rights being successfully assailed.

Brooklyn Medical Journal, September, 1900.

Some Problems Concerning Nervous Disease. By Dr. F. W. Langdon.—In this address, delivered before the Brooklyn Society of Neurology, Dr. Langdon dwelt upon the new conception of neurology initiated by the neurone theory.

"Anatomically the neurone has converted chaos into order. That which was a jungle of foliage and weeds is becoming an orderly garden of well-trained shrubbery.

"Pathologically, the neurone enables us to arrange a mass of disconnected facts into a mosaic of knowledge of fairly definite pattern. It enables us to recognize the limits of degeneration in certain cases and to predict results based upon those limits. It is not too much to hope that it may eventually lead to the ability to prevent or arrest degeneration in some cases by reason of early diagnosis and treatment. In fact, as is well known, the prompt resort to medical or surgical measures even now, in cases with beginning degeneration from compression, often enables us to forestall extensive and irreparable degenerative changes. In short, the neurone has made our conceptions of nervous processes clearer, diagnosis more prompt and more exact, and therapy more rational, all to the benefit of the patient and the satisfaction of the physician. That it has not yet led to even greater results is due, not to any fault of the neurone principle, but to our imperfect knowledge of its details."

The author reminded his hearers that some of the present-day conceptions of the attributes of the neurone were foreshadowed more than twenty-five years ago in New York (in its "greater" sense) by Dr. Samuel Spahr Laws, in a thesis presented to the faculty of Bellevue Hospital Medical College for the degree of Doctor in Medicine, January 30, 1874, and quoted extracts from the thesis in support of this statement.

He then dealt with the subject of locomotor ataxia, in regard, first, to its causation, dismissing the direct syphilitic causation theory, as syphilis was active by reason of producing inflammation, while tabes was not primarily an inflammatory disease. The toxine theory causation was considered, and held to be inadequate *per se.* The author then proceeded to consider the possible existence of a "tabetic type of humanity" as a predisposing cause of the disease. This tabetic type, to the author's mind, implied what is ordinarily called a "loose-jointed," non-compact physique, with little tendency to blood or flesh. The subject may be quick and skillful, even an athlete under training, but the tendency to "go to pieces" in the areolai, osseous, muscular, and hæmic, as well as in the sensory spheres, appears to exist. Early arteriosclerosis is often a part of the clinical picture. "Given such a type of patient who acquires syphilis or other chronic toxæmia, added to liability to over-fatigue and exposure, would it not be a wise precaution, having in view the probable greater liability to neurone degeneration," he asks, "to advise precautionary measures respecting occupation, habits, and general nutrition which would tend to prevent the development of that disease?"

Two facts stand out prominently with respect to predisposing causes of tabes, namely (1), the rarity of tabes in the negro and lower races generally, notwithstanding the frequency of syphilis in many of these races; and (2) its rarity in women, and even in prostitutes, who are, of course, peculiarly exposed to syphilis.

These facts of themselves suggest that other factors than syphilis must be preeminent. Looking at some of these other factors from a biological point of view, we obtain perhaps the best foundation for our pathological reasoning.

The evolution of mankind from a four-handed to a two-legged animal, and his assumption of the upright position, while evidence of superiority in the race, has been attended with corresponding weaknesses and difficulties, due apparently to the defective adjustment of organs to their new relations, such as those to which we attribute the frequency of hernia, for instance.

It is evident that in these gradually acquired changes of *posture,* there must not only be a topographical readjustment of organs, but along with it, of necessity, a redistribution of functional activities in the nervous system, consequent upon the upright position. The need for greater delicacy in equilibrium entailed by the upright position and the lessened base of support must of necessity put a greater stress of function upon the muscle-sense neurones of the lower extremities and trunk; and it is these neurones, it will be noted, that are the seat of the earliest degeneration in tabes.

Again, as man advances in civilization and refinement, he is very likely to limit his output of motor effort, while he cannot, and perhaps seldom desires to, lessen his sensory income. Hence, the sensory neurones are more liable to overloading, both from necessity and choice. This is true not only of the ordinary muscle-sense neurones, but likewise of those of some of the special senses—sight, for example. What frequent changes in adjustment, and enormous demands on endurance, must be necessitated in the light-reflex mechanism and the visual tract generally, by the conditions of existence in civilized man, and especially by the great and sudden variations in intensity of light to which these structures must respond, as compared with their requirements in a more primitive state. The actual prolongation of the day by artificial means and the consequent greater number of hours of light adjustment, is another weighty factor to consider.

The practical lesson deduced by the author is the dismissal of the idea of something actively to combat in tabes and the addressing of ourselves vigorously to the obviously needed and rational procedure of taking off functional pressure and feeding the neurones. As the tree with a worm at its root, or which is suffering from drought, manifests its malnutritional state by first shedding its leaves, so in the exhausted or poisoned neurone *the ends die first,* and those ends of processes which traverse the longest distances from the trophic centre—the neurone body—are the first to suffer degenerative disease.

Applying these principles, we must conceive the tabetic degeneration as beginning in the oblongata, and *descending* the posterior column as the process advances in severity. Actual histologic demonstration of the condition of the oblongata in early cases of tabes will throw much-needed light on this problem.

With respect to the peripheral process of the primary sensitive neurone, however, which has been functionally likened to a dendrite by reason of *conducting toward* the neurone body in the spinal ganglion, the degeneration as shown by Batten probably ascends. In other words, as in the case of the tree, before cited, it is the terminal twigs and terminal rootlets that first manifest distress and finally destruction.

As to tabes with preserved knee jerks, the author says that viewing the matter in its neuronic aspect, we must admit the probability that every case of tabes is, in its early period, a "tabes high up." As the disease progresses, however, the descending degeneration in the muscle-sense tract, creeping slowly down the posterior axons with exacerbations and remissions, finally reaches the point in the lumbar cord where the "reflex collaterals" pair off to establish the knee-jerk circuit with the ventral horn neurones. The author has seen a case, in which the knee jerks gradually lessened and finally disappeared one at a time, and he considers many such cases as probably developing ones, while others have coincident degeneration in the pyramidal tracts. In doubtful cases of this kind, Babinski's *phénonème des orteils* is a material aid in distinguishing tabes alone from tabes with pyramidal tract affection. In other words, in testing for the plantar reflex, *flexion of the toes,* especially of the great toe, indicates intact pyramidal tracts; *extension* under the same condition is "pathognomonic" of pyramidal tract lesion. The author has found this a valuable sign.

The author concludes an extremely interesting and valuable paper with a consideration of primary lateral sclerosis, and of combined sclerosis.

Abdominal Section: Some Points in the Management of Difficult Cases. By Dr. L. Grant Baldwin.—The author considers the preparatory measures. He prefers one large dose of calomel, unless contraindicated, to castor oil. In regard to the abdomen, he says, that accepting as a fact the impossibility of sterilizing the abdominal walls he has given up the elaborate and unnecessary scrubbing of the abdomen. "If we cannot render the abdominal walls sterile, then why remove the epidermis by so severe a scrubbing?" To the author's mind this simply produces a good culture field and invites infection. The cases should come to the table with only a final washing with alcohol or ether needed.

"Too much ether" explains, in the author's opinion, many deaths from "shock." He always has from one-sixth to one-fourth of a grain of morphine with from one one-hundred-and-twentieth to one one-hundred-and-fiftieth of a grain of atropine subcutaneously administered fifteen minutes before operation. As to incision, the author prefers as small a one as possible, and advocates through-and-through suture with silkworm gut. He thinks that a large incision for free manipulation is nullified by the use of the packing of the abdomen with gauze to keep the intestines out of the way, and to "wall off" an abscess cavity, and is more than counterbalanced by injury to the intestines from overmuch manipulation. The washing out of the abdomen should be performed from below upward through a long tube passed completely down to the bottom of the pelvis. When drainage is necessary, which is not often, the author prefers to drain through the abdominal opening, using the gauze column. Before removal from the table the patient is given an enema of one quart of normal saline solution, one ounce of whiskey, and from ten to fifteen minims of Squibb's compound solution of opium. For after-treatment, acidulated milk prepared after Dr. H. A. Bunker's formula is recommended. For the bowels, the author's custom is to have the patient take just prior to anæsthesia from one to two ounces of Epsom salts in hot water, and twelve hours after operation, from ten to fifteen grains of calomel in a capsule. This is followed about six hours later by teaspoonful doses of Epsom salts in hot water, regardless of nausea and vomiting. If there is distention of the large intestine, high enemata are used, and not discontinued till gaseous or fæcal movements are secured. The author's preference is for Epsom salts and glycerin. Shock calls for warm applications, the judicious use of morphine, strychnine, sparteine and whiskey; also submammary injections of normal salt solution, a pint or more under each breast.

Philadelphia Medical Journal, October 20, 1900.

The Surgical Management of Umbilical Hernia with Large Ring. By Dr. E. D. Ferguson.—This—the Presidential Address at the meeting of the New York State Medical Association, October 17, 1900—is an able exposition of the subject in question, in which the author gives in full the details of his operative technique in closing large rings. The essential feature of those rings which should be classed as surgically large, is the inability to approximate the borders of the ring by a vertical line of suturing, without placing the parts thus sutured in a considerable and constant state of strain on the sutures. A case is given and the article had best be read in its entirety to be appreciated.

The Germ of Yellow Fever. By Lieutenant-Colonel Charles Smart, U. S. Army.—The author throws grave doubt upon the justice of the $10,000 award to Sanarelli for his claimed discovery of the germ of yellow fever. He believes, with Agramonte, that Sanarelli's *Bacillus icteroides* is no more concerned in the production of yellow fever than are the common colon-bacilli which are frequently found in the blood and viscera of individuals suffering, or dead, from that disease. A letter from Dr. Adolphe Lutz is quoted, who believes that those that report that they have found the bacillus in all cases, and that they can make the diagnosis by the agglutinating action of the blood, are the victims of gross errors of observation. A letter is also given in full, from Dr. George M. Sternberg, to the same effect.

Report of a Case of Tetanus, with Recovery. By Dr. Andrew H. Whitridge.

Report of the Milk Commission of the Philadelphia Pædiatric Society.

Angeioneurotic Œdema of the Salivary Glands. By Dr. James Ely Talley.—In this case, the character of the swelling, the rapidity of its development, the lack of any evidence of salivary calculi, the preceding gastric distress and periodicity, especially when occurring in one who is so subject to urticaria, and is thus dermographic, would seem to indicate a case of angeioneurotic œdema of the salivary glands. The points of special interest are, that the salivary glands are involved rather than the lips, the labia, or some other common seat of election, and that the secondary paresis of the vessels producing a hyperæmia increases tremendously for a time the function of the glands, as shown by the outpouring of saliva.

Two New Pieces of Laboratory Apparatus: Petri Dish Forceps; Exhibition Test Tube Stand. By Mr. Randle C. Rosenberger.

Medical News, October 20, 1900.

Some Remarks on the Pathology and Surgical Treatment of Urinary and Uro-genital Tuberculosis. By Dr.

Samuel Alexander.—Tuberculosis in the male uro-genital tract is similar to tuberculosis in the other organs of the body; but it is, perhaps, more frequently complicated by some form of pus infection. The pathological changes, produced by these pus infections, weaken the tissues, intensify the symptoms, and render both diagnosis and treatment difficult. This form of tuberculosis may be either a secondary infection or an apparently primary infection of hæmic origin. The most common seat of the so-called primary form would seem to be in the epididymis; the author believes, however, that tuberculous epididymitis is usually associated with more or less involvement of the prostate or prostatic portion of the urethra. Tuberculosis of the bladder is always secondary to a primary tuberculosis of the kidneys, or to a primary tuberculosis of the lower uro-genital tract.

When the entire focus of disease can be removed, a cure is possible, but possible only in cases where the general tissue resistance of the patient can be increased and maintained. The importance of an early diagnosis cannot be exaggerated.

Progressive Pernicious Anæmia. By Dr. Alfred Stengel.—In regard to the blood count, the author does not credit the remarkable, sudden improvements in the character of the blood, which certain authors have reported. He believes that the explanation is found in the assumption of an alteration in the distributions of the corpuscles or a reduction in the quantity of the serum. Improvements in the character of the blood to fairly normal condition may, however, actually occur from a restoration of the hæmogenetic function, but such improvements are recognized as more settled by their persistent progressive character.

Treatment of Typhoid Fever. By Dr. Steven Smith Burt.—Simplicity should be our aim in the treatment of typhoid. The personal equation cannot be eliminated; all stereotyped methods are open to criticism as the affection varies greatly with the individual and the environment. We must treat the person rather than the fever.

A sponge bath of one-third alcohol and two-thirds cold water is good, and if this is not sufficient the slush bath may be employed. An actual tub bath is seldom needed. The safest intestinal antiseptic remedies are mild laxatives. Ordinarily, for moving the bowels a rectal injection is of service. For hæmorrhage—ice to the abdomen and powdered opium in one-fourth grain doses every fifteen minutes until controlled. Strychnine, ammonia, alcohol, and ether, are the supporting remedies to be relied on when indicated.

Increasing the Therapeutic Value of Cod-liver Oil by the Addition of Free Iodine and Free Phosphorus. By Dr. Louis J. Lautenbach.—A preparation which the author recommends—oleum morrhuae iodi-phosphoratum—contains in each tablespoonful of the oil, one one-hundredth of a grain of pure free phosphorus, and one-twelfth of a grain of pure free iodine. It is taken before bedtime, followed by a taste of lemon.

Boston Medical and Surgical Journal, October 18, 1900.

Suppurative Pericarditis and its Surgical Treatment. By Dr. Charles B. Porter.—The author believes that pericardotomy is indicated in all cases of pericarditis. Because of the uncertain and varying relations of the pleura, and because of the anterior position of the heart, whenever the pericardial sac is distended by fluid, aspiration of the pericardium is a more dangerous procedure than open incision, when done by skilled hands. Incisions of the pericardium can be done quickly and safely by resection of the fifth costal cartilage, and in many cases under local anæsthesia. In many cases of serous effusion, open incision without puncture will offer less risk and speedier cure than aspiration. The majority of recent operators have followed out the method and detailed technique which the author proposed in 1897.

Hydrotherapy in Pneumonia. By Dr. Simon Baruch.—In hydrotherapy we have the means of meeting all the depreciating conditions which lead to a fatal termination in pneumonia. Resolution is the only condition affected by this treatment. Dr. Baruch is unable to explain, theoretically, the retardation of resolution in fifty per cent. of the cases, except on the same principle as the relapses in typhoid fever after the Brand treatment may be explained, *i. e.*, as more cases escape death, there are more cases to relapse. Each cure demands special study as to baths, though it is well to begin with one of five degrees below the patient's temperature, diminishing two or three degrees at each repetition in four hours until 80° F. is reached. As long as the rectal temperature is above 100° F., cold compresses wrung out of water at 60° F. are wrapped around the chest from the clavicle to the umbilicus. "This produces an irritation of the sensory terminals in the skin, which convey it to the central nervous system, and thence reflect it upon the organs receiving impulses from the latter."

To what Extent does "Rheumatic and Gouty Diathesis" Enter into Traumatic Joints (Sprains and Bruises), Septic and Gonorrhœal Joints, Acute Articular Rheumatism, Neuropathic Joints, Arthritis Deformans (Osteoid, Rheumatoid), as an Ætiological Factor? What is the Scientific Basis for Such a Term? By Dr. William H. Porter.

Septic and Gonorrhœal Joints. By Dr. Charles A. Porter.—The gonococcus, alone, and independent of other organisms, can cause a purulent arthritis; and this occurs not only in acute gonorrhœa, but also in the chronic or latent type. The signs of such chronic infection are often slight and many cases are diagnosticated as articular rheumatism which are really of gonorrhœal origin.

Neuropathic Joints. By Dr. Sidney A. Lord.

Journal of the American Medical Association, October 13, 1900.

Pathology of Malarial Fevers, Structure of the Parasites and Changes in Tissue. By Jesse Lazear, M. D., U. S. Army.—For diagnosis, an examination of the fresh unstained blood is usually sufficient, but for the study of the structure of the parasite, dried and stained specimens must be made. The technique of drying and staining is given in detail. The method of Nocht seems to have the preference in staining. Polychrome-methylene blue is the staining medium, and its special merit is that it brings out the nuclear matter or chromatin distinctly and in a color peculiar to itself.

Then the author considers the different varieties of the malarial parasites as they appear at the various stages of their cycle of development: The tertian parasite, spherical or ring-shaped, consisting of a dense mass of chromatin surrounded by a thin peripheral achromatic zone. Pigment granules, brownish in color on account of their minuteness, begin to appear after several hours, while the protoplasm becomes more irregular in shape as the amœboid movements increase. The chromatin finally loses its granular appearance and becomes arranged in sixteen or eighteen dense homogeneous massses. The red blood corpuscle finally ruptures and disappears and the new-formed segments separate to begin independent existence in other red corpuscles as hosts.

The quartan parasite, similar to the tertian, but differing from it in that the chromatin is not solid, rounded, and homogeneous, but more or less irregular, is next considered. Finally the æstivo-autumnal parasite, which, even at full growth, does not more than one-third fill the corpuscle, is described.

Autopsies should be made as soon after death as possible to obtain material for the study of tissues in malarial fevers. The characteristic pathology is given very completely. The changes which are found most marked are in the spleen, liver, bone-marrow, brain and alimentary canal. The unequal distribution of the parasites in the different organs is considered and the article may be read with profit by those whom the title attracts.

What Amount of Visual Defect Should Disqualify in Railroad Service? By Dr. Frank Allport.—This much-discussed topic is again the subject of a paper, and a statistical report of the eye and ear requirements of railroad employés is given. An inspection of these statistics would lead us to infer that, in this important matter, more unanimity might reasonably be expected from the various railroads. Practical suggestions to this end are given. The essential principle advocated is, that railroad corporations should require a scientific and correct entrance examination of the eyes and ears of those employés who may be in any way concerned with the active operating of trains, or with giving or receiving signals. Such examinations *should never be made by non-professional men.*

Operations for Secondary Cataracts. By Dr. Peter A. Callan.—At least one-third of all cataract extractions require a secondary operation to obtain satisfactory vision, and the author hesitates to operate even if the vision is already $\frac{20}{40}$, provided, of course, that the patient is willing to assume his share of the risk. When vision is $\frac{20}{70}$, the author suggests to the patient the advisability of an operation. It is important to bear in mind that in operating upon the pupillary membranes, we should cut and not attempt to tear them.

Systematic Cleansing of the Nasal Cavities before Operations which Involve Opening of Eyeball. By Dr. J. Lippincott.

A Case of Coloboma of Each Lens without Coloboma of the Iris or Choroid. By Dr. James Moores Ball.

A Study of the Inoculation Theory of Malarial Fever. By Dr. Albert Woldert.—To stamp out the disease in any country, the suggestions of Manson are cited. One patient is a source of infection to a whole locality, wherefore in all cases of malarial fever quinine should be administered for long intervals. Mosquito-proof houses and beds, and culicicides should be used. All larvæ should be destroyed.

The Atrophic Pharynx. By Dr. Ralph W. Leiss.—This condition is not definitely curable, and accuracy in diagnosis of the actual pathologic factors at work is essential.

The Present Status of Our Knowledge Concerning the Bacteriology and Serum Treatment of Diphtheria. By Dr. Samuel E. Allen.

Epithelioma; Report of Two Cases—One of Slow and the Other of Rapid Growth. By Charles J. Whalen, M. D., LL. B.

Facts Regarding Criminal Abortion. By Dr. Denslow Lewis.

The Health and Wealth of Benguet Province, P. I. By Capt. J. C. Minor, M. D.

Cellulitis Succeeding Contusion of Leg—Extensive Sloughing—Skin-grafting—Recovery. By Dr. Henry Sawtell.

October 20, 1900.

State Provision for the Treatment of the Consumptive Poor. By Dr. Benjamin Lee.—A strong article. The only ground on which State charities can be justified is that of self-protection. The foundation and support of hospitals, simply for the relief of suffering and healing of diseases is, from the standpoint of strict political economy and true statesmanship, a flagrant misuse of public funds, and leads to serious abuses. The author demonstrates that consumption *is* a menace to the State, and, that hence it is incumbent upon the State, as a measure of self-protection, to make provision for its treatment. The erection of sanatoria is advocated, and the progress in this regard, at home and abroad, is reviewed.

Some Thoughts on Overcrowding and Tuberculosis. By S. A. Knopf.—Speaking of the tenement house conditions, the author says that we cannot reasonably hope that the "compulsory reporting of all cases of consumption will materially reduce these foci of infection." The impracticability of such measures is evident at once, to one familiar with the conditions. The only hope is to do away with the overcrowded, dark, dreary, dirty tenements of our cities, which foster intemperance, immorality and crime, and which predispose strongly to tuberculosis and other diseases. Overcrowding in asylums, prisons, almshouses, ships, factories, and workshops, should be regulated by law and submitted to sanitary inspection.

Climate for Tuberculosis. By Dr. Norman Bridge.

Tuberculosis—Its Zoologic and Geographic Distribution. By Dr. W. A. Evans.—Every tuberculous animal is a centre for the maintenance and spread of tuberculosis. Animal, and even aviary tuberculosis, though not identical with, is related to, human tuberculosis. The translation of human into animal and aviary tuberculosis is possible. Inhalation and ingestion are the most frequent means of its spread from man to man, from man to animals, and from animals to man. The organism's extracorporeal, or saprophytic, life is of secondary importance—only an infinitesimal number live outside the bodies of animals. There is no reason to believe that the disease will ultimately disappear by reason of a general immunity. The decrease in the death rate from tuberculosis is more apparent than real.

Tuberculosis in Pennsylvania. By Dr. Guy Hinsdale.

Municipal Regulation of the Spitting Habit. By Dr. Elmer B. Borland.

Hereditary Factors in Tuberculosis. By Dr. J. M. Anders.

United States General Hospital for Tuberculosis at Fort Bayard, N. M. By Major D. M. Appel, surgeon, U. S. Army.

Tuberculosis and Insurance. By Dr. E. Fletcher Ingalls.

The Advantages of the Sanitarium Treatment of Tuberculosis when Change of Climate is not Possible. By Dr. E. S. Oliver.

The Sanitarium for Consumptive Sailors Established by the U. S. Marine-Hospital Service at Fort Stanton, N. M. By P. A. Surgeon J. O. Cobb.

The Diagnosis of Pulmonary Tuberculosis. By Dr. Robert H. Babcock.

Notification of Tuberculosis. By Dr. Arthur R. Reynolds.—Notification means policing, quarantine, and force through public officials. Education means a reduction of the disease by intelligence and natural methods, and it teaches that the responsibility rests ultimately on the individual, who will be as zealous for the enforcement of preventive measures, when he knows and understands, as will any public employé.

Necessity of Examination of the Sputum in the Diagnosis of Pulmonary Tuberculosis. By Dr. C. M. Wood.

The Right of the State to Provide Hospitals. By Finley Scruggs, LL. B.

The Treatment of Pulmonary Tuberculosis. By Dr. John M. Lisle.

Tuberculosis—Abstracts from the Proceedings of the Congress for the Suppression of Tuberculosis, Held in Berlin, May, 1899.

Medical Record, October 20, 1900.

Some Conservative Jottings Apropos of Spinal Anæsthesia. By Dr. J. Leonard Corning.—In this article the author effectually demonstrates, by reference to his previous writings, that he is justified in claiming, not only priority in principle, but priority in method also. He insists that all his work in the field of medullary narcosis was done and published years before any one else had entered it.

Commenting on the technique, he says that he prefers to employ a short, delicate trocar to penetrate the thick skin of the back, subsequently passing the thin hypodermic needle through the opening of the trocar. This needle should be of gold or platinum, from three inches and a half to four inches in length, and the bevel of the point should be short. There should be a small steel nut, sliding freely upon the needle and fixable at any point of its length by a set screw. When the needle is finally within the spinal canal, this nut is pressed against the skin and fixed in place so as to prevent any further entrance of the needle. The needle is left *in situ* until anæsthesia supervenes, and is then withdrawn. The most rigid asepsis is enjoined. The author prefers to puncture between the second and third lumbar vertebræ, as this causes the anæsthetic to arrive at the cord more quickly, and in a more concentrated condition than when introduced lower down. There has been a singular immunity from fatality until now—but this will not go on indefinitely, and there should be a concerted effort by the invocation of every known precaution to keep the mortality as low as possible.

The Treatment of Necrosis of the Entire Shaft of a Long Bone, with Report of a Case. By Dr. J. Shelton Horsley.—Acute osteo-myelitis is responsible for the largest portion of diseases of the shafts of long bones. Its pathology is definite and typical; its diagnosis is frequently confounded with that of rheumatism or typhoid fever. The process of repair after operation is not so well defined as the pathological course that leads to the necrosis, and, occasionally, bone will not be reproduced, either from whatever remaining bone there may be left, or from the periosteum. This is surprising, but in the vast majority of cases the periosteum alone is capable of reproducing the entire shaft of a long bone when reproduction is at all possible.

In the author's case—a girl aged one year and eight months—a diagnosis was made of necrosis of the shaft of the tibia. Upon operation, a thin layer of soft cheesy bone was removed from the middle and lower thirds, and a Volkmann spoon was energetically used. At the lower part of the leg there was left but a small strip of bone that was apparently healthy. After the operation, two small sinuses existed for ten months, but finally closed. Bone reproduction progressed most favorably, and recovery was complete with the exception of a slight bowing of the tibia which does not interfere with its function.

Treatment of the Patient during the Weeks Previous to Expected Confinement. By Dr. Edward P. Davis.—The phenomena of the preparatory changes that take place in the pregnant woman are considered, after which the more practical portion of the paper is reached.

The condition of the excretory processes should be ascertained chemically so far as possible, and the clinical symptoms of toxæmia should be studied. The urine, its quantity, amount of solid matter, presence or absence of kidney *débris,* and, secondarily, the presence or absence of serum albumin and of lactose, should be ascertained.

The diet should be, as nearly as possible, milk, fruit, and bread. Buttermilk is good, meat once a day. A quart of water daily is of advantage. Salines should be selected for their freedom from potassium. Calomel is the drug of greatest efficacy in the throwing out of solid waste in the body. A case illustrative of the methods of use in the treatment of toxæmia is given. Voluntary exercises on the part of the mother to facilitate the descent of the fœtus are mentioned, as is also the arrangement of the clothing.

A physician loses a great opportunity, not only to enhance the welfare of his patient, but to increase his own knowledge and skill, if he neglects this period of gestation.

Some Applications of Static Electricity in Dermatology. By Dr. Henry G. Piffard.

Observations on the Surgery of the Gall Tracts. By Dr. William Jones.—The author wishes to emphasize (1) the diagnostic value of the point of maximum tenderness on pressure which is over the gall bladder, at or near the costal margin—this point in disease of the gall tracts corresponds in importance with McBurney's point in disease of the appendix; (2) the diagnostic value of the presence of bile in the urine excreted during or after a very brief obstruction of the common duct; (3) disease of the gall tracts is of very common occurrence, and is liable to be mistaken for other troubles which it closely resembles.

The Soldier's Ration in the Tropics—Its Use and its Abuse. By Dr. Louis L. Seaman.

British Medical Journal, October 13, 1900.

The Training of Body and Mind for the Profession of Medicine. By Sir J. Williams, Bart., M. D.

A Discussion on the Treatment of Internal Hæmorrhages. By Dr. W. G. Smith and others.—The first speaker reviewed the main sources of hæmorrhage (capillary, venous and arterial) and the processes by which it can be arrested. Internal or remote astringents may be grouped under three heads, namely (*a*) free acids, chiefly sulphuric and tannic acids; (*b*) metallic salts, chiefly of iron, silver, lead and copper; (*c*) ergot of rye. The use of ergot as a remote astringent is protested against, and various authorities are quoted to show that it has no power to check hæmorrhage. In treating a case of urgent hæmoptysis, the following advice is given: 1. Reassure the patient and his friends as to there being no immediate danger. 2. Avoid irritation of the gastric ends of the vagus nerve, by withholding cold drinks or fragments of ice. Allow on the contrary warm mucilaginous drinks. 3. Keep the patient absolutely quiet in mind and body. 4. Administer morphine hypodermically. 5. Relieve the bowels by magnesium sulphate or calomel. 6. Let the diet be simple and nutritious, reduce the amount of fluid and give no alcohol. (The use of suprarenal extract and the subcutaneous injection of gelatin to increase the coagulability of the blood, were also advocated by other speakers.)

A Contribution to the Study of the Vascular Mechanism of the Testis. By Dr. W. E. Dixon.—In this research the plethysmograph has been employed to record the vasomotor changes of the testis. The conclusion is reached that the testis is supplied with vasomotor nerves, that it undergoes changes in volume, passively with the blood pressure, and actively as a direct result of vasomotor activity. Among the drugs inducing vaso-dilatation of the testis are cantharidin, valerian, gold and spermin.

The Chemistry of the Jaborandi Alkaloids. By H. A. D. Jowett, D. Sc.

The Pharmacology of the Jaborandi Alkaloids. By Dr. C. R. Marshall.

Remarks on Extractum Jaborandi Liquidum. By H. A. D. Jowett, D. Sc., and Dr. C. R. Marshall.

Treatment of Asthma and Hay Fever. By E. Kingscote, M. B.—Asthma consists of spasmodic contractions of the involuntary muscles surrounding the bronchioles, and of the over-action of the voluntary muscles of respiration in their efforts to overcome these contractions. There are three constant factors in asthma of long standing: Cardiac dilatation, acute vesicular emphysema and chronic congestion of the liver. These conditions must be dispersed in order to cure the patient. Treatment: Having ascertained the source of the vagus or sympathetic irritation, endeavor to remove it. If there is a plug of wax in the ear or polypus in the nose, remove it; if bronchitis, hepatic congestion, dyspepsia, uterine discharge are present adopt appropriate treatment. Cardiac dilatation may be reduced by the Schott treatment, while emphysema may be lessened by the breathing exercises of Dr. H. Campbell. As nearly all the cases suffer from sub-oxydation of the blood and anæmia, inhalations of pure oxygen should be given several times a day, and peptonate of iron in suitable doses.

A Discussion on Serumtherapy. By T. J. Bokenham and others.—The first speaker discusses our present views as to the nature and production of immunity, and accepts Ehrlich's theory as the working hypothesis which will fit in with the greatest number of observed facts. Ehrlich's view is given in full, and the statement is made that serumtherapy is a treatment based on sound scientific principles; that the specificity of a given serum is absolute; that the apparent benefit which has been said to follow the use of a specific serum in a non-corresponding affection may be due to the alexines present in all serums, but certainly not to any specific element which is absent in normal serum. Antidiphtheritic serum has certainly fulfilled our expectations. As an immunizing agent, the speaker's experience is altogether in its favor. As to antistreptococcous and antipneumococcous serums, our knowledge is as yet incomplete and unsatisfactory. (All those taking part in the discussion spoke in favor of serumtherapy, especially as regarded antidiphtheritic serum.)

A Discussion on Diet in the Treatment of Disease. By Dr. H. Campbell and others.—The first speaker spoke of the value of stimulating and fibrous substances in the food. Where such substances were absent, the softness of the food led to defective mastication, dental caries and adenoids.

The Treatment of Gouty Eczema. By Dr. G. J. K. Martyn.—The factors in the production of eczema in gouty subjects are briefly those which bring about a gouty condition of the blood, or produce irritation, or hyperamia of the skin. In treating the condition, the first two factors must be eliminated, the third encouraged. The underclothing worn is most important; wool is good if it can be borne; cotton in the cellular woven form is more rational. The extremities must be protected against cold, warm mittens and socks being worn. Climate is of great importance, the seashore being the worst of all localities. Certain articles of diet must be altogether withheld: alcohol, fruit, and stimulating foods. The drugs usually given in gout (colchicum, piperazine, etc.) are of no value as compared with those which benefit dyspepsia and increase the alkalinity of the blood, such as bismuth, the alkalies and the bromides. As external remedies, soothing lotions of lead and opium may be used, followed by a dusting powder of carbonate of magnesium and fullers' earth. In the very aged the treatment must, as a rule, be simply palliative.

Contribution to Our Knowledge of Proteid Metabolism in Children. By Dr. F. W. Tunnicliffe and O. Rosenheim, Ph. D.—The authors sum up as follows:

1. Milk-proteid (plasmon) is capable of replacing meat as a nitrogenous food in the mixed diet of children according to its nitrogen percentage.
2. A greater increase in body weight took place during the milk-proteid periods in all three cases than during the meat periods.
3. The phosphorus of the milk-proteid is capable of being assimilated and retained in the body.

The Medicinal and Dietetic Treatment of Heart Failure in the Aged. By Dr. F. W. F. Ross.—The author reviews the various causes of this affection, and calls attention to the great value of strophanthus as a direct cardiac tonic in these cases. Digitalis depresses the reflex action of the heart, is irregular in results, is cumulative, is irritating to the alimentary canal, and induces suppression of urine in the aged. Strophanthus has none of these disadvantages. Mercury is also useful in cases of senile heart, as recommended by Stokes and others. The diet should not consist entirely of milk and "slops," but should contain meat in the form of myosin, extracted from raw minced steak with sodium chloride solution, and then curdled out. This is tasteless and may be put into puddings, etc.

Some Work Bearing upon the Preventive Treatment of Oxalate of Lime, Gravel, and Calculus. By Dr. L. Scott.—The author's experiments go to show that the deposition of crystals of oxalic of lime in the urine is markedly retarded by the administration of sulphate of magnesium (40 gr.) in the afternoon and at bedtime. It may be given in a well-diluted solution, or combined with some mild diuretic such as citrate of potassium.

A Discussion on the Therapeutics of Open Air. By Dr. F. W. Burton-Fanning and others.

The Open Air Treatment in Ireland. By Dr. F. H. Sinclair.

Remarks on the Treatment of Town Phthisicals in the Country. By H. de C. Woodcock, L. R. C. P. Ed.

The Subcutaneous Administration of Oxygen. By Dr. W. Ewart.—A note on the hypodermic injection of oxygen gas and of solutions of peroxide of hydrogen. The subcutaneous method is the only reliable means of insuring that the oxygen administered is taken into the system. The observations show that we may set up a local oxygen emphysema of the areolar tissue without any evil result, and that the gas will be gradually absorbed, though the process is a slow one.

A Discussion on the Treatment of Lacrymal Obstructions. By G. A. Berry, M. B., and others.

Dacryocystitis Aggravans, Resembling Tumor of the Face. By K. Scott, M. B.—(See abstract of the *Lancet* for October 13, 1900, in this number of the *Journal.*)

A Case of Leucosarcoma of the Iris, Showing Fibrohyaline Changes. By W. W. Griffin, F. R. C. S.

Cerebral Tumor with Optic Neuritis. By Dr. E. Clarke.

Some Forms of Optic Nerve Disease, Probably of Sympathetic Origin. By Dr. F. Fergus.

Lancet, October 13, 1900.

An Introductory Address. By Sir J. Williams, Bart, M. D.

Some Problems of Tropical Medicine. By Sir W. MacGregor. (See abstract of the *British Medical Journal* for October 6, 1900, in the *Journal* for October 20, 1900.)

The Romance of Surgery. By J. H. Morgan, F. R. C. S.

Notes on Thirty-one Cases of Diphtheria Treated with Antitoxine. By J. Mackenzie, L. R. C. P.—The cases of diphtheria reported in this article consist of the most serious cases occurring in the writer's private practice. He divides them into seven groups, as follows:

1. Three cases of laryngeal diphtheria, the lesion beginning in the larynx. All were of exceptional severity, yet all recovered under the use of antitoxine, 1,500 units being used in each case.

2. Six cases of pharyngeal diphtheria gradually extending to the larynx. Four cases recovered. Of the two fatal cases, one (an adult) died before the antitoxine could be administered; in the other case, the disease was complicated with broncho-pneumonia, which was the cause of death.

3. Three cases of laryngeal diphtheria in which the lesion was confined to the larynx. Two of the cases recovered, but the third (an infant aged five months) died twenty-four hours after the second injection.

4. Nine cases of pharyngeal diphtheria without involvement of the larynx. In every case the administration of 1,500 units of antitoxine on the first day of the disease, was followed by prompt improvement and rapid recovery.

5. Six cases of post-scarlatinal diphtheria. In these cases the exudation generally begins about the second week of illness and is very extensive, covering the sides and posterior wall of the pharynx, the tonsils, the uvula, the palate, and the nasal passages. The involvement of the nasal passages is more common than in ordinary cases. Two injections of antitoxine, each of 1,500 units, were given at eight hours' interval as the cases were very severe. Though the antitoxine led gradually to improvement, yet the change was not so immediate as in uncomplicated diphtheria. In one case an abscess formed at the point of injection.

6. Three cases (two of acute catarrhal laryngitis and one of membranous croup) in which serum was given for diagnostic purposes. Although a piece of membrane was expelled from the throat of the third patient, the author holds the disease to have been non-diphtheritic, for the reason that no permanent improvement followed the use of the antitoxine. There was the usual daily remission, with a return of stenosis at night. Microscopic examination was negative.

7. Two cases of diphtheria of the conjunctiva. Both occurred in patients with faucial diphtheria, and the administration of antitoxine was followed by prompt improvement.

Dacryocystitis Aggravans Resembling Tumor of the Face. By K. Scott, M. B.—The author reports a case of dacryocystitis in a woman aged 75, where the swelling on the left side was so great as to suggest a tumor of the face. On incising the tumor, a quantity of thick pus escaped, and the swelling collapsed and disappeared. The lacrymal duct was kept open and the cavity washed out with a solution of cyanide of mercury, the patient making a good recovery.

Eighteen Consecutive Cases of Abdominal Hysterectomy: Technique and Results. By Dr. A. A. Warden.—The cases described by the author illustrate the importance and safety of the operative technique followed by Dr. Doyen, of Paris. Hysterectomy was performed in nine cases for voluminous fibroids, in three cases for fibroid with salpingitis, in two cases for cancer, and in four cases for various other affections. The author describes in detail the successive steps of Doyen's technique, carefully explaining the various special manœuvres. In brief, the technique is as follows: The patient is placed in the Trendelenburg position. The posterior vaginal cul-de-sac is opened from the abdomen by scissors cutting upon curved forceps introduced *per vaginam.* The cervix is then easily caught by its posterior lip and freed by cuts of the scissors to right and left, until completely circumcised. It is then drawn well up, separating itself from the bladder. The two broad ligaments are then isolated and cut. The success and safety of the operation lie in its simplicity and rapidity, the complete closure of the peritoneal cavity, and the extra-peritoneal treatment of the pedicles of the removed adnexa.

Bilateral Resection of the Superior Cervical Ganglion of the Sympathetic for Glaucoma. By H. W. Dodd, F. R. C. S.

Two Illustrative Cases of Sinus Pyæmia, with Unusual Results. By Dr. J. Kerr.—The mechanism of these cases is usually a chronic suppurative otitis with extension to the mastoid antrum and cells, which discharge freely until suddenly, either from increased thickening of the mucous membrane, or from slow thickening of the bone, the antral passage becomes blocked and discharge ceases. The first signal of danger—pain—follows, with violent inflammation from the retained pus. The usual route leading to sigmoid sinus pyæmia, is perforation from the antrum into the knee of the fossa. The writer reports two cases, one of which proved fatal. The treatment followed in both cases was by operative measures and the use of antistreptococcous serum.

Indépendence médicale, October 3, 1900.

Three Cases of Hæmorrhage at the End of Pregnancy.—M. Maygrier reports these cases, each resulting from a different cause. One was due to a marginal insertion of the placenta, the second to a premature separation of the placenta, and the third apparently to a velamentous insertion of the umbilical cord.

Gazette hebdomadaire de médecine et de chirurgie, October 4, 1900.

Acute Mercurial Poisoning.—M. Patori reports the case of a syphilitic prostitute who was treated for a pustular syphilide by a lotion of bichloride of mercury of the strength of 1 to 1,000. The young woman was attacked with typical hydrargyrism and presented also an almost complete paralysis of the arms and legs. The reflexes were all maintained and were sightly exaggerated. There was no reaction of degeneration. The nervous symptoms were assumed to be of hysterical character and quickly disappeared after treatment by suggestion was begun.

October 7, 1900.

Treatment of Functional Impotence and Deformities Following Infantile Paralysis.—M. Maurice Péraire and M. F. Mally say that good results are obtained by the surgical union of a healthy muscle with a paralyzed one. This is accomplished by splitting the tendon of the paralyzed muscle and suturing one end to a normal muscle in the immediate vicinity. Rigid asepsis is required and the limb must be subsequently held in a favorable position. The operation is indicated in the various forms of clubfoot as well. No portion of any muscle is sacrificed by the operation. The functional result is immediately obtained and the amelioration of position remains permanent. The less extensive the paralysis, the more satisfactory are the results. The arm offers better ultimate success than the leg.

The Plague in Glasgow. By M. V. Pechère.

Presse médicale, September 26, 1900.

The Operative Treatment of Prostatic Hypertrophy.—M. Félix Legneu says that there are three recognized methods—suprapubic drainage, removal of the testicles, and operations which seek to modify the prostate directly by section or by suppression of the obstacle. He condemns the first method as substituting one infirmity for another, and says it is to be resorted to only as an extreme measure or as one intended to be palliative. Castration has as a drawback the cosmetic defect, while the effects are apt to be slow and are by no means certain. The author favors the operation of subpubic prostatectomy. When the lateral lobes are involved, the perineal route offers a larger space for work, but the operation is no easier. He believes that total prostatectomy will be the operation of the future.

The Dental Treatment of Syphilis.—M. Bruneau believes that greater care should be taken of the teeth during the treatment of syphilis. He speaks especially of the effect of mercury upon the teeth and the necessity of careful scrutiny of them during the period of mercurial treatment.

October 3, 1900.

Experimental Tissue Repair. By M. Paul Carnot.

Intradermic Suture.—M. E. Juvara describes his method of intradermic, or subcuticular, suture which is intended to diminish unsightly scars. The technique does not differ from those now in use. The author advises that in long or laborious operations it be not attempted.

October 6, 1900.

The Eruption of Varicella.—M. Léon Cerf points out the elements of diagnosis between varicella and other eruptive diseases. There is little new in what he writes, but he adds that varicella is often preceded by a scarlatiniform rash which may lead to some confusion. The author emphasizes the fact, however, that true scarlatina is always followed by desquamation, while the scarlatiniform rash never does.

Asthmatic Gout.—M. L. Brodier and M. Durand-Viel report a case of gout accompanied by asthma and terminating fatally. They make the point that there is a form of gout which attacks the cardiac plexus and thus represents the equivalent of an attack of articular gout with which it may, however, alternate. The patient had a contracted kidney which the authors believe to have been ætiologically responsible for the gout.

Journal des praticiens, October 6, 1900.

Arthritism and its Treatment.—M. Fernand Cantru concludes an elaborate article as follows: 1. There is frequently a deficient acidity, due in great measure to an excessive deposit of phosphoric acid, of nervous origin, or to a defective assimilation of the acid phosphates (disturbances of alimentation), or to defective action of the liver. 2. This results in an exaggerated alkalinization of the blood containing the phosphate of calcium and the insoluble magnesium salts. When these are eliminated, phosphaturia is produced, or, if they are deposited in different organs, they give rise to the manifestations of arthritism. 3. The remedy lies in the administration of phosphoric acid and the acid phosphates in doses much larger than these are usually given. The acid may be used in doses of from thirty grains to three drachms and a half daily. 4. If the defective acidity is of hepatic origin, small doses of the bicarbonate of sodium give good results. 5. "Constitutional," or "essential," hyperacidity is rarer than is commonly believed. These cases frequently show hypacidity at the moment of their giving rise to arthritic symptoms.

Province médicale, October 6, 1900.

Recurrent Pneumonia with Facial Herpes.—M. Charles André reports a case of a man who suffered from double pneumonia with a general infection, and after his recovery had a renewal of pneumonia with the appearance of a confluent herpes upon the face. The author states that labial herpes is seen in from thirty to forty per cent. of cases of pneumonia. No bacteriological examination of the serum of the vesicles of the face was made.

Surgical Treatment of Cancer of the Uterus.—M. G. Richelot says that vaginal hysterectomy is to be preferred to the abdominal route. In the case of a movable uterus with a well-circumscribed cancer the mortality is almost zero. From ten to twenty of the cases remain permanently cured. Abdominal hysterectomy gives four times as great a mortality. The purpose of surgical intervention is to prevent the spread of the disease or to be palliative in effect. He states, in conclusion, this formula: "Operate in good time if possible; be contented with a little."

Medicinisch-chirurgisches Central-Blatt, October 5, 1900.

Inflammation of the Gall-bladder and Resultant Gastro-enteric Disturbance.—Professor Wilhelm Fleiner has found most frequently in inflamed gall-bladders the *Bacterium coli,* next streptococci and staphylococci. Every grade of virulence was observed, from a serous cholecystitis to a gangrenous one. Any form of gall-bladder inflammation may, by the circulatory disturbance or bacterial influence, evoke ulcers of the gastro-intestinal tract which may perforate. He has seen one case of peripyloritis which was directly due to the presence of cholecystitis. (*To be continued.*)

Experimental Therapeutics (*concluded*). By Professor Pawloff.

Wiener klinische Rundschau, September 30, 1900.

Casuistic Contributions to Abdominal Surgery.—Dr. W. Kopfstein reports, in this instalment, cases of valvulus with enteropexy, laceration of the small intestine with beginning purulent peritonitis, recovery, and perforative peritonitis, recovery. (*To be continued.*)

The Practical Significance of Sympathetic Irritation.—Dr. Bäck discusses this question. He can find no points on which one can base a positive diagnosis between a sympathetic ophthalmia and one starting *de novo*. He urges the enucleation of an eye which is the seat of the primary cyclitis, if the other eye shows signs of irritation which do not disappear after cocaine instillations have been practised for three days. The main point, the author insists, is that the preservation of ever so many diseased bulbs will not prevent the occasional loss of a sound eye by sympathetic irritation.

The Prophylaxis and Treatment of Tuberculosis. By Dr. Alexander R. von Weismayr. (*To be continued.*)

Münchener medicinische Wochenschrift, October 2, 1900.

The Position of the Stomach in Chlorotic Persons.—Dr. Otto Rostoski has examined a large number of chlorotic women, and concludes that it is by no means the case that gastroptosis is a regular phenomenon of the disease or is to be regarded as a causative factor of chlorosis. Gastroptosis was present in only twenty-six per cent. of his cases. Corsets are able to produce a dislocation of the stomach even by the fourteenth or fifteenth year. All his patients who presented gastroptosis had worn corsets from early girlhood. He points out also that the gaseous distention of the stomach is apt to give rise to error in conclusion, especially when patients have stiff abdominal walls.

Purpura Hæmorrhagica.—Dr. Nehrkorn, reporting a case, points out the similarity of its course to that of an acute infectious disease—the rapid course, the widespread furunculosis, the severe bleeding from the mucous membranes, all pointed to this origin. Variola was, however, easily excluded. The author thinks his case had its origin in a change in the blood or blood-vessels. There was a striking narrowing of the aorta.

A Pure Case of Hysterical Fever.—Dr. E. Wormser and Mr. Robert Bing report such a case. (*To be continued.*)

Congenital Fissure of the Sternum Examined with a Fluorescent Screen. By Dr. von Criegern.

The Treatment of Spina Bifida.—Dr. C. Hennemann reports the successful treatment of a case by aseptic injections of Lugol's solution.

The Operative Treatment of Habitual Dislocation of the Shoulder.—Dr. Joseph Müller says that these general considerations are to be applied to the surgical treatment of this condition: Diminution of the dilated capsule with intact osseous structures; resection of the head of the humerus when the bones are diseased.

The Influence of Petroleum upon the Diphtheria Bacillus.—Dr. J. Papasotirin has shown *in vitro* that petroleum has no influence as a germicide upon the diphtheria bacillus; hence, recovery from diphtheria by the use of petroleum sprays or applications is not due to its bactericidal influence.

Chronic Otitis Media. By Dr. Ernest Leubert.

Klinisch-therapeutische Wochenschrift, October 7, 1900.

Vaccinia of the Eye.—Professor Laqueur records the case of a man who presented the picture of a very severe conjunctivitis and blepharitis. It was shown that he had frequently attended his boy whose arm had been vaccinated, without subsequently washing his hands. Bacteriological examination showed the presence of Czaplewski's *Staphylococcus quadrigeminus* and Levy and Fickler's *Corynebacterium lymphæ vaccinalis*, both of which are constantly found in vaccine lymph. The treatment consisted of irrigation with boric acid and dusting with iodoform. The result was excellent.

Use of Widely Stretched Drainage Tubes.—Dr. Carl Donati concludes his elaborate paper by saying: 1. The use of these drainage tubes is recommended for the dilatation of natural channels as well as to prevent the premature closing of fistulæ or fistulous tracts. 2. When the œsophagus is subject to cicatricial stenosis, the method is not only free from danger, but is beneficial and prepares the way for later dilatation by ordinary bougies. 3. In cancerous stenosis of the œsophagus when gastrostomy is contraindicated or is refused by the patient, this method offers a safe means of continuing to nourish the patient. 4. If a stenosis of the œsophagus is no longer permeable, gastrostomy is indicated, as it is a well-known fact that such stenoses become permeable after the operation. To prevent decubitus in the neighborhood of the cricoid cartilage, the "permanent" sound must not be allowed to remain too long.

Potatoes as Food in Diabetes Mellitus.—Professor A. Mossé recommends the use of potatoes as a steady article of diet in diabetes mellitus. He finds that they bring about an amelioration of the general condition and in the amount of sugar excreted. A return to bread, however, at once reestablishes the previous condition.

Berliner klinische Wochenschrift, September 24, 1900.

The Rôle of Fixed Cells in Inflammation (*continued article*). By Professor P. Baumgarten.

Symptomatology of Facial Paralysis.—Dr. P. Mohr finds that Oppenheim's dictum, that the paralyzed facial muscles are highly irritable to the electric current, is true. He ascribes it to the new nerve fibres which are found in the paralyzed muscles, as well as to the regeneration of the nerves.

Medical Supervision of Obesity Cures. By Professor E. Heinrich Kisch.

Cupping in Cutaneous Dropsy.—Professor K. Miura has devised a cup of glass by means of which fluid may be withdrawn from the subcutaneous tissues affected by dropsy.

Physiology and Pathology of Secretion of Bile. By Dr. Albu (*to be continued*).

Exclusive Rectal Feeding in Acute Appendicitis.—Dr. A. J. Ochsner advises that nourishment be given only by the rectum during the acute stage of appendicitis, to prevent peristalsis and consequent irritation of the cæcum and its environment. The author believes that this method of treatment enhances the patient's opportunity for recovery by the rest given to the intestines. He says it almost always suffices to carry the patient safely over an acute attack. If vomiting is present, gastric lavage will usually quiet it.

Centralblatt für Chirurgie, September 29, 1900.

Principle of Indirect Sounding.—Dr. F. Kuhn has devised a series of sounds for the easy probing of injured organs or cavities. They consist of spiral instruments which are always covered with a spiral tube fitting closely yet rendering the instrument so soft that it is not injurious. The sounds are simultaneously stiff and soft and can be employed in any cavity where either of these qualities is sought in a sound.

Centralblatt für Gynäkologie, September 29, 1900.

Spontaneous, Complete Rupture of the Uterus.—Dr. K. J. F. Baur reports the case of a young woman of twenty-five years of age who was in labor for twenty-four hours when she suddenly went into collapse. Rupture of the uterus was diagnosticated. On account of the wretched condition of the patient, no operation was undertaken, but the tear was simply packed with iodoform gauze, the abdomen was firmly compressed by a binder, and a saline infusion was given. After a few days of severe illness, the patient made an excellent recovery.

Deutsche Aerzte-Zeitung, October 1, 1900.

The "Hæmophiliac Knee."—Professor Tillman, in reporting a case of effusion of blood into a knee-joint, says that this possibility must always be considered when there is repeated effusion into this joint after an injury. If the patient is a hæmophiliac or comes from a family of bleeders, it must be especially considered. The first effusion often heals quickly, but later ones disappear more slowly and the ultimate result may be thickening of the capsule and contractures. The condition is easy to distinguish from tuberculosis. There is usually little pain.

Microscopic Study of Hæmoglobin Crystals and their Derivatives. By Professor R. Kobert (*concluded*).

Bicycling from the Medical Standpoint. By Dr. Fürbringer (*concluded*).

Medicinische Woche, October 1, 1900.

Prevention of the Plague (*continued article*). By Dr. J. Loewenthal.

Iodine in the Treatment of Syphilis.—Dr. P. Meissner has used iodalbacid in forty-seven cases and is very well pleased with the result. He has seen no iodism result from the drug. It is superior, in his judgment, to the inorganic salts of iodine, and is to be preferred to them unless energetic and rapid action is sought. He does not regard the reaction to iodine as an infallible sign of syphilitic disease. The value of the iodine salts in syphilis is only to be sought when cell proliferation is present. Iodine alone is never sufficient to bring about a cure of syphilitic disease.

Gazzetta degli ospedali e delle cliniche, September 23, 1900.

Concerning Intermediate Nitrogenous Metabolism and Uropoiesis. By Dr. G. Ascoli.

Injections of Virulent and Sterilized Cultures into the Spleen, into the Liver, and into the Blood. By Dr. N. de Dominicis.

The Most Important Pathologic Features of Progressive Pernicious Anæmia, with a Note Concerning the Changes in the Sympathetic. By Dr. G. Vincenzo. —The case reported here shows the alterations in the sympathetic nervous system which take place in pernicious anæmia. On microscopic examination, the marrow of the bones showed few fat cells, many white blood cells, and a moderate number of red cells. Some of the white cells were large with several nuclei, and some were three or four times the normal size. In the fresh specimens there were a few nucleated red cells and a few eosinophilous cells. The cœliac and superior cervical sympathetic ganglions were examined microscopically after having been stained by Nissl's method. The nerve cells were found profoundly altered, in fact, in most of them the nucleus was either no longer visible, or cloudy, deformed, and displaced towards the periphery of the cell. In many cells, there was a granular pigment scattered through the protoplasm in the form of yellowish-brown refractile granules. In other places the protoplasm was found in a condition of fatty degeneration. In places, the cell body was but very faintly visible, and the nerve-processes indistinct, atrophied, and in some cases fatty. In regard to the question whether these changes are the cause or the effect of the anæmia, the writer says that no definite answer can as yet be given. In the present case, the changes in the sympathetic were probably older than the anæmia, and therefore not a result of the latter. Further investigations will no doubt solve this question.

Malarial Ascites. By Dr. Aristide Muratori.—The patient was a woman aged fifty-two years who had been suffering from chronic malarial cachexia for some time. The effusion into the peritonæum was due to a perisplenitis.

Suppurating Echinococcus Cysts of the Liver. By Dr. A. Balduzzi.

Inguinal Hernia Complicated with Retention of the Testicle in Relation to Surgery and Legal Medicine. By Dr. S. Loprione.

A New Treatment for Sciatica. By Dr. Alessandro Ghetti.—This treatment consists of deep injections of salophen. A solution of this drug, containing one gramme (15 grains) in ten cubic centimetres (2.5 drachms) of sterile, slightly alkaline water was prepared, and in injecting the method of Kuhn (deep injections of antipyrine) was employed. The injections were repeated on alternate days and the patient kept absolutely quiet. After the sixth *séance* the pain was considerably diminished, and after the eleventh it disappeared completely. After the fifteenth injection the patient was told to rise and to walk about a little. After thirty injections the patient was completely cured. Fourteen months later the limbs presented very slight differences in circumference attributable to a certain degree of atrophy from disuse during the illness. In view of this favorable result in two cases of chronic sciatica, the author concludes that it is a specific in this form of neuritis.

The Therapeutic Uses of Gelatin Solutions. By Dr. S. Theresi.—The writer reports a case of Werlhof's disease and one of enterocolitis in which he used gelatin solutions with some success. In the first case, he used the technique described by Pensuti: A solution of Merck's golden label gelatin, 30 per cent., is filtered into a receptacle, and kept at 100° C. by contact with steam. One centigramme (one-sixteenth grain) of carbolic acid is then added to each cubic centimetre (fifteen drops) of the solution, and three centimetres are injected with a hypodermatic syringe into the muscular masses of the gluteal region. In the case of Werlhof's disease after three days the hæmorrhages in the gums and in the skin began to diminish, and disappeared completely in nine days. The injections were given two or three times a day. In the case of enterocolitis, he used two enemas daily containing a five-per-cent. gelatin solution and, in addition, the intramuscular injections according to the method of Pensuti. Improvement was noticed on the second day, and on the twelfth day the patient was completely cured. The writer's conclusions are as follows: Solutions of gelatin are absorbed by the blood and increase its coagulability. They may be used with advantage in aneurysms, especially in the sacculated varieties, and in the diseases that are accompanied by hæmorrhagic manifestations.

The Treatment of Tuberculosis of the Skin. By Dr. G. B. Burzaghi.—Olivisetos, of Athens, reported five cases of tuberculosis of the skin which he treated with applications of guaiacol. The author reports one case in which he has used a similar method. He curetted the affected area with a Volkmann spoon under anæsthesia, then applied a sublimate dressing, which he left in place for three days. On the third day, he began the applications of guaiacol for which he used the following preparation, according to Olivisetos's formula:

℞ Guaiacol, pure... }
Sterilized olive oil. } ....āā. 40 grammes;
Alcohol at 60°............. 10 grammes.

The author found that in order to avoid the toxic symptoms from absorption of the guaiacol it was necessary to reduce the quantity of the drug and of the olive oil to ten grammes each, leaving the quantity of alcohol unchanged. He found that this formula had the same local effect as the stronger mixture, and therefore continued to use it until the patient was cured. After twenty-one days the applications were stopped because the lesion was reduced to the size of a coin of one centesimo. For the remaining seven days of the treatment he used applications of sublimate, after which the cicatrization was complete. Guaiacol and Fowler's solution were prescribed internally during the course of treatment. The author admits that one case is not enough to establish the clinical value of the method, but the brilliant result achieved in this instance is very encouraging.

Riforma medica, September 17, 18, 19, and 21, 1900.

Mixed Infections of the Skin. By Dr. Antonino Zaffire.

September 22 and 24, 1900.

Fluegge's Theory and its Application in Surgery. By Dr. Roberto Binaghi.—The influence of germs floating in the atmosphere, on particles of dust or in minute droplets of moisture, upon the field of operation, has been but little studied since the cumbersome sprays of the Listerian era have been abandoned. Fluegge's investigations have reopened this question, and the present author reports the results of an experimental study of the atmosphere of the hospital, with the object of establishing the true relation of the atmospheric germs to wound infection. In investigating the bacterial flora of the hospital atmosphere, the author employed Concornotti's method with some modifications, and limited his researches to two species of staphylococci, as these are of special interest to the surgeon in connection with the question under consideration. He analyzed the air of the operating room, of the wards, of the dispensary, etc., at frequent intervals during the months from November to June, and noted the variations in temperature and pressure of the atmosphere coincident with his analyses, with the idea that a relation existed between these meteorologic factors and the number of germs in the air. In order to collect the germs he exposed Petri dishes with glycerin-agar to the air of the room to be tested, at different altitudes and for definite periods of time. After culture in the thermostat for from twenty-four to thirty-six hours, these plates were examined, and solutions of the colonies in sterile water were injected intravenously, the jugular vein of the animal being usually selected; for a more direct result may be obtained in this manner, while subcutaneous injections may or may not give rise to a general infection.

Of fifty-two rabbits thus inoculated, thirty-one died (59.6 per cent.), while the remaining twenty-one were kept under observation for a considerable length of time and resisted the infection. Of the thirty-one animals that succumbed, thirteen died of staphylococcous infection, and were distributed as follows: In the operating room, of twenty inoculated animals, three died of staphylococcous infection (15 per cent.); in the ward, three out of thirteen inoculated animals died (25 per cent.); in the dispensary, four rabbits succumbed out of ten that had been inoculated (40 per cent.), and in the patient's corridor, three animals died out of ten that had been infected (30 per cent.). This shows that the air of the dispensary contained the most staphylococci, and the air of the operating room contained the smallest number of these germs. In addition to staphylococci, the writer isolated from the blood in the heart-ventricles of these animals the *Bacillus pyogenes fœtidus,* the *Bacillus coli, Bacillus typhi similis,* the diplococcus of Fraenkel, and the *Bacillus mucosus.* His conclusions are as follows: (1) Staphylococci are the germs most frequently present in the air of surgical wards and other surgical rooms. (2) Their number differs according to the amount of traffic in the rooms, and they are most numerous in the rooms where many persons go in and out. (3) The influence of the atmospheric pressure and of temperature cannot be stated with certainty, but in the author's experiments the germs were more frequent in the presence of high temperatures and pressures. (4) The fear of some surgeons concerning the influence of the atmospheric germs in infecting operative wounds is justified. It is important that the air of the operating room be kept as aseptic as possible, and that the number of persons present at an operation should be reduced to a minimum.

September 25, 1900.

Fluegge's Theory and its Application in Surgery: Concerning the Importance of Wearing Masks during Operations. By Dr. Roberto Binaghi.—In this article the writer reviews what has been written of late concerning the germs in the air of the operating room, especially those contained in the particles of moisture emitted by the operator or his assistants in coughing and sneezing. In order to study this question, the author performed two series of experiments. In the first he collected the germs without a mask, in the second he made use of a gauze mask constructed after the description of Berger. He placed on a table a plate about fifteen centimetres square, covered with glycerin-agar, an area equal to that usually exposed during an operation, and, with their faces at a distance of from twenty to forty centimetres, he caused persons to sneeze and cough over the culture-plate. Each experiment lasted about fifteen to thirty minutes, then the plate was immediately covered and placed in an incubator for from twenty-four to thirty-six hours at 37° C. The number of colonies was then counted, and the individual colonies tested as to their virulence by inoculation into animals. Of eighteen experiments, seven gave positive results, and among these he found very virulent *Staphylococci aurei* four times, *Staphylococci albi* twice, and streptococci once. In the second series of experiments conducted with a mask over the mouth and nose, the writer found that, under the same conditions, the number of bacteria on the culture-plate was very small, and in ten experiments out of fifteen there were none whatever. In the remaining five experiments, the few colonies of bacteria that appeared on the plates had no pathogenic action on inoculation into animals. The gauze used on the masks was also examined by soaking the threads in sterilized water and inoculating control animals with small quantities of the solution. In three animals out of eight, a positive result was obtained.

The author concludes that the only way in which wound infection from the air may be prevented, is by the wearing of gauze masks over the mouth and nose of the operator and assistants during surgical operations.

Vratch, September 16, 1900. (September 28, N. S.)

The Treatment of Eclampsia. A Report Read at the Thirteenth International Medical Congress, Section of Obstetrics. By Dr. V. V. Stroganoff.—The mortality of eclampsia is still high, reaching to from twenty to thirty per cent. in some European clinics. The methods of treatment are by no means firmly established. The author describes his own method of treatment, as practised by him for the past three years. He reports statistics concerning ninety-two cases treated by this method. Of these, only five died, a mortality of 5.4 per cent. In three of the fatal cases, the death was due to complications, and the patients were moribund on admission. In the other two cases, the patients died after the eclampsia had subsided, of post-partum hæmorrhage and of paralysis of the heart. The author gives a series of tables exhibiting the influence of his treatment on the number of paroxysms in each case. He considers eclampsia as an acute infection produced by a volatile, but sufficiently stable, poison which penetrates into the body of the woman through the air passages. Essentially, the infection is not a severe one, and although it is widely distributed, women only become infected with it under certain conditions. He uses rectal and subcutaneous injections of normal salt solution in order to regulate the heart's action and to stimulate the activity of the kidneys. If the eclampsia is prolonged, he uses enemas of soluble nutritive substances in addition to the saline injections. One or two teaspoonfuls of brandy may be advantageously added to the enema. If the patient is able to swallow, warm milk may be given by mouth, on condition that the woman drinks it of herself. Digitalis is another useful remedy in these cases, and the infusion may be given, by mouth if the patient is conscious, otherwise by rectum, until the pulse diminishes in frequency. Everything that embarrasses the heart's action must be removed, and the patient must not be permitted to lie on her left side. In severe cases, ether, camphor, musk, and caffeine, may be used as heart-stimulants. Attention must also be paid to the respiratory organs. With a towel wound on an artery clamp, the mouth should be wiped clear of mucus, and the patient may be placed on her right side during the paroxysm, to facilitate the outflow of saliva. In order to secure proper oxygenation of the blood, oxygen should be given after each attack until the cyanosis has passed away. The movements of the chest should be free, and not hampered by position, nor by coverings, etc. The best position is the dorsal, but this may be changed to the right side or to the left, as the patient finds most comfortable. Dry cups to the chest are useful if there is much mucus in the bronchi. If œdema of the lungs has already developed, bloodletting may also be used.

But the most important part of the treatment is the prevention of the paroxysms. The author uses prophylactic doses of morphine and chloral, which as a rule interrupt the paroxysms for from twenty-four to forty-eight hours. The first injection is given preferably after the first paroxysm, and if the coma is prolonged, especially if the labor is delayed, the hypnosis must be kept up with smaller doses of morphine and chloral. The first injection (morphine, grain $\frac{1}{6}$th) is repeated in an hour, or before if the patient is very restless. Two hours later, a rectal injection of from thirty to forty-five grains of chloral is given, in aqueous solution. These rectal injections are repeated in somewhat smaller doses if the patient is quiet, at intervals of four, six and eight hours. In severe cases, he uses the maximum doses, and in advanced cases, he repeats the doses at more frequent intervals. If the patient is sleeping quietly, the repetition of the hypnotic doses is not necessary. In exceptional cases, in which the attacks were very frequent, he used chloroform until the morphine and chloral began to act. The necessity of guarding against all forms of peripheral irritation is self-evident. The induction of labor was always conducted under chloroform. Forced labor is not indicated, however, if the conservative treatment outlined above takes effect, and in the series of ninety-two cases reported, the author did not induce labor in a single instance.

Some Data Concerning the Blood of Children in Intermittent Fever. By Dr. I. K. Strjelbitzky. (*Concluded.*)

Scurvy in the Ætiology of Pleurisy. By Dr. N. N. Petroff (*Concluded*).—The author reports cases IX and X of his series, and draws the following conclusions, from his study of the relation of scorbutus and pleuritic inflammations: (1) A mild degree of scurvy may produce pleurisy. (2) This pleuritic inflammation may be one of the earliest manifestations of scurvy, and the other signs of the scorbutic state may take second place, or may be overlooked in a superficial examination. (3) The prognosis of these cases of pleurisy as a complication of scurvy is, as a rule, favorable, and the effusion is not necessarily bloody. (4) Patients with an apparently idiopathic pleurisy must be carefully examined for symptoms of scurvy.

Miscellaneous.

A Hint for European Dwellers in the Tropics.—Dr. R. W. Felkin (*Journal of Tropical Medicine,* September) abstracts in part a paper recently presented by Von Schmaedel to the Anthropological Society of Munich. Dr. Felkin says:

"To go into detail, light waves between Frauenhofer's lines A-F on the spectrum are chiefly those which produce warmth. Those between F-H are chiefly those which produce chemical action. The light waves between F-H are obnoxious to many of those bacteria which convey disease to man. . . . Von Schmaedel, basing his opinion on his wide photo-chemical experience, thinks that he is justified in stating 'that the chemical action of the light waves exerts a solely beneficial action upon the living organism only when a certain balance obtains between them and the reaction which they induce. Just as it is possible for man to live within certain degrees of heat and cold, so the measure of the chemical action of light upon the balance of the functions of the organism is of the highest importance. If the amount of the chemical action of light is too great or too long continued a disturbance of balance sets in, which may at length, if too great, jeopardize the existence of the organism.

" 'I think I may venture to state the hypothesis, that through long-continued chemical action of light an organism may be gradually overloaded with insoluble products of oxydation, which at length prevent their elimination and further depress the power of the serum to resist infection, causing changes in the formation of the blood, etc, etc. These are pure speculations, which have not yet been sufficiently investigated; their proof, however, is of so much importance that investigators would do well to pay attention to the subject.' . . . 'In any case it is a matter of fact that the white man who proceeds to the tropics suffers greatly from the intensity of the sunlight, and that he is not in a condition to live there continuously unharmed. Whether my view that this danger to health is intimately connected with the excessive action of the chemical light waves is correct I cannot say with absolute certainty, still I have grounds for this view based upon numerous observations on photo-chemical changes, and really think that such is the case. Man does not alone require light for his well-being; he must also guard himself from too much of it, unless he will run the risk of grave harm. The method by which we have to protect ourselves against an all too potent action of the chemical light waves, is placed at our hand by Nature in the most striking manner.' "

In 1887, says Dr. Felkin, the author read a paper in Munich on Why are the Negroes Black? in which he pointed to the remarkable fact that those races which inhabit zones in which the intensity of the light is exceedingly great, are all provided with a pigment in their skins which, in consequence of its color, acts, one can only say, as an exceedingly effective protection to a too great penetration of the active chemical light waves. The black-brown pigment in the skin of the negroes, the brownish pigment in the skin of the Arabs, the yellowish and reddish pigment in the skin of other races—all belong in their various gradations to those parts of the spectrum which not only are not chemically active, but almost, if not quite, neutralize them. Nature acts exactly like the photographer when he seeks to protect his sensitive plates from the chemical action of the light. She surrounds the organism with a kind of dark room in order to paralyze too great an action of light.

Pigments whose color are like those between Frauenhofer's lines F-H, neutralize the red or heat-producing light waves, *i. e.*, Frauenhofer's lines A-F, and *vice versa.* Pigments of a light white color neutralize the heat rays, but let the chemically active rays pass unhindered; whereas black pigments permit the heat rays to pass, but stop the chemical.

"All these facts," says von Schmaedel, "are of the greatest importance to individuals of the so-called white races who go for a long residence in the tropical or subtropical zones."

A white man who wears in the tropics light white or blue clothes, has the advantage by their means of reflecting the heat rays, but he exposes himself to the full force of the chemical rays of light, which can pass completely through, and his health will be in a relatively short time highly endangered, as he has no sufficient protection in the pigments of his skin.

That, not-to-be-despised, acclimatizing fever, which the Dutch call "rothen Hund"—"the red dog"—consists in this, that the surface of the body everywhere is seemingly protected by light-colored clothes, becomes exceedingly inflamed, causing severe symptoms of fever, is in my view a characteristic sign of the excessive morbid action upon the organism of the penetrating light waves.

Dark stuffs, so far as they do not fall under the "blue" side of the spectrum, or such whose colors fall between Frauenhofer's lines A-F, have, on the other hand, the advantage that they prevent the penetration of the chemically active waves of light, but they let pass unhindered the heat waves, whereby the well-being of the wearers naturally suffers in a high degree.

"It is therefore of importance," continues von Schmaedel, "and, according to my *lay* opinion, of the greatest importance, for the civilization of tropical countries, that the white races should construct a system of dress with the definite object of protecting the organism from the injurious influences, as mentioned above. In order to prove that white or colored stuffs, which correspond to that part of the spectrum lying between Frauenhofer's lines F-H, permit the passage of the chemically active light waves in high degree, and that at the same time stuffs dyed black, or colors corresponding to that part of the spectrum lying between Frauenhofer's lines A-F, entirely, or at any rate partly prevent their passage—may I be permitted to show some examples of chloride of silver copies which have been made with these stuffs by means of a ten minutes' exposure to sunlight?"

The speaker then showed a series of experiments which proved the above-mentioned theories—even four folds of white cloth did not prevent the penetration of the chemical rays to any appreciable extent, even after twenty minutes' exposure.

"You see, therefore, that the permeability of blue or white clothes is quite extraordinary, but that stuffs of the proper color completely neutralize the chemically active waves. From this it follows that it is advisable for the white man who is compelled to live in the tropical zone, or one similar to it, to choose his clothes so that the outer surface is of a single plain color or mixed colors or *broché* (material with a pattern) which would reflect the heat-light waves, whereas the inner surface should consist of a single or mixed or *broché* color which would neutralize the chemically active light waves. This may be done by using either 'complex' material or material dyed different colors (reversible materials) on either side, or by the material being 'double-woven.'" Dr. Felkin adds: "The same object may be obtained by wearing a 'combination,' or singlet and pants of one color and coat and trousers of another. The only objection might be the heat the double garments might produce."

The white man would also do well to base the color of his tent, umbrella, etc., upon the same principle. By these means, even wearing the lightest clothing, an individual of a white race would place himself on an even footing with the natives who are protected by the pigment in their skins from the strong injurious attacks of the tropical sun, and indeed without any danger to his organism.

Nothing more need be said as to the importance of this in the exploration, civilization, and ruling of tropical countries.

Book Notices.

BOOKS, ETC., RECEIVED.

Twentieth Century Practice. An International Encyclopædia of Modern Medical Science. By Leading Authorities of Europe and America. Edited by Thomas L. Stedman, M. D., New York City. In Twenty Volumes. Volume XX, Tuberculosis, Yellow Fever, and Miscellaneous. General Index. New York: William Wood & Company, 1900. Pp. vii-906.

A Practical Treatise on Genito-urinary and Venereal Diseases and Syphilis. By Robert W. Taylor, A. M., M. D., Clinical Professor of Venereal Diseases at the College of Physicians and Surgeons (Columbia University), New York, etc. Second Edition, thoroughly Revised. With 138 Illustrations and 27 Plates in Colors and Monotone. New York and Philadelphia: Lea Brothers & Company, 1900. Pp. 5 to 722.

A Text-book of the Diseases of Women. By Henry J. Garrigues, A. M., M. D., Gynæcologist to St. Mark's

Hospital, New York City, etc., with 367 Illustrations. Third Edition, thoroughly Revised. Philadelphia: W. B. Saunders & Company, 1900. Pp. 7 to 756. [Price, $4.50.]

An American Text-book of Physiology. By Henry P. Bowditch, M. D.; John G. Curtis, M. D.; Henry H. Donaldson, Ph. D.; W. H. Howell, Ph. D., M. D.; Frederic S. Lee, Ph. D.; Warren P. Lombard, M. D.; Graham Lusk, Ph. D., F. R. S. (Edin.); W. T. Porter, M. D.; Edward T. Reichert, M. D., and Henry Sewall, Ph. D., M. D. Edited by William H. Howell, Ph. D., M. D., Professor of Physiology in the Johns Hopkins University, Baltimore. Second Edition, Revised. Vol. 1, Blood, Lymph, and Circulation; Secretion, Digestion, and Nutrition; Respiration and Animal Heat; Chemistry of the Body. Philadelphia: W. B. Saunders & Company, 1900. Pp. 3 to 598. [Price, $3.]

Hernia: Its Ætiology, Symptoms, and Treatment. By W. McAdam Eccles, M. S. (Lond.), F. R. C. S. (Eng.), Assistant Surgeon, West London Hospital, etc. New York: William Wood & Company, 1900. Pp. xiv-231.

Heart Disease in Childhood and Youth. By Charles W. Chapman, M. D. (Durh.), M. R. C. P. (Lond.), Physician to the National Hospital for Diseases of the Heart, Soho Square, W., etc. With an Introduction by Sir Samuel Wilks, Bart., M. D., F. R. S., Physician Extraordinary to H. M. the Queen, etc. London: The Medical Publishing Company, Limited, 1900. Pp. 101. [Price, 3s. 6d.]

Le pneumocoque et les pneumococcies. Par Adrien Lippmann, Interne des hôpitaux de Paris. Préface du Dr. Duflocq, Médecin de l'Hôpital Tenon. Avec 2 figures dans le texte. Paris: J. B. Baillière et fils, 1900. Pp. 5 to 96.

Address before the American Dermatological Association. By the President, Henry W. Stelwagon, M. D., at the Twenty-fourth Annual Meeting, held in Washington, May 1, 2, and 3, 1900, in Connection with the Fifth Triennial Session of the Congress of American Physicians and Surgeons.

Some Auxiliaries to Climatic Treatment of Phthisis. By J. Edward Stubbert, M. D., of Liberty, N. H. (Reprinted from the *Medical Review of Reviews.*)

Subsequent Histories of Patients Apparently Cured under the Administration of Antitubercle Serum as an Auxiliary to Climatic Treatment. By J. Edward Stubbert, M. D. (Reprinted from the *Medical News.*)

The X-rays as a Diagnostic Agent in Pulmonary Diseases. By J. Edward Stubbert, M. D. (Reprinted from the Special X-ray Number of the *Philadelphia Medical Journal.*)

Miscellany.

St. Louis Medical Society of Missouri.—At the meeting held on Saturday evening, October 20, 1900, the following paper was read: Home Treatment of Tuberculosis, by Dr. William Porter.

Diphtheria Spreading in Cleveland.—The outbreak of diphtheria in a suburb of Cleveland has grown to such serious proportions that the establishment of a quarantine against the infected district is contemplated.

A Municipal Hospital for Camden, N. J.—The Camden (N. J.) Medical Society has unanimously endorsed the proposition for the establishment of a municipal hospital.

Dr. Stillé's Will may be Contested.—It is reported that the widow of the late Dr. Alfred Stillé will contest his will on the ground that she does not receive under the will the full one-third interest in his estate which, as his widow, she is entitled to by law. He left an estate valued at from $70,000 to $100,000, besides a very valuable medical library, which last is to be divided between the University of Pennsylvania and the College of Physicians.

The Cincinnati Medical Club is to be the name of a social organization of Cincinnati physicians which is now in process of formation. It is proposed to rent the old University Club building at Fourth street and Broadway and to sublet one floor to the Academy of Medicine. The movers in the matter embrace Dr. P. S. Dandridge, Dr. Mark Brown, Dr. Charles Caldwell, Dr. W. H. Taylor, Jr., Dr. Joseph Hall, Jr., Dr. John E. Greiwe and other prominent physicians.

Medical Examiners Discussed.—At the meeting of the Middlesex South District Medical Society, held at the Colonial Club, Cambridge, Massachusetts, the medical examiners formed the topic for discussion, papers being read as follows: When Should the Medical Examiner be Called? by Dr. Z. B. Adams, of Framingham; The Duties of the Medical Examiner, by Dr. Julian A. Mead, of Newton; Advantages of the Medical Examiner System over the Coroner System—Can the Present Law be Improved? by Dr. E. C. Hoitt, of Marlboro, and The Medical Examiner and the Physician in the Witness Box, from the View Point of the Lawyer, by Assistant District-Attorney John R. McLaughlin.

The German Association for Public Sanitation.—The twenty-fifth annual meeting of the German Association for Public Sanitation was held at Triev from September 13th to 15th, and a large number of valuable papers were presented and discussed.

The Annual Report of the Surgeon-General of the Army.—We make the following extracts from Surgeon-General Sternberg's report for the fiscal year ending June 30th, dated October 17th:

Medical Officers.—The medical department consists at present of 192 officers, a number which barely sufficed for the needs of the army before the outbreak of the late war with Spain, and proved utterly inadequate in number, notwithstanding the earnest efforts of its members, to form a satisfactory basis of organization for the large increase made to our military forces during the progress of that war. Similarly, since the close of the war it has been impossible for the medical department, without professional assistance from civil life, to provide for the sanitary and medical work at the large number of new posts and stations that have been established at home for coast defense, in Cuba, Puerto Rico, and Hawaii for garrison duty, and for the military operations in the Philippine Islands. Excellent assistance has been obtained by contract with civil physicians, so far as concerns the professional care of the sick and wounded, but much experience is required to fit these medical men for the sanitary work of their position and to familiarize them with army methods.

United States Volunteers.—At the end of the year there remained in service 34 surgeons with the rank of major, 11 of whom were captains in the regular establishment.

Regimental Surgeons and Assistant Surgeons, U. S. Volunteers.—On June 30, 1900, there were 78 regimental surgeons and assistant surgeons in the service, 25 majors, 13 of whom were captains in the regular army, 27 assistant surgeons with the rank of captain, and 26 assistant surgeons with the rank of first lieutenant.

Acting Assistant Surgeons, U. S. Army.—There were in service June 30, 1899, 389 acting assistant surgeons. During the year 1899-1900 contracts were made with 434 physicians, while 358 contracts were annulled and 3 terminated by death, leaving in service June 30, 1900, 462 under contract. Of this number, 121 were on duty in the United States, 22 on transports, 10 in Puerto Rico, 60 in Cuba, and 249 in the Philippine Islands. All contract surgeons now in service have been examined by boards of medical officers constituted by me to determine their fitness, physical and professional, for the discharge of their duties.

Boards for the Study of Tropical Diseases.—On my recommendation, a board of medical officers consisting of First Lieutenant Jere. B. Clayton, assistant surgeon, U. S. Army; First Lieutenant Richard P. Strong, assistant surgeon, U. S. Army, and Acting Assistant Surgeon Joseph J. Curry, was appointed to meet at one of the general hospitals in or near Manila, P. I., to be designated by the commanding general, Department of the Pacific, upon the recommendation of the chief surgeon of the department, for the purpose of studying tropical diseases as they occur in those islands.

Another board was appointed to meet at Camp Columbia, Quemados, Cuba, in May, 1900, for the purpose of pursuing scientific investigations with reference to the infectious diseases prevailing on the Island of Cuba.

The Hospital Corps.—At the close of the fiscal year ending June 30, 1899, the hospital corps consisted of 189 hospital stewards, 287 acting hospital stewards, and 2,892 privates; a total of 3,368. During the fiscal year ending June 30, 1900, the gain to the corps was 2,272 men, of whom 1,490 were obtained by the enlistment of civilians, 282 by re-enlistment, and 500 by transfer from the line. The corps lost during the same period 1,549 men, the greater part of them by discharge. It is worthy of note that 88 were discharged on certificates of disability, 2 were killed in action, 1 was reported missing, and 27 died of disease. The number of hospital-corps men in service June 30, 1900, was 167 hospital stewards, 381 acting hospital stewards, and 3,543 privates; a total of 4,091.

Army Nurse Corps.—The number of female nurses in the army nurse corps has remained approximately constant during the year, there having been 187 in the service July 1, 1899, and 210 on June 30, 1900; 165 contracts were made and 149 were annulled. The movement of troops to the Philippines has occasioned a corresponding movement of nurses, and 122 are there now against 33 at the beginning of the year. Female nurses have recently left Honolulu and the hospital ship *Relief*, but are serving in increasing numbers on the army transports in the Pacific. The organization of the army nurse corps has been steadily improved and its adjustment to the army made more satisfactory in details. The work of the nurses continues to be highly appreciated and their services are in demand at almost all hospitals of importance.

Recruiting.—The total number of men examined for enlistment in the regular army during the year 1899 was 70,311, of whom 64,303 were white and 6,008 were colored. The number accepted was 47,899, or 681.24 out of every thousand examined. The ratio of accepted men was 677.36 for the white and 722.87 for the colored. White men to the number of 49.00 and colored men to that of 26.96 per thousand declined enlistment. The rate of rejection on primary examination was 273.64 among the white and 250.17 among the colored candidates, giving a mean of 271.64.

Hospitals, Post and General.—During the past year modern hospitals were completed at Fort Adams, R. I.; Madison Barracks, N. Y.; Fort Slocum, N. Y., and Fort Banks, Mass. Additional wards, kitchens, and dining rooms were added to the hospitals at Fort Ethan Allen, Vt., and Fort Porter, N. Y., and a new kitchen was added to the hospital at Fort Monroe, Va. The hospital at Mayaguez, P. R., was reconstructed, and the hospital at San Juan, P. R., was provided with new plumbing and otherwise improved. Plans and specifications were also prepared for a hospital at Santa Clara Barracks, Cuba.

An additional ward for fifty beds and a new kitchen are in course of erection at the Army and Navy General Hospital, Hot Springs, Ark., and new hospitals are being erected at Fort Terry, N. Y.; Fort Preble, Me.; Fort Williams, Me.; Fort Strong, Mass.; Fort Leavenworth, Kans.; Fort Ontario, N. Y.; Fort Howard, Md., and Fort Dupont, Del., and an important addition is being made to the hospital at Washington Barracks, D. C.

A general hospital or sanitarium for the treatment of officers and men of the army suffering from pulmonary tuberculosis was established on my recommendation during the past year at Fort Bayard, New Mexico. Transfers of enlisted men suffering from this disease are made on the recommendation of the medical officers of the army forwarded through military channels. Discharged soldiers who are entitled to the benefits of the United States Soldiers' Home, Washington, D. C., are cared for at this establishment when sent by order of the board of commissioners of the home, the expense for the maintenance of such soldiers being paid from the Soldiers' Home funds.

Besides the special hospitals at Hot Springs, Ark., and Fort Bayard, N. M., there are now in service in the United States only two general hospitals; one at Washington Barracks, D. C., and the other at the Presidio of San Francisco, Cal. The one supplies the needs of the troops serving in the eastern part of the country and is utilized as a training school for recruits for the hospital corps. The other receives sick men from organizations en route to the Division of the Philippines and patients sent from the hospitals in Manila for the benefit of the home climate.

Health of the Army in 1899.—During the calendar year 1899 there were 229,885 admissions to sick report recorded in a mean strength of 105,546 regulars and volunteers. This is equivalent to a rate of 2,178.06 per thousand of strength, as compared with 2,146.18 per thousand during the year 1898, and with 1,237.24, the mean annual rate for the decade 1888-'97. Of the admission rate for the year, 714.99 was constituted by malarial diseases, 380.69 by diarrhœal diseases, and 192.48 by injury, of which 21.56 admissions per thousand men resulted from gunshot; typhoid fever contributed only 20.69 cases per thousand of strength. Of the admission rate for 1898, malarial fevers constituted 611.78, diarrhœal diseases 388.62, injuries 140.38, of which only 13.92 resulted from gunshot; typhoid fever contributed 141.59 cases per thousand of strength.

The deaths in 1899 amounted to 1,945, equal to a rate of 18.43 per thousand as contrasted with 27.99 during the year 1898, and with 6.69 the mean of the preceding decade. The principal causes of death and the rates per thousand men contributed by them were: Gunshot wounds, 5.10; other injuries, 1.57; typhoid fever, 2.44; diarrhœal diseases, 2.14; malarial diseases, 0.99; pneumonia, 0.94; and variola, 0.80. The prominent causes of death and the rates contributed by them in 1898 were: Typhoid fever, 14.83; gunshot wounds, 2.04; other injuries, 0.98; diarrhœal diseases, 1.45; malarial infections, 0.97; and pneumonia, 0.92.

Troops serving in Cuba had the highest rate of admission, 2,749.74 per thousand, as against 3,413.54 per thousand in 1898, the result of exposures during the active service of the Santiago campaign. The lowest admission rate during the past year, 1,677.51, was given by troops serving in the United States. The highest death rate during the past year, 30.58 per thousand men, was reported from the Pacific Islands. One-half of this was caused by injuries, gunshot injuries being responsible for the death of 12.60 men per thousand of strength. The highest death rate in 1898, 91.55 per thousand, was reported from Cuba; of this rate, 67.94 was caused by disease and 23.61 by injury, gunshot injury being responsible for the death of 21.69 men per thousand of strength.

The number of deaths from all causes among the troops of the regular army amounted to 1,202, equivalent to 18.65 per thousand of strength; 380 of the deaths, constituting 5.90 of the total death rate, were due to injury, and 248, or 3.85 per thousand, to gunshot wounds. The principal diseases which caused this mortality were typhoid fever, with 180 deaths, giving a rate of 2.79 per thousand men; and diarrhœal diseases, with 152 deaths, causing a rate of 2.36.

The number of deaths reported from the volunteer army was 743, of which 324 were due to injuries and 419 to disease. The death rate from all causes was 18.08; from disease, 10.20; from injuries, 7.88. The principal causes of this mortality were diarrhœal diseases, which contributed 1.95 to the rate; typhoid fever, 1.90; small-pox, 1.44; pneumonia, 1.22; malarial fevers, 1.05; and gunshot injuries, 7.06.

The regular troops in Cuba in 1899 had a mean strength of 11,969 officers and men, from which 35,401 cases were admitted to sick report, the equivalent of 2,957.73 per thousand of strength. Of this rate, 2,690.77 was due to disease and 266.94 to injuries, only 3.09 being caused by gunshot. Malarial fevers constituted 1,132.76 of the total admission rate; diarrhœal diseases, 475.82; and venereal diseases, 171.28. The death rate from all causes was 19.55, of which 17.29 was caused by disease and 2.26 by injury. Typhoid fever occasioned 63 deaths, equivalent to a rate of 5.26 per thousand men; yellow fever, 50 deaths, equivalent to 4.17 per thousand; and malarial infections, 20 deaths, equivalent to a rate of 1.67.

The volunteers in Cuba during this year, with a mean strength of 8,082, had an admission rate of 2,441.72 per thousand, of which 1,047.64 was occasioned by malarial fevers and 372.93 by diarrhœal diseases. The death rate from all causes was 16.46, as compared with 86.00 during the previous year under the influences of war. Disease caused a death rate of 14.97 and injury 1.48. Only 1 death from yellow fever occurred among the volunteer troops during this year, causing a rate of 0.12 per thousand men. Malarial fevers caused the highest death rate, 3.71; typhoid fever, 2.72; and diarrhœal diseases, 2.35.

The mean strength of the regulars in Puerto Rico in 1899 was 3,347. In this command the admission rate for disease was 2,352.85; for injury, 275.48; total, 2,628.33. Diarrhœal diseases contributed 582.91 to the total rate; malarial fevers, 467.28; and venereal diseases, 295.18. The death rate was only 11.35 per thousand, of which 2.19 was due to injury and only 9.26 to disease. Diarrhœal diseases and typhoid fever were the prominent causes, the former having contributed 2.99 and the latter 2.69 to the rate of mortality.

The regulars in the Pacific Islands, with a mean strength of 22,922 in 1899, had an admission rate of 2,630.92; 2,454.10 from disease and 176.82 from injury, of which 39.05 per thousand of strength was the result of gunshot. Diarrhœal diseases and malarial infections constituted more than half of the cases, the former having a rate of 728.17 and the latter 705.49, a very considerable increase on the rates of 1898, respectively 431.97 and 429.56. The death rate also was higher, 31.10 per thousand of strength, of which 17.80 was due to disease and 13.30 to injury, 9.60 of the 13.30 being the result of gunshot. Diarrhœal diseases caused the deaths of 5.72 men per thousand of strength; typhoid fever, 3.58; malarial infections, 1.23; small-pox, 1.00; and pneumonia, 0.79.

In this year the volunteers also had a higher rate of admission than in 1898, due to an increased prevalence of diarrhœal and malarial diseases. The death rate from all causes was equal to a loss of 29.83 men per thousand of strength during the year, but only 11.80 of this was caused by disease. Injuries were responsible for 18.03 of the admission rate, of which 16.81 resulted from gunshot. The prominent fatal diseases were small-pox, which caused 3.36 deaths per thousand men; diarrhœal diseases, 3.18; typhoid fever, 2.20; pneumonia, 1.14; and malarial infections, 0.43.

In the army, regulars and volunteers, during the calendar years 1898 and 1899, there were reported on the monthly reports of sick and wounded 347 cases of insanity, and 202 of these cases, or 58.2 per cent., were committed to the Government Hospital for the Insane. One hundred and thirty-five, or 66.7 per cent. of the commitments, recovered in an average period of 3.9 months, 13 were improved, 6 died, and 48 remained unimproved. Ninety-six of the 347 cases were reported on the monthly reports of troops serving in the Pacific Islands, and 32 of these, or 33.3 per cent., were sent to the Government Hospital for the Insane. Seventeen, or 53.1 per cent. of those committed, recovered in an average period of 3.6 months, 2 were improved, 2 died, and 11 remained not improved.

Philippine Islands.—The exposures, fatigues, and excitements of a prolonged campaign are responsible for the large sick report and the relatively large death rate among the troops in the Philippines. However, the opinion is prevalent among our medical officers that in time of peace, and doing only garrison duty, the sick rate of the army in the Philippine Islands would be no higher than it ordinarily is in the Southern United States.

The latest reports received from the chief surgeon, Division of the Philippines, dated August 15, 1900, show a percentage of 8.47 sick for the command, which on that date had a strength of 60,554.

The general character of the diseases affecting the troops may be gathered from the following statement consolidated from the reports of the "Military" and Manila hospitals for August 11, 1900, including a total of 2,807 cases:

Diseases.	*Number of cases.*	*Percentage of total sick.*
Typhoid fever	56	1.99
Malarial fever	605	21.55
Dysentery	403	14.35
Diarrhœa	463	16.40
Other intestinal diseases	50	1.74
Gastric disorders	96	3.42
Wounds and injuries	238	8.47
Heat exhaustion	5	.17
Venereal diseases	271	9.65
Measles	5	.17
Undetermined	99	3.53
All other diseases	516	18.38
Total	2,807	100.00

Food.—The subsistence allowance of 40 cents per day has proved ample at all posts to give the sick and wounded the special diet which they require.

Periodical Insanity.—At a meeting of the New York Neurological Society held on October 2d Dr. A. B. Defendorf read a paper entitled Periodical Psychoses. He said that years ago all forms of insanity were looked upon as more or less periodical, but gradually this list had been reduced to periodical mania and periodical melancholia. The English and American observers had been slow to recognize periodical insanity. The records of hospitals for the insane showed it to constitute a not inconsiderable percentage of cases, coming second to dementia præcox. These cases were characterized by intense psychomotor restlessness, yet the patients exhibited no signs of fatigue after weeks or months of excessive motion. One of the striking features of this form was that consciousness continued unclouded. In the extreme maniacal condition called delirious mania the consciousness of surroundings did become clouded. These patients were rich in words if not in ideas. Delusions, when present, were transitory, and were usually of the expansive type. The patients were happy and contented, yet they changed very suddenly from happiness to melancholia or *vice versa*. In the depressive form, the associations of ideas showed retardation, and the emotional attitude was uniformly one of depression or despair. More or less stable delusions were present. Cases would be found showing both the maniacal and the depressive elements, but usually one or the other predominated. The most prominent ætiological factor was defective heredity, which was found in from seventy to eighty per cent. Other causes were shock, acute diseases, and mental strain. If the first attack occurred after childbirth, it was apt to recur with each succeeding confinement, and continue after the climacteric. The first attack was apt to be of the depressive form. More than half the cases occurred before the age of twenty-five. As the attacks were repeated, the lucid intervals tended to shorten. During these intervals the mental faculties were fully retained. The prognosis was bad. During the height of the disease, or in the extremely maniacal or depressive forms, death might occur from exhaustion or might be self-inflicted.

Dr. B. Sachs said that, while everybody recognized that there was such a thing as periodical insanity, there was danger lurking in the term, because almost all forms of mental phenomena were apt to exhibit a tendency to recurrence. For this reason it should be insisted that there must be a regular recurrence, for instance, of mania and depression with perhaps a lucid interval. It was rather curious that those who described periodical insanity insisted that there must be marked depression. He could recall a case of distinct hypochondriasis followed by a lucid interval of seven years and then an attack of pronounced melancholia. There was again a lucid interval followed by an attack of mania. Attention was called to the remarkable suddenness with which the patient passed from one state to another. He had had under observation a girl who had been in a state of depression for over eight months, and then very suddenly had had a lucid interval lasting a year. This had in turn been followed by acute mania.

Dr. W. D. Granger said that a few cases of undoubted circular insanity were so decided in their symptoms that they could not be mistaken for anything else. This was particularly true if the person was seen late in life and had a history of recurrent attacks extending over many years. There were, however, many cases less pronounced in type, rendering it difficult to classify them. He had personally seen only a few cases of circular insanity. He had never seen the sudden changes referred to by the last speaker, and he had never seen a case of true incoherence in connection with circular insanity. He had seen several cases of recurrent insanity in which there were from two to five attacks of rather mild melancholia. He had observed a young lady suffering from this form of insanity, and also her mother, brother, and sister. The sister had had a most violent mania, proved at autopsy to have been a complication of typhoid fever. She had had periodical attacks of active though not violent mania. Another form of the circular type that he had noticed, and had never seen described in the text-books, was the form of chronic mania leading in the last few years of life to recurrent attacks of mania and melancholia.

Dr. William H. Thomson said that he had had under his continuous observation for ten years a case of periodical insanity, and probably the only one to which he would be willing to apply the term. The attacks had recurred regularly every other day all these years. The patient was a man, forty-eight years of age, when the disease had first set in. There was no hereditary psychosis. At the beginning he had been attacked with melancholia, and had attempted suicide. Attention had been early directed to the fact that his condition was worse every other day, and for this reason he had most thorough and persistent antimalarial treatment. When first seen by the speaker, his memory was good, and he was in no way irrational. The temperature was normal. The next day his temperature had risen to 101° F., and he had become delirious. On the following day his condition was that noted at the first visit. The febrile symptoms had ceased after about three months, but in other respects the case had kept up this alternation ever since that time. Examination of the man's secretions had thrown no light whatever on the ætiology of his singular mental disturbance. The type was that of melancholia with excitement. He had never been truly maniacal. Regarding periodical psychoses in general, Dr. Thomson said he could not agree with the reader of the paper that they constituted such a definite class, for, if they did, they should be definitely periodical. Another case was then cited, in which the attacks had begun with talkativeness and an appearance of well-being, which would last for about six weeks and be followed by extreme mental depression. At no time was there any confusion of personality or any delusion. The attacks of mental paresis would last two or three months, and would usually come on every winter. Such a case seemed to him a true example of periodical psychosis, but many of those described in the paper seemed to him to come rather under the head of relapsing than periodical insanity.

Dr. William M. Leszynsky said that no one could tell at the first attack whether there would be recurrence or not. With a good previous history it was an entirely different matter.

Dr. L. Pierce Clark said that while in a hospital for the insane he had seen a case of intermittent mental stupor which recurred at short and fairly regular intervals, thus resembling, in some respects, the case reported by Dr. Thomson. Such cases were very rare, only six being on record. Sudden transitions were quite characteristic in the mental disorder first described by Charcot in connection with mental epilepsy.

Dr. Defendorf said that the periodicity was the characteristic of the whole course of the disease throughout the life of the individual, and it was certainly an irregular periodicity. But there were certain fundamental symptoms, such as the condition of the memory, the tendency toward deterioration, and the character of the delusions and hallucinations, upon which the diagnosis should be founded. Relative to the sudden transitions from one state to another, this occasionally happened, sometimes over night.

The Status Epilepticus: Its Nature and Pathology.—At the same meeting Dr. L. P. Clark and Dr. T. P. Prout presented a paper, of which Dr. Clark read the clinical portion. About forty-five cases formed the basis of the paper. Unfortunately, only five cases could be studied histopathologically. The modern notion of the status was that it was the acme, or true climax, of the disease, and not, as formerly supposed, a chance termination of epilepsy that by proper treatment could have been avoided. It was a state of epilepsy in which one seizure followed another so closely that the previous psychical exhaustion was not recovered from. One patient at the Craig Colony for Epileptics had 384 typical psychical seizures in one day. The condition occurred with about equal frequency in all the different forms of epilepsy, except that dependent upon organic brain disease. The latter constituted one-half of all the cases of the status. Exhaustion paralysis was very characteristic of the status. No foundation had been found for the statements of some writers that either age or sex exerted any influence. According to the authors' experience, the shortest intervals had been in persons whose epilepsy had come on between the ages of ten and sixteen years. On an average, eleven years elapsed between the beginning of the epilepsy and the occurrence of the status. Menstruation in women did not seem to be productive of the status. In the great majority of cases the approach of the status was denoted by a steady increase in the frequency of the epileptic seizures. They had seen 300 attacks a day in several cases, and still recovery had occurred. One patient had had the status epilepticus for twelve days, and had recovered, having had during this time 1,800 seizures. The temperature elevation in the status usually began after the first severe convulsion, and there was usually a direct ratio between the number and severity of the convulsions and the elevation of temperature. The record of the pulse, temperature, and respiration frequency gave the best indication of the severity of the status. Generally the maximum of the fever marked the maximum of the seizures, and, if the fever persisted after this, one should be led to suspect some complication. Occasionally the fever subsided by crisis. Occasionally also the temperature rose to 107° or 108° F. As to the cause of the fever curve, some looked upon the elevation of temperature as purely psychical, while others believed that it was the result of a direct effect on the heat centre. The pulse rate increased in frequency with each attack, but the pulse curve usually ran nearly parallel to the temperature curve, though responding more slowly on recovery from the status. Almost always there was Cheyne-Stokes respiration, but it was not so unfavorable a symptom as in some other disorders. Both pneumonia and pleurisy were fairly frequent complications. The prognosis of the status was necessarily grave. A low temperature was supposed to be a fair sign, though there might be recovery after a temperature of 107.5° F. Paralysis of the muscles of deglutition was a very unfavorable sign. The gradual, steady increase in the symptoms was the most unfavorable sign of all. Many patients had a record of from two to five status periods, and it was probable that the mortality did not exceed twenty-five per cent. It was possible to abort a case of status if it was taken in time, and certainly the present mortality should be reduced. The plan of treatment pursued in the cases mentioned in the paper had been as follows: At the outset, the patient was given a dose composed of twenty-five grains of bromide, twenty grains of chloral, and a large amount of opium or morphine. If the convulsions were not controlled, thirty or forty grains of chloral were given by the rectum, and, if this was not sufficient, bromide was given hypodermically in a part of the body that would be the least painful if abscesses formed, as they often did after such injections. The latter were very painful, and should be given only in the stuporous stage. They usually controlled the condition.

Dr. Prout then took up the pathological side of the subject. He said that the modern belief was that the epileptic storm had its seat in the cortex. Recent experimental research seemed to warrant the following conclusions: 1. That the transmission of the impulse in epilepsy was through the extrapyramidal tracts which transmitted motor reflex impulses. 2. That the sensory portions must be irritated in order to produce the fit. 3. That the fit appeared to be a complex reflex phenomenon.

The paper was founded on a study of thirteen cases. In all but two the post-mortem examination was made within seven hours after death. The changes found in the brain were by far the most pronounced in the status cases. The degree of chromatolysis seemed to depend upon the number and severity of the convulsions. In the cells of the second layer the nucleus was decidedly swollen, the nuclear membrane was hazy and indistinct, and the nucleolus was frequently replaced by a granular mass. These were especially numerous in the status cases. Many nucleoli were found far removed from the cells to which they belonged. He had examined the normal human brain with regard to this nucleolar extrusion, and had found it comparatively infrequent. Leucocytes clinging to degenerated nerve cells were also very frequently observed. The neuroglia had been studied in seven cases, and the conditions found to vary a good deal. A broadening of the outer cortical layer was fairly constant, and occurred apparently at the expense of the cortical layer. The condition of the neuroglia seemed to depend largely upon the condition of the epilepsy. It was more pronounced in the insane epileptic than in cases of simple epilepsy. When morbid processes attacked the nucleus, the vitality of the cell itself was endangered.

The increase in the neuroglia was the result of nerve-cell destruction. The conclusions were: 1. It would seem that epilepsy is essentially a sensory phenomenon. 2. The essential lesion pertains to the nucleus of the cortical cells and jeopardizes the cells. 3. The chromatolysis is probably a nutritional change brought about by the jeopardization of the nucleus. 4. The rôle of the leucocyte in the cortex after severe convulsions is most probably that of the phagocyte. 5. The neuroglia proliferation in epilepsy is one of the more remote consequences. 6. Epilepsy is a progressive disease of which the status is the climax.

Dr. Schlapp said that he had had occasion to treat two cases of status during the past summer, and both patients had recovered. One had had thirty attacks in eight hours. She had then become stupid and had finally had hallucinations, the whole condition lasting two weeks. In both the cases there was such a large quantity of albumin in the urine that it became solid on boiling. He thought this condition was commonly present in the status. He did not think it was right to assume that the second or third layer of cells could be taken as sensory cells; so much depended upon the particular region of the brain. Most of these cells were now looked upon as associated cells, thus opposing the theory of Bruce.

Dr. Sachs asked whether in these cases of status epilepticus gross changes had been found that might, in some way, have been accountable for these cell changes. A number of years ago he had examined the brain of a child who had died in the status, and the one condition found at that time had been a very large subpial hæmorrhage covering almost the entire brain. He would like to know whether in the brains examined by Dr. Prout similar conditions had been found. If they had, it did not seem to him fair to determine the true pathology of epilepsy from patients who had died in the status. A truer knowledge of this pathology should be obtained from a study of the brains that had not undergone such secondary changes. The drawings exhibited showed cellular changes such as had been reported in a number of very widely different diseases of the brain.

Dr. Schlapp said that he had seen recently a case presenting hæmorrhages throughout all the membranes.

Dr. Leszynsky said that fifteen years or more ago he had published a paper entitled Epilepsy as a Cause of Death. In every one of the cases coming to autopsy there had been intense venous stasis, and in some a few small hæmorrhages. One of two of these patients died within two hours, and one after a single convulsion. A very competent pathologist had made the autopsies. At that time the most successful method of treatment of these cases had been by early venesection, and he had seen no reason to change his view regarding the efficacy of this treatment. The injection of chloral into the rectum was certainly very satisfactory. He had practised venesection because of the intense venous stasis, not only found at autopsy, but seen in the face of the patient.

Dr. Clark said that albuminuria had been frequently observed in the cases that they had studied, yet the quantity of albumin had varied greatly, and had not been at all in proportion to the severity of the seizures. In most of their cases there had been no systematized delusions present, and the delirium had resembled that of typhoid fever. A very large number of gross lesions had been found as the result of the severity of the convulsions. He had seen intense venous engorgement and hæmorrhages, though sometimes they had been absent in very severe cases of the status.

Dr. Prout said he did not wish to be understood as saying that the invasion of the cortex with leucocytes was characteristic of epilepsy. It was well known that such an invasion was marked in general paresis. He had only mentioned the fact as showing that the leucocyte was carrying off effete material. In speaking of the cells of the second layer, he had referred to them as sensory in contradistinction to those which we were accustomed to associate with motor phenomena. He did not think it had been conclusively shown that these cells were associational in character. Many of the sections figured showed the presence of punctate hæmorrhages.

A Government Medical Civil Service Examination.—The United States Civil Service Commission announces that on November 20, 1900, an examination will be held for the position of assistant in serum therapeutics, Biochemical Division, Bureau of Animal Industry, Department of Agriculture. The examination will consist of the subjects mentioned below, which will be weighted as follows:

Subjects.	*Weights.*
1. Letter writing (first grade)	10
2. Elementary general chemistry	20
3. Serum therapeutics	60
4. Training and experience in laboratory work	10
Total	100

Age limit, twenty years or over.

From the eligibles resulting from this examination it is expected that certification will be made to the position of assistant in serum therapeutics, Biochemical Division, Bureau of Animal Industry, Department of Agriculture, at a salary of $720 per annum, and to other similar vacancies as they shall occur. This examination is open to all citizens of the United States who comply with the requirements and desire to enter the service. All such persons are invited to apply, and applicants will be examined, graded, and certified with entire impartiality and wholly without regard to any consideration save their ability as shown by the grade attained in the examination. Persons who desire to compete should at once apply to the United States Civil Service Commission, Washington, D. C., for application forms 304 and 375, which should be properly executed and promptly forwarded to the commission.

The Medical Society of City Hospital Alumni of St. Louis.—The programme for the meeting of Thursday evening, October 18th, included the following titles: The Removal of More than Half of the Radius by Luetic Eburnation, by Dr. Riesmeyer; and The Early Recognition of Uterine Cancer, by Dr. H. S. Crossen.

St. Luke's Hospital, Cathedral Heights.—At the annual meeting of the St. Luke's Hospital Society, which was held on St. Luke's Day, October 18th, the committee of management of the hospital was elected, as follows:

Samuel D. Babcock, George Blagden, Waldron P. Brown, George A. Crocker, Chauncey M. Depew, Theodore K. Gibbs, Anson W. Hard, Woodbury G. Langdon, Benoni Lockwood, George M. Miller, Hoffman Miller, J. Pierpont Morgan, Jr., the Rev. Dr. Henry Mottet, Gordon Norrie, J. Van Bechten Olcott, John B. Pine, Moses Taylor Pyne, Charles Howland Russell, William Alexander Smith, J. Noble Sterns, Stephen Baker, William Fahnestock, and George W. Vanderbilt.

THE NEW YORK MEDICAL JOURNAL, NOVEMBER 3, 1900.

Original Communications.

AN OPERATION FOR LACERATION OF THE PERINÆUM; FAILURE OF MEDULLARY NARCOSIS.*

BY HERMAN J. BOLDT, M. D.,

NEW

GENTLEMEN: You have had an opportunity on previous occasions to see me operate upon patients under medullary narcosis effected in the ether-room; to-day I will have the method demonstrated, and have asked Dr. Goldan to kindly make the injection.

The patient is, as you can see, a stout woman, with a good deal of adipose tissue on her back. She was delivered four weeks ago with forceps, while suffering from acute uræmia. I was requested to see her two days subsequent to the delivery, to determine whether the extensive perineal tear which she had sustained as the result of the delivery should be repaired at that time. Owing to the presence of marked œdema and superficial gangrene of the soft parts, and the still apparent uræmic condition of the woman, an operation at that time was deemed unadvisable, but the suggestion was made instead that she be transferred to a hospital, because of the unclean surroundings in her home.

She has since been here and is now ready to be operated upon. I have elected medullary anæsthesia for her, because of the condition of her kidneys, the urine still showing the presence of albumin and, occasionally, casts. Either and chloroform anæsthesia should, if possible, be avoided under such circumstances, because it is the experience of many observers that that form of anæsthesia usually produces temporary nephritis. Although the albumin and casts, as a rule, disappear after a few days (generally after two or three), it is better, if it can be done, to avoid the new irritation to the kidneys in cases such as this.

The injection must be made under most rigid aseptic precautions; the back must be thoroughly scrubbed and the hands of the operator making the injection are cleansed as carefully as though a major operation were to be performed. The needle and syringe are boiled. Dr. Goldan is the first to advocate the use of a *gold* needle, of moderately fine calibre, attenuated at its end, and a stylet also of gold and likewise attenuated. The length of the needle should be from 6 to 8 ctm., and it should have a short bevel at the point.

The injection should be made between the fourth and fifth lumbar vertebræ, the opening between the transverse processes being greatest there. The point for the introduction of the needle is found by drawing an imaginary line from one iliac crest toward the other, over the spinal column; this strikes the fourth lumbar vertebra. About half an inch below and to either side of this is the place where the needle should be made to enter. The patient is now directed to incline forward, thereby arching the spine and causing a greater separation between the transverse processes. The doctor holds the needle near its end, to prevent its bending, and thrusts it quickly through the skin, this being the most painful part of the procedure. I have told the patient that she would be pricked with a needle, and told her not to move when that was done, so that she expected the pain and remains still. The needle is now pushed slightly inward toward the spinal canal; when the subarachnoidean space has been entered, resistance to the needle stops and the clear cerebrospinal fluid comes out of the needle drop by drop. Now you can see it, and it is necessary to perceive it, to be sure that the canal has been entered. A few drops are allowed to escape, and then the syringe which contains the cocaine solution is attached to the needle, and the solution is injected very slowly. All the solution being injected, we wait a minute or two before withdrawing the needle, and this is done just as slowly as it was inserted. The puncture point is now covered with a little collodion. The doctor has prepared the solution fresh. This should invariably be done. He boils the water in a test-tube for five minutes, and then adds enough cocaine hydrochloride to make a two-per-cent. solution, eighteen minims of which were injected.

The time which elapses after the injection is made, for the analgesia to be complete enough to operate in, varies as a rule from four to twenty minutes; yet, recently I have seen two failures. In the first instance no analgesia was produced at all, and in the second case it extended only up to the thighs. It was thought by Dr. Goldan that the reason for the failures was that the needle was too large, and that consequently the solution exuded again from the canal. I am not enthusiastic about this method of anæsthesia, and I do not believe that we are justified yet in giving it a permanent place in surgery. I have been told that several deaths directly traceable to the method have been reported. My hesitancy is based upon my experience with the drug more than fifteen years ago. After having had some unpleasant clinical experience at that time, I made a series of experiments on animals, to study its physiological action. The paper containing my observations was published in the first volume of the *New-Yorker medicinische Presse.*

The various symptoms which I observed and which were complained of then were: A suffusion of redness in the face, caused by distention of the capillaries; vertigo; acceleration of the pulse with diminution of its volume; very rapid, anxious breathing; an oppressive feeling about the chest, most marked about the cardiac region; dilatation of the pupils without reaction to light, but the conjunctivæ remaining sensitive to the touch; and muscular twitchings. In one instance there were unconsciousness and complete cessation of respiration, necessitating artificial respiration for about twenty minutes.

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*A clinical lecture delivered at the New York Post-graduate Medical School and Hospital.

after which spontaneous respirations returned, but only from 5 to 6 a minute, deep and sighing; the pupils were widely dilated, fixed, and staring; the gait, on the patient's walking, resembled that of an intoxicated person. Even when the drug was used in small doses, great weakness was experienced by some patients. A bitter taste was noticed by others. Pallor of the face, nausea and vomiting, profuse perspiration, elevation of temperature, muscular tremor, and ringing in the ears occasionally followed comparatively small doses when injected in the region of the trigeminus. The action of the drug was invariably more rapid and intense when the injection was made in the region of that nerve than when it was made in the extremities. In consequence of the variation in the susceptibility to the drug, I advised caution in its use until the idiosyncrasy of the patient was known.

The symptoms observed in my experiments on animals corresponded to those observed in the human subject, only that they were greatly intensified, much larger doses being used for the injections. The action on the respiratory centre always became manifest first. The effect on locomotion was seen to be dragging of the hind extremities, as though they were paralyzed, which sometimes was noticed almost immediately after the injection was made. The post-mortem findings were of the greatest interest in the central nervous system. The vessels of the pia mater of the brain and spinal cord were intensely congested, and there were minute extravasations of blood throughout the brain. The gray substance was distended with blood. The numerous convulsions which were present when fatal doses of the alkaloid were injected may account for the overdistention of the blood-vessels in the central nervous system.

Having noticed such intense symptoms when cocaine was injected in other parts of the body, I think we should be doubly careful when it is injected into the spinal canal.

We have now waited twenty minutes, and still there is no analgesia in the patient before us. Another injection will be made by the doctor and we shall hope for a better result. You again perceive the clear cerebrospinal fluid, and the needle is certainly small enough in calibre, so that there is absolutely no question as to the correctness of the technique. We will wait ten or fifteen minutes and then proceed to operate.

We have waited sufficiently long for the effect of the injection to show itself, but it is evident that in this instance it is a total failure and we must resort to general anæsthesia. This case is an illustration of what I have said—that cocaine varies in its effects; that in some, dangerous symptoms are produced by small doses, and in others the same quantity will not produce any effect. But, because we now and then have a failure from spinal injections, that is no reason for us to discard the method entirely, but we must endeavor to learn more about it, fix the proper indication for its use, try, if possible, to find the cause of failures, and overcome the trouble. I would, however, most urgently commend caution in the employment of medullary narcosis until the method is past the stage of experimentation.

Our patient now being under anæsthesia, I will proceed to operate. You see that the perineal tear is complete, it went through the sphincter and nearly two inches into the rectum. The vagina is also torn for a distance of about two inches. We first dissect the borders of the torn rectum sufficiently from the surrounding structures to permit of the union of the tear without tension. A continuous suture of fine catgut is used, beginning from above, and the needle passed in such a way that the mucosa is avoided. The tear in the rectum having been united, a large curved Hagedorn needle armed with silkworm-gut is thrust deep into the tissues and catches the torn sphincter on the left side of the anus; on the right side the sphincter is also caught in the suture, which is now tied. One suture has been sufficient in my experience for the sphincter. We now proceed similarly with the vaginal tear as was done with the rectal tear. As the result of the freeing of the edges of the torn vagina and the rectum, and the separate sewing of these structures, there is formed a deep pocket, which, when obliterated by sutures, makes the perinæum intact. In passing the needle to unite the perinæum, care must be taken that the rectum is not entered. The three sutures used are ample for the work; the passing of more sutures closer together would be apt to cause strangulation of the tissues between them, and, so far, I have not had a single failure when this method was used. Besides, the structures operated upon are in the same anatomical relation that they were in before the woman had sustained an injury. Finally, a rubber tube is inserted into the rectum to allow of the escape of flatus. After a week the silkworm-gut sutures are removed.

FULMINATING APPENDICITIS.*

By CHARLES A. WHEATON, M. D.,

ST. PAUL, MINN.

Mr. President and Gentlemen of the Mississippi Valley Medical Association: You have done me the honor to make me essayist on surgery at this meeting. For the sake of my auditors I wish this function might have fallen into more worthy hands, but with you lies the responsibility and I will do my best to merit your approval. The custom of the day is for the writer of such an essay to philosophize upon the surgery of the past, present, or future, or to offer an epitome of some surgical procedure of common interest, or some contribution, scientific in character, which shall add to the enlightenment of his craft and the welfare of mankind, to whom his life labors are consecrated.

The greatest enemies of the race to-day, from a medical as well as a surgical standpoint, are probably cancer and tuberculosis. All the world over, both have for many years received, still are receiving, and no doubt will continue to receive attention at the hands of the scientific workers qualified to deal with matters of such great importance. Both are omnipresent and are stalking among us night and day, torturing the body, disturbing the domestic peace, not only of families, but of communities, nay, even of nations, jeopardizing the longevity of the race, and begetting a progeny poorly caparisoned, physically, to discharge the obligations of the coming generations. The beneficent influence of our labors in opposing the onward march of these ghoulish pursuers is more and more apparent as the months go by.

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* The address in surgery delivered before the Mississippi Valley Medical Association, Asheville, N. C., October 11, 1900. [From advance sheets kindly furnished by the *St. Paul Medical Journal*.]

The ideal surgeon of the future will be possessed not only of the qualities of heart and hand which, in association, make good surgical timber, but will also be so well grounded in surgical pathology that his microscope will be the satellite of his knife in its various missions of mercy, and the combination will, I feel sure, take us nearer the surgical millennium, and will minimize the opprobium attaching to mistakes, because they will be fewer. He will shield the hopeless subjects from needless mutilation, and give to others the fullest measure of protection. The past half-century will go down in history as the grandest fifty years of medical progress in all the ages. The names of Morton, Sims and Lister will become immortal and will continue to shed the radiance of their glorious achievements for all time in the field of surgery. The vastness of the territory made possible for cultivation by the labors of these men is incalculable and the majesty of their achievements will grow with advancing years.

At the risk of incurring your disapprobation, I have selected as a theme for your consideration a subject which will seem to many of you trite and threadbare, but which to me carries with it the largest measure of danger to its unfortunate victims, of any of the acute surgical diseases. A review of the *Transactions* of this association at the meeting held in Chicago a year ago furnishes proof of the importance of the disease in question; in fact the reviewal of the transactions of the deliberative bodies in medicine and surgery the world over, impresses upon us the fact that this disease is a subject of constant, solicitous reflection in the minds of the great men in surgery and medicine in all the nations. It is needless for me to say that I refer to appendicitis; but I would deal in this brief article only with that form of appendicitis which we recognize as the "fulminating form."

I know of no acute surgical condition so fraught with danger to the patient and disappointment to the surgeon as this particular disease. I know of none other where early recognition and intelligent handling from a surgical standpoint, offers as great a reward for the labor expended. Ever since Willard Parker first incised the iliac fossa for appendiceal abscess, and Fitz gave to the medical profession an intelligent interpretation of the symptoms associated with inflammation in the right iliac fossa in the territory of the caput coli, this subject has received constant and painstaking study. The license given to the operating theatre by anæsthesia and the freedom from surgical infection made possible by our knowledge of bacteriology have, I think, contributed much to the unfriendly, undignified, and unjust criticism of the lay as well as the professional press. There are teachers of international reputation who advocate the removal of the appendix in every case in which the diagnosis is established, and to most of the surgeons of large experience I think this seems the safest solution of the question.

It savors a little of the ridiculous when scientific bodies of this character seriously deliberate upon the wisdom of prophylactic appendectomy as a means of protecting the human family from possible appendicitis in the years to come. We know that the proportion of inflamed appendices in the race as a whole is comparatively small, and that any surgeon should seriously contemplate sitting at the maternal outlet to seize and eviscerate the offspring immediately upon its escape from the mother's womb, seems hardly credible, and yet there are those who have seriously considered the wisdom of such a procedure.

I do not intend to attempt a disquisition on the subject of appendicitis in general, but to confine my remarks solely to that form of appendicitis which almost always in a few hours, if allowed to go unopposed, consigns its unfortunate possessor to the grave. I believe that, with the rarest exceptions, every case betrays in its clinical aspect sufficient warning for the properly educated and trained surgeon to form a correct opinion as to its probable outcome.

One of the most distinguished authors and teachers in the country not long since made the announcement that eighty per cent. of all patients with appendicitis would recover without operation. Ten years ago one of the most widely celebrated authors in medicine said, in his writing on this subject, that ninety-five per cent. would recover under opium treatment. The folly and the injury of both these statements grow in their enormity when we analyze carefully what they mean.

The surgeon in question knows that not three per cent., and in all probability less than one per cent., of the cases of the character to which I now refer, would end in recovery unaided by surgical intervention, and the medical writer who made this startling announcement that ninety-five per cent. would get well under opium knows, or ought to know, that he could not contribute more to the destruction of his patients than by putting into practice the theories he advocates in cases of this character.

It seems to me that the question is beyond argument. Suppurative peritonitis is, almost without exception, the result in fulminating cases, a result which is attained in anywhere from twelve to seventy-two hours from the time of the attack; and, if not recognized and treated medically, inevitably results in death, and, on the other hand, if recognized and scientifically handled surgically, will yield a mortality of less than fifty, and probably less than twenty per cent.

Almost every day I see the justice of the comments of an American surgeon some years ago when he discussed this question. He said: "Appendicitis is distinctly a surgical disease;" and I firmly believe that if the workers in the field of internal medicine could be brought to so consider it and would surrender their cases to the hands of the competent surgeon, they would not materially lessen their prestige and would materially contribute to the welfare of their clients. I do not believe that any case is so desperate unless the death struggle is actually on, that we should refuse to make an effort for relief.

Nearly twenty-five years ago, when I was a student in an eastern hospital, I saw my distinguished teacher, Dr. David W. Cheever, of Boston, make an incision into the abdominal wall for the purpose of draining a suppurating abdominal cavity. We knew nothing in those days of actual appendicitis; but he knew that the abdominal cavity was filled with pus, and he applied the only sensible remedy, and, strange to say, the patient recovered.

The remarks of the great Hunter in the latter part of the last century, on this subject, might be taken almost in the light of prophecy when we consider the following quotations from one of his *Lectures on Surgery:* "How far in such cases it might appear desirable to make an opening into the abdomen and throw in warm water repeatedly, to wash away the matter, I will not at present determine." This great man before the days of anæsthesia, before anything was known of bacteriology, saw with sufficient clearness into the possibilities of the future to make this suggestion.

If the life battle is waning and the life energies so rapidly fleeting as to make it unsafe to use general anæsthesia, I would under local anæsthesia in every case make one or more openings into the abdominal cavity in the most favorable locations and insure at least a partial escape of the hordes of enemies with which we know the peritonæum is waging this terrible struggle. In a small percentage of cases we shall be rewarded by success, and in proportion as those cases are early recognized and efficiently treated the percentage will increase.

Some ten years ago I was consulted by a young woman, twenty-three years of age, of strong physique and apparent good health. She saw me on Wednesday, complaining of what seemed a simple intestinal indigestion. Examination of the abdomen revealed absolutely nothing abnormal. I prescribed some simple intestinal astringent and advised her that she would probably be well in a day or two. The following Saturday, I being absent from the city, my partner was called and found that since the date of my visit on Wednesday there had been no movement of the bowels. He prescribed a calomel purge. This prescription was taken about nine o'clock in the evening. At two in the morning she was in collapse and died before daylight. A post-mortem was refused, but a judicious incision made for the purpose of aiding the embalmer in preserving the body, disclosed a huge abscess cavity in the right iliac fossa, and through the incision made at the crural arch escaped a large quantity of pus and a gangrenous appendix.

There was absolutely nothing in this case to suggest so grave a condition, and such a one will have to be recorded as, fortunately, a rare exception and one occasionally, but not often, encountered. I do not agree with those who say that the pulse and temperature have little significance. In cases of this character I think both have a great deal of significance. Not in all, but in the majority of the fulminating cases, there is a suggestion of malignancy in the aspect of the case from the beginning. The attack is clean-cut and incisive; a chill is often preliminary, followed by a temperature of 101°, 102° or 103° F. and a corresponding exaltation in pulse rate.

The right-sided pain, tenderness, and rigidity are present usually in the exaggerated form up to the time when perforation has taken place, when immediately follows apparent improvement and the symptoms all assume a favorable aspect, and when the uninitiated physician and the hopeful sufferer both believe that the danger point is past, when in reality it has just been reached, the damage has been wrought and death is the almost invariable result.

I will not burden you by transcribing from the proceedings of our meeting of last year, from the able and comprehensive article contributed upon this subject by Dr. Jelks, but I cannot refrain from transcribing the last two lines of that paper, ascribed to Dr. W. W. Keen, of Philadelphia, who uttered them in a discussion upon this subject at the Denver meeting of the American Medical Association: "If the patient is no worse after forty-eight hours of observation let him alone; let him get well." I believe such advice is sound; but I would go further and say that if such an attack were the second or third, as soon as he had recovered I would urge with every argument in my power that he go to the operating-room and have his appendix removed.

The general consensus of opinion among all surgeons, not only those belonging to the aggressive, but those also of the conservative school, is that in these fulminating cases, an early operation is the only hope of relief. If this is true, how necessary is it that every physician be educated as far as may be to the same view, in order that we may bring these sufferers to the operating-table before the chances of surgical relief are reduced to a minimum.

The case of fulminating appendicitis, when considering the subject of appendiceal inflammation from a statistical standpoint in attempting to establish the relative degrees of mortality, should occupy, to my mind, a special position entirely independent from the general list of cases.

To compare a simple catarrhal inflammation of the appendix with a malignant mixed infection, which is the usual cause of the fulminating form, would be like comparing a simple influenza with a double pneumonia or a sprained ankle with a crushed leg. They are just as different in their clinical expressions and results. The one will get well under the simplest medical treatment, and the other will eventuate in total destruction without competent surgical interference. If our medical confrères can be brought to realize that appendicitis in any of its forms, the majority of which may be considered by them not proper for surgical interference, is associated with so many uncertainties that only he who has had the widest experience in the handling of such is capable of giving the best advice, they would materially lessen the mortality of these diseases, as well as lessen the criticism, much of which is unjust, which comes to us because of the supposed indiscriminate use of the knife in all cases.

I have gone over my private records of cases of this character for the past few months, and find some twenty cases of fulminating appendicitis which were operated upon and gave a mortality of about fifty per cent. I feel sure that every case herein referred to had a period in its development when, if seen and carefully studied by a competent surgeon, it would have received proper treatment, and that the mortality would have been cut down twenty-five per cent. In these twenty cases the greatest age was forty-four, the youngest two years. In one case there had been three previous attacks, in five cases there had been one previous attack. In one case the duration of the attack was nineteen hours. This particular case was in the person of an officer in the regular army stationed at Fort Snelling, Minnesota. He had the good fortune to have for his professional attendants two of the most capable officers of the army, Dr. Borden and Dr. Shaw. He was a man considerably over two hundred pounds in weight, took his anæsthetic badly, and the operation was done at midnight by artificial light in an improvised operating-room in his quarters at the post. The appendix was gangrenous, although perforation had not actually taken place; the belly contained a quantity of turbid serum which was offensive. With the recovery from his anæsthesia his temperature had materially fallen, and in a few hours his convalescence was assured. Such a case treated with opium or treated medically would have undoubtedly resulted in death within twenty-four hours.

Of the other cases, the longest duration was four days. In that case there had been no previous attack, and, while the appendix was gangrenous, peritonitis was apparently localized, and this patient recovered. Four days was the longest and nineteen hours the shortest period from the inception of the attack to the time of operative interference. The list comprises twenty-one patients, twelve of whom recovered and nine died.

In these explosive cases, in the vast majority of those that I have encountered, the temperature and pulse are most significant. As before stated, there is "an indescribable something" in the very aspect of the case which stamps it as malignant. Of course, if it has gone sufficiently long to have the evidences of shock imprinted upon the surface, the gravity of the case would then be apparent to the most casual observer.

To refer again to the quotation from Dr. Keen, "wait forty-eight hours, and if the patient is no worse, let him get well," in the majority of cases this advice could be safely followed, provided the subject was under the observation of one qualified to correctly interpret the clinical picture.

When I am the attendant upon such a case I feel it incumbent upon me to watch it from hour to hour with the same vigilance that I would a case of prospective accouchement in which I knew the preceding labor had been associated with some dire complication.

If situated, as many of our professional brethren are, in the country, where their patients are remote and can only be seen at long intervals, obviously the safest and most conservative treatment would be to operate at once, knowing that the mortality rate of operations done early in such cases is much less than when the patients are left to themselves.

There is a symptom in connection with peritonitis which I have noticed in nearly all these cases. I have never seen it referred to in text-books or mentioned by anybody else, and when it is present it has always proved an unfailing sign of general abdominal suppuration. It is an apparent vasomotor paralysis which brings about a cyanosis of the trunk, notably of the abdominal region. It is, of course, only one of the expressions of a condition of shock which follows perforation and a general abdominal infection. In my experience it is present in varying degrees in all cases. If in a given instance the patient is allowed to go to his death, it precedes the grand finale but a few hours. It deepens until it becomes general, and we have the general cyanosis of rapidly deepening color, the leaky skin, the incoherence of faulty cerebration, and a speedy and merciful release from the suffering. In proportion as this cyanosis is pronounced or indistinct I have felt that I could express with reasonable assurance the probable malignancy of the infection.

Any acute attack of pain in the right iliac fossa, in the so-called McBurney region, associated with rigidity of the abdominal muscles, either with or without chill and a temperature of 102° F. and a pulse of 100 or more, should be watched constantly and with the most anxious solicitude, and if these symptoms increase in severity as the hours go by, every hour of delay in the application of the knife is, in my judgment, a cruel injustice to the sufferer.

In conclusion, I would reiterate that every case of appendicitis is and by right ought to be considered surgical, because the surgeon's training specially qualifies him to best interpret the meaning of the symptoms encountered.

Every case of so-called "fulminating appendicitis" should be operated upon as soon as its distinctive characteristics are known. High temperature and high pulse associated with local pain and rigidity are strong presumptive evidences of malignancy in the attack, and, if associated with the vasomotor disturbances before referred to, are practically proof positive of the condition of perforation.

I believe that the surgeon who refuses the only chance that drainage may give in even the most desperate cases, is false to himself and fails materially in discharging his obligations to his patient, obligations which his patient has a right to expect at his hands. A puncture in the median line, in the loin, or, in a woman, in the posterior cul-de-sac, under local anæsthesia, would not add to the danger of the condition and would materially aid Nature in this awful uphill fight. In short, in every fulminating case, operate first and philosophize afterward.

THE MODERN CÆSAREAN SECTION, AN IDEAL METHOD OF TREATMENT FOR PLACENTA PRÆVIA.*

By A. PALMER DUDLEY, M. D.,
NEW YORK,
SURGEON TO THE HARLEM HOSPITAL; PROFESSOR OF GYNÆCOLOGY IN THE NEW YORK POST-GRADUATE MEDICAL SCHOOL AND HOSPITAL AND THE UNIVERSITY OF VERMONT.

In making this statement and presenting it to you as the title of a scientific paper upon an obstetrical subject at the present time, I feel that I am probably subjecting myself to severe criticism, and possibly to censure from some of you, for endeavoring to inject a purely surgical procedure into the obstetrical art as practised under most modern improvements at the present day. My acceptance of the kind invitation of Dr. Foster to read a paper before the association at this time did not furnish me with the material for such a paper, but accident did, and when I have related the following sad history of a case that came under the observation of my assistant, Dr. Ward, not long ago, I believe you will agree with me that, if there is anything in modern surgery that can add to the obstetrical art, however modern the latter may be, it is for the interest of every man in the medical profession, who stands sponsor for the approaching life of the newly born, as well as that of the mother, to bear it well in mind. The following short history is that of the case I refer to, and I publish it with the permission of my assistant, Dr. Ward:

A Mrs. N., about twenty-two years of age, at full term with her second child, while preparing breakfast for her husband on the morning of December 22d last, was seized with a violent hæmorrhage. A hurry call was sent to the hospital at 7.15 A. M. At 7.45 A. M. two physicians were at the bedside of the patient, whom they found in a semi-conscious condition, pale and pulseless, from the loss of blood. Stimulants were administered, hypodermically, and every effort was made to stanch the hæmorrhage and cause the patient to react, but to no avail. At 8.45, with her child still *in utero* (one hour's time), she was dead, while her surroundings presented the appearance of a slaughter-house. It was later ascertained from the patient's relatives that two physicians from a neighboring homœopathic hospital had been visiting this patient for two months previous, and had informed her that her case was not a normal one, but had failed to give her treatment or enlighten her as to her true condition, and as a result two lives were, in my judgment, needlessly sacrificed. It was for this reason that I chose for the subject of my paper the foregoing title.

Is there any excuse for such wanton neglect and such loss of life in the obstetrical branch of our profession at the present day? I am positive there is not, and shall hope to be able to convince you that, as earnest workers for the advance of our profession, under any and all conditions and circumstances, the most important of which is the scientific care and delivery of the parturient woman, we can by skilful diagnosis and surgical treatment make placenta prævia a no more dangerous condition to the pregnant woman than many other conditions now considered of minor importance. How can this be accomplished? Only by thoroughly appreciating the fact that any pregnancy may be a pathological one from start to finish, and devoting the same careful study and attention to it during the progress as one would to any other known pathological condition. The time has gone by when the general practitioner or the specialist should look upon the condition of pregnancy as a physiological process, which Nature will take care of, and when he receives a call from his patient and is informed of her condition and her expected time of confinement (possibly many months away), he should not be content simply to make a note in his daybook of the date, and make arrangements to be at home at that time. I mean to say plainly that by such carelessness of the members of our profession many good lives are lost for which we are directly responsible. The statement was made not long since by a well-known obstetrician in New York, that it would be startling to note the number of hundreds of practising physicians in that great city who made no pretext whatever of examining women prior to the time of their confinement.

Schroeder has said: "It is better to let a woman take her chances and be delivered in a gutter than that the hand of doubtful surgical cleanliness should be placed in a vagina."

Many improvements can probably yet be made in the technique of obstetrical operations—it largely rests with ourselves. Döderlein concludes an article on the subject as follows: "Under existing conditions, in order to avoid puerperal sepsis, we are not called upon to improve upon Nature, by disinfecting the *viæ naturales* through which the child is born, but only have to carry out the old law to leave Nature alone, and allow her to act, as every examination, unless the hands are absolutely sterile, have certain risks. We must make none that are not absolutely necessary." With the first half of this quotation I agree most emphatically, and Whitridge Williams, of Baltimore, in a most conclusive and able article, read at the meeting of the American Gynæcological Society in Boston two years ago, proved to the satisfaction of that body that septic germs were rarely found within the vagina of the parturient woman. To the latter portion I must emphatically take exception. For the last decade has proved that the old law, "leave Nature alone," has lost the lives of many a mother and child. We are perfectly familiar with what we can do under proper aseptic conditions. I need not enlarge upon that point. No more conclusive argument ("that to leave Nature alone is bad practice") is needed than a paper read before the Obstetrical Section of the Pan-American Medical Congress, by Dr. Harris, of Paterson, New Jersey, in which he reports his method of performing rapid manual dilatation of the os uteri, and sets forth its advantages in the treatment of placenta prævia.

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*Read before the Maine Medical Association, June 14, 1900.

In his report he gives his experience with nine cases of placenta prævia, in six of which there had been no labor pains and the first evidence of danger was the occurrence of a profuse hæmorrhage. He proved his method to be an ingenious one by his success in rapidly dilating the os, in the cases he reported, but his ultimate results in saving the child are a powerful argument in favor of some other, and if possible better, method. I will not attempt to give a description of the method. You can find it in the *Transactions of the Pan-American Medical Congress*. Suffice it to say that the method requires the introduction of the whole hand within the vagina, while the fingers dilate the cervix.

Of the nine cases which he at that time reported, I make the following quotations from the histories:

Case I.—Bleeding for twenty-four hours before he was called. Placenta prævia. Rapid delivery, saving the child. Mother recovered.

Case II.—Primipara, taken with hæmorrhage during sleep. No pains. Seen in one hour; delivered in forty-nine minutes. Dead child; mother recovered.

Case III.—Eighth month. Hæmorrhage. Placenta prævia. Delivered in forty-five minutes. Child dead. Mother recovered after puerperal fever.

Case IV.—Same woman as in Case III, seven months and a half pregnant. With the previous birth she had had slight hæmorrhage at the seventh month and profuse at the eighth. Note the coincidence. Hæmorrhage during sleep. No pains. Delivered in twenty-four minutes. Child dead.

Case V.—Placenta prævia. Hæmorrhage at eight months and a half. Child living and well. Mother recovered without trouble.

Case VI.—Placenta prævia. Full term. Hæmorrhage. Delivery in forty-five minutes. Child dead. Mother recovered.

Case VII.—Similar. Placenta prævia. Eight months and a half. Hæmorrhage. Taken to hospital. Delivery in thirty-two minutes. Child dead. Mother lived.

Case VIII.—Hæmorrhage at eight months and a half. Rapid delivery. Child living. Mother recovered.

Case IX.—Placenta prævia. Hæmorrhage. Effort to make rapid dilation; failure; delay of one week; second hæmorrhage; second effort to dilate successful; delivery in fifty-five minutes. Child dead.

Nine cases of placenta prævia reported; nine mothers lived; one had puerperal fever; only three children out of the nine are saved. In all these cases profuse hæmorrhage was the first evidence to the mother that her pregnancy was abnormal. What was her obstetrician doing all this time? Observing the old law—"letting Nature alone." Note the result, the death of six children out of nine. Who was to blame? The mother who put her faith in her family physician, or the latter, who from his ignorance, his faith in the old law of Nature, or his willful neglect to make himself thoroughly acquainted with his patient's ante-partum condition? I think the latter. Dr. Harris was called as consultant in these cases. In each, profuse hæmorrhage had occurred before he came into the case. By his method of rapid delivery he saved all the mothers, but only three of the children. It is possible that after the occurrence of the hæmorrhages the child could not have been saved by any method, for the real danger to the child in placenta prævia is not so much from the hæmorrhage as from asphyxia due to interruption of the circulation to the child through the placenta. Certainly if the child is moribund from asphyxia, rapid dilatation and delivery *per vias naturales* would take precedence over any other method, provided it could be done without severely lacerating the mother—but the point I wish to emphasize in this paper is, that as we become educated in the art of aseptic surgery, in all branches of the science, the trend in obstetrics is to do and dare more for the sake of the child than in the past. The old axiom—the mother, never mind the child—is being forced into oblivion. How is this being done? Not by observing the old law, "Let Nature alone," but by making a careful and aseptic *ante-partum* study of our cases, perfecting our diagnosis in each case, and being able to detect pathological conditions sufficiently early to anticipate Nature and avert disaster. Note the almost complete disappearance of vesicovaginal fistula since Nature has no longer been allowed to take her own course, and the great diminution of cases of puerperal fever and the chronic conditions due to lacerations of the cervix and perinæum since the immediate repair of all injuries attending childbirth became a settled method of practice. Now, shall we cease with these, or shall we endeavor to still further advance, and relieve the mother and her offspring from danger still greater than all these mentioned? I say advance, and shall endeavor to show you that we are a long way on the road toward its accomplishment at the present time.

Bear in mind, gentlemen, that I am not advocating surgical interference with difficult labors, in which time and instrumental assistance, possibly with some injury to the soft parts, will accomplish the desired result—the birth of a living child—but am advocating a procedure for placenta prævia only, in which not only the life of the child, but the life of the mother, is placed in extreme danger without a moment's warning. I have said that we are far advanced toward the relief of this danger at the present time, and, inasmuch as I am addressing a thoroughly American audience, and have had sufficient social and scientific intercourse with the best intellect in the profession abroad to prove to my satisfaction that we need not go there for instruction, I shall quote only American authorities as evidence of my former statement.

The natives of India in the sixteenth century B. C. had sufficient knowledge of operative midwifery to enable them to do Cæsarean section upon women who were dying in parturition, in order to save the child; Hippocrates in his writings referred to this condition as one of great danger to the child, as it could not receive nourishment which should come to it through the placenta; Guillemeau, in 1596, gave Ambroise Paré and Hubert credit for successfully practising podalic version in cases of ante-partum flooding (although they neither of them advocated the advisability of interfering before labor commenced); and it fell to the lot of a woman, Louise Bourgeois, in 1609, to be the first to specifically advise delivery, whether the woman was in labor or not, although she did not recognize the fact that the hæmorrhage was due to the attachment of the placenta to the lower segment of the uterus and was caused by the separation of the latter from the uterus by dilation of the cervix.

It remained for Paul Portal, in 1685, to recognize and describe this condition and demonstrate it by a succession of cases. Gottfried Scharker, of Leipsic, also described and wrote upon the subject in 1709. William Giffard was the first to be given the credit for recognizing the condition and boring a hole through the placenta with his fingers and successfully extracting the child in 1734.

With such a record of skilful operative midwifery before us, that antedates by so many years the birth and development of asepticism, what should we on the verge of the twentieth century be able to do with our almost perfect knowledge of bacteriology and asepticism coupled with a perfect ante-partum diagnosis?

In an able article read before the University of Pennsylvania, January 19, 1899, by J. Clifton Edgar, of New York, in which he gave the results of the bacteriological examination of the secretions taken from thirty pregnant women just previous to confinement, he showed most conclusively that the usual habitat of the mischievous germs to which we now without hesitation attribute puerperal sepsis had their abiding place about the external genitals, and not within the vagina, and that their presence within the latter was easily traceable to careless methods of examination or manipulation without having previously thoroughly cleansed and sterilized the external genitals.

Williams, of Baltimore, as I have already stated, had previously shown from the careful bacteriological examination and study of the secretions of over a hundred pregnant women that the vaginal secretion was normally free from pyogenic bacteria. Such having been proved true, it is only a question of cleanliness, rather than carelessness, that may enable any general practitioner to carefully and thoroughly examine any pregnant woman during any month of her gestation, for the purpose of making himself thoroughly familiar with her condition, without in any way subjecting her to the dangers of infection. What excuse, then, has any man for being called hastily to stanch the hæmorrhage due to placenta prævia, and making frantic efforts to turn and extract a living child at one and the same time?

I leave it for your consideration, but some of you will say, as a well-known obstetrician in New York said to me a few days ago, in discussing the subject of this paper: "Why, you cannot make a diagnosis of placenta prævia until hæmorrhage has taken place." I contend that you can, and I believe that there are those present who will bear me out in this statement. The physical touch of the lower segment of the uterus is entirely different from that of one in which the placenta is located higher up, at or near the fundus, while even in placenta lateralis it is an easy matter to make a diagnosis of the true conditions if we bear these points in mind.

Even as early as the middle of the seventh month, if the child is in normal position the cervix will be sufficiently patulous to allow you to easily outline the child's head through the thin walls of the uterus, if no placenta intervenes.

Also, as early as above mentioned, if placenta prævia exists, the lower segment of the uterus will be spread out more than if it did not exist, the neck of the uterus will be less conical in shape, physical touch will indicate that dense tissue of more or less depth intervenes between the cervix and the child, while the placental bruit can be distinctly made out by digital touch. The whir of the blood through the structure is readily transmitted to the finger, while, if we listen with a stethoscope for the placental bruit in the position where it normally should be (the upper segment of the uterus), we should fail to find it, unless the case was possibly one of twins.

In cases of placenta prævia we cannot be sure that the child can take the normal position—the head presentation—owing to the position of the placenta, it is more apt to be a cross or breech presentation, in which case a knowledge of the fact that, if the fœtal heart sounds can be made out below the navel, we may be practically certain that the presentation is by the head, in spite of the placenta below it. If, on the contrary, the heart sounds are heard above the navel, it is more apt to be a breech presentation.

I was able not long since to make a diagnosis of placenta lateralis at four months and a half in a case in which the attending physician had made the diagnosis of fungous polypi in the uterus, owing to the repeated slight attacks of hæmorrhage, and I did it by carefully observing the conditions I have mentioned. The lower segment of the uterus was abnormally developed on the right side, and the whir of the blood could be heard as it rushed through the greatly enlarged uterine artery into the placenta on that side, while the left uterine transmitted a normal pulsation. The uterus was emptied and the patient made a normal recovery.

Time will not allow me to enter into a detailed analysis of all the physical signs made plainly evident by careful local examination instituted previous to the time of confinement, that should warn the attending physician he has to deal with an abnormal condition in pregnancy. In fact, it is not necessary, for it is already in print in the April number of the *Post-graduate* for the present year, in an article written by Dr. George L. Broadhead, adjunct professor of obstetrics, in which he gives a concise routine method of ante-partum examination of all cases of obstetrics brought to the lying-in department of the hospital. It would be well if every general practitioner, in caring for his obstetrical practice, would follow Dr. Broadhead's example.

I have previously stated that I would quote only from American authors for sufficient evidence to justify me in advocating Cæsarean section for placenta prævia, but the more one studies a subject the more he has to, and so I, in justice to those who have been and are my peers, beg you to indulge me while I retract a portion of my former statement and refer to the writings of Robert Barnes, Braxton Hicks, Simpson, and Tait as preeminent authorities upon this subject. But a careful search of the published utterances of all these great writers reveals no evidence of their ever having advocated such a procedure for placenta prævia.*

The nearest approach to such advice I find in one of the last published utterances of Mr. Lawson Tait, and I cannot refrain from quoting from his short article, published in the New York *Medical Record* for March 4, 1899, on the treatment of unavoidable hæmorrhage by removal of the uterus. He credits Simpson with the statement that all obstetrical authorities agree that there is no one complication in midwifery attended with more real danger to the patient than unavoidable hæmorrhage from placenta prævia. He credits Simpson with the statement also that forty per cent. of the cases prove fatal, but later on declares, after conversation with a number of confrères of large obstetrical experience, that the mortality is much greater in spite of the improved methods of treatment advocated by Simpson. It was his belief (Tait's) that the mortality would reach fifty per cent. if all cases were honestly and properly reported.

Tait reports fourteen cases, in which seven of the mothers died and only two of the children were born alive. He felt sure the full mortality of this condition was not known, so many patients died from secondary complications due to the injury of the misplaced placental sinuses by the method of rapid delivery, and the reports were not returned as those of deaths from placenta prævia, but from peritonitis.

Tait also refers to the attitude of the Church in this matter. It was the latter which influenced him on December 21, 1898 (while in consultation with Dr. Simpson, of Rugby), to suggest and perform hysterectomy for placenta prævia. He successfully extracted a female child, and the mother made a good recovery. But of what avail? The child died in a month, and the mother had lost her uterus.

Of course, you understand, gentlemen, I do not advise Cæsarean section unless the pregnancy is so far advanced that there is a prospect of having the child live.

In advocating the modern method of Cæsarean section for placenta prævia, I am not advocating the Sänger method of procedure—the long incision and eversion of the uterus from the abdomen before incising it—for I consider such a procedure no more modern than Semmelweis's treatment of sepsis was, as compared with that of the present day. Each instituted a procedure which the profession has developed during the past decade from a crude to practically speaking a perfect one. Therefore, in advocating a modern Cæsarean section, I want you to allow me to describe my own method of operating, and when I have finished you are at liberty to take your choice of methods, and I am sure that you will agree with me that the dangers of infection are minimized and practically no greater than in laparotomy for any ordinary purpose, if my directions are carried out.

First, it must be borne in mind that an anæsthetic, especially chloroform, jeopardizes the life of the child *in utero*. In each of my cases, although the child was removed in the short time of eight minutes, it was found to be profoundly anæsthetized and an assistant had to resuscitate it. I would advise, therefore, for the Cæsarean operation the administration of gas and oxygen combined, which will be found thoroughly efficacious and will minimize the danger to the fœtus.

The operation should be performed under constant irrigation with normal saline solution from start to finish, not a sponge being used unless one desires to dry out the peritoneal cavity, if by chance any of the saline solution has got into the abdominal cavity. The irrigation should be so arranged that it will flow in a gentle stream from a position directly above the abdomen and out of the way of the operator. An incision, not over six inches long, from above the bladder to within two inches of the navel, should be quickly made, exposing the uterus to good advantage. A piece of elastic tubing such as I show you here should be taken between the first and second fingers of the left hand and passed over the fundus of the uterus, and well into the pelvic cavity, and, while the hand is still in the pelvis, each ovary and tube should be lifted up and the ligature guided beneath them, that they may escape injury from pressure, while at the same time the ovarian and uterine arteries are thoroughly controlled by traction upon the ligature. The ligature should be drawn tight, half knotted, and given into the care of an assistant, who should sit between the patient's limbs. A second assistant will place a hand at either side of the upper angle of the incision and make steady and firm pressure against the fundus of the uterus. The traction made by the assistant upon the rubber tubing will keep the uterus firmly pressed against the abdominal walls below, and prevent any blood or amniotic fluid from entering the pelvis there, while the pressure of the assistant's hands above will secure the same protection to the general abdominal cavity as the uterus descends.

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*Since reading this paper I have been informed by Dr. La Torre, of Rome, Italy, that Dr. Mattoli, of Italy, in a case of placenta prævia centralis, in which all other means seemed only to augment the severe bleeding, transported the woman to the hospital and performed Cæsarean section. Both mother and child were saved.

The patient is now ready for the uterine incision. If, by chance, we should find, in making this incision, that the knife enters any portion of the placenta, we should not hesitate in at once going through it, and grasping the cord so as to prevent loss of blood to the child. The child is then firmly grasped by whatever portion presents and extracted as quickly as possible.

Bear in mind, gentlemen, all this work is being done under constant irrigation. The moment the amniotic fluid escapes from the uterine incision, it comes in contact with the normal hot saline irrigation. As the child is extracted from the uterus, the traction being steadily kept up upon the elastic ligature below and the firm pressure from above, the hot irrigation upon and within the uterus all have a tendency to produce a speedy contraction of the latter, which in fact takes place, so that as the child is withdrawn from the uterus the latter is extracted from the abdomen, having contracted sufficiently to be easily pressed through the small abdominal incision, and lies dependent over the pubic arch.

Irrigation being still kept up, the placenta is quickly removed, all shreds of membrane being carefully detached.

We now have to deal with the simple incision in a well contracted post-partum uterus. A sterile towel is thrown about the latter, protecting the intestines and maintaining them in their position in the abdomen. Catgut is the suture material I use and advocate. Three rows of continuous suturing are necessary, the first beginning from above and taking in the mucosa, the second from below and including the muscular structure in which lie the venous sinuses, and the third, the outer layer of muscular structure and peritoneal covering of the uterus. This latter row of sutures should only be allowed to appear on the surface of the uterus so as to include the peritonæum. This suturing should be done with a curved, non-cutting, round needle, so that bleeding will not follow in the wake of the needle punctures.

When the incision is closed, the traction on the ligature ceases, and not before. Usually some slight oozing will take place, which is quickly checked by packing the uterus about with towels wrung out of hot sterilized water. This process also produces firm contraction of the uterus. The rest of the work is finished as would be that for any ordinary laparotomy. (When the abdominal walls return to their normal condition the scar of the incision will not be over five inches long.) By this method any good operator should be able to extract the child in ten minutes and finish the work in from thirty to forty minutes, with a minimum of danger to the child and shock to the mother.

And here let me make the query, Wherein has the patient been subjected to any danger of infection that would for a moment weigh in the balance against those that would follow in the wake of the forcible introduction of the whole hand into the vagina, the rapid manual dilatation of the uterus, the turning and forcible extraction of the child, living or dead, and the consequent lacerations that must certainly attend such a procedure? I am firmly convinced that they are not to be compared; and the dangers which attend such forcible delivery *per vias naturales* are many times greater than would be that of sepsis supervening after such a method of Cæsarean section.

You will at once raise an objection and declare that such a procedure is impossible under the conditions that surround the general practitioner and his obstetrical work. I answer "Yes," and declare to you that it is not my purpose to advocate any such an undertaking by the general practitioner, but to endeavor to impress upon him that his first duty is to his patient and especially to her unborn child. And if he can by careful *ante-partum* examination make himself aware of the fact that his patient is in an abnormal condition of pregnancy, he will not depreciate his own reputation one iota, but on the contrary will add to it, by being able to tell his patient of her approaching danger, call proper counsel, and place her in some properly equipped institution under the care of a skilful obstetric operator who is already prepared to relieve her at the first warning of danger. Possibly this can be accomplished from election by a skilful operator, by rapid manual dilatation, version, and delivery, if the case is in a properly equipped maternity.

Dr. Marx, of New York, has written quite extensively upon this method and reported his success in quite a number of cases in an article read before the New York Obstetrical Society on October 1, 1895, in which he describes his method of delivery. His success in saving the lives of mother and child is not given, but he has now in preparation a report of his cases which will soon be given to the profession. However, I am not advocating rapid manual dilatation for placenta prævia, and offer as an apology for drifting from my subject my desire to do Dr. Marx full justice for the skilful work he has done.

Please bear in mind that I am not for a moment advocating that obstetrics should ever become a specialty, for in fact its associate, gynæcology, has passed away, as such, the general surgeon having absorbed it into his "trust." It is because of the greater skill of the trained obstetrician, acquired by long and diligent work in connection with some maternity hospital, that gives him an advantage over the general practitioner that is readily recognized, that I am advising the latter to study his cases previous to full term, in fact, become a good *ante-partum* diagnostician, and be able to call in assistance and save both mother and child from great danger, not the least of which may be (to the mother) a rupture of her uterus. Many cases are on record in which the uterus has been ruptured by the accoucheur in an effort to turn the child, and, as Mr. Tait very truthfully said, many such accidents are never honestly reported even to the Bureau of Vital Statistics. Rupture attended by fatal hæmorrhage and death of the mother is especially apt to occur in cases of placenta prævia because, the placenta being attached to the lower segment of the uterus, the latter is much more friable than otherwise and consequently apt to tear. I do not have to (but I could) report cases in which the brilliant turning and extraction of a living child have been followed by speedy death of the mother, that post-mortem examination has shown to have been due to a concealed rupture of some portion of the uterus, allowing of hæmorrhage into the abdominal cavity and consequent death. I have vividly pictured in my brain such a case that occurred in my own practice years ago. We say in this country: The mother first always. But it is not so in Catholic countries; consequently Cæsarean section for any purpose is not so frequently resorted to here. The Catholic Church is most emphatically opposed to sacrificing the life of the living child, and, while I was in conversation not long since with a well-known archbishop concerning the matter, he answered me with these words: The child is so placed by no will or effort of its own; its parents are responsible and they must take the risks if danger develops. He had rather that one of his people should have Cæsarean section many times than that one child should be sacrificed. You can readily see what assistance such advice would be to any general practitioner in his efforts to secure the best and safest treatment for his case. Edgar has characterized Cæsarean section as merely the removal by the knife of a foreign body from the interior of a hollow viscus whose outlet is partially occluded, but he fails to state that this foreign body is endowed with human life that may possibly be lost, and at the same time cost another. I should rather characterize modern Cæsarean section as the removal of one human body from within another with perfect safety to both, but thus far I have given you no tangible evidence, from reports of work done, that Cæsarean section is so free from danger *if properly performed.* However, such evidence is not lacking, if you will only interest yourselves sufficiently to become familiar with the many published reports of successful Cæsarean sections that have been performed during the last five years in this country alone. Just here I wish to emphasize what I mean by *properly performed.* First, I mean that an *ante-partum* diagnosis justifying the operation shall have been made; second, that the patient shall be placed under proper aseptic treatment previous to the operation; third, that the operation should be performed before the patient has become in any way exhausted—in other words, that the operation shall be an elective one. Under these conditions there is no reason why success should not invariably attend. One of the best evidences of the truth of this statement with which I am familiar is the report of fifteen cases, without mortality, by Dr. Edward Reynolds, of Boston, published in *Obstetrics,* Vol. ii, No. 1. I am not familiar with his method of operating. I do not know whether he made the long or short incision or everted the uterus from the abdomen before incising it. Either way, success attended in every case, and I am sure it was due to the care and judgment he used in the management of each one, and I quote from his report the rules which he adopted for his guidance:

1. That when the mother's vitality has been seriously lowered, by either septic infection, prolonged labor, or complicating conditions, the mortality of the Cæsarean section is so high that he deems it an unjustifiable operation, and advises resort to other methods.

2. That when the mother is in good condition, uninfected, not exhausted by long labor or by prolonged efforts at instrumental delivery, the Cæsarean section is so safe an operation that it may be resorted to unhesitatingly. Both these propositions of Dr. Reynolds's I most heartily endorse; the first, because my aim in discussing this subject to-day has been to show the general practitioner that it is unnecessary that his patient should be infected, and how he can protect her against it; that he should not allow her to remain in labor until she is entirely exhausted, and that if he made a proper *ante-partum* study of his case, complications that would endanger a successful delivery would be recognized by him in time to handle them before his patient was at death's door. I have already given you my reasons for endorsing the second proposition, and I believe that future experience will prove this opinion to be well founded.

Did I desire to drift from my subject, and enter into a discussion of the relative merits of Cæsarean section *versus* rapid manual dilatation and delivery by version, or resort to craniotomy, in cases of contracted pelvis, I should be obliged to prolong this paper to the tiresome stage. That is not necessary. Dr. Reynolds has ably discussed that subject in his article in which he gives statistics of 35 cases by Everks and 100 cases by Leopold, and repetition is unnecessary. I refer you to it and quote only his concluding remarks: "That if any one is sufficiently interested in the subject to look over the reported experience of the world, he will find, as I have (Reynolds) that the high reported mortalities of Cæsarean section are to be found among the neglected cases. If this is so—if the Cæsarean section under favorable circumstances is as safe an operation as I believe—is not the life of a child as good a reason for the performance of a simple abdominal operation, as the chronic backache for which such operations are daily performed?"

If these are the conclusions arrived at by one who has made a thorough study of the subject of elective Cæsarean section for conditions other than placenta prævia, and been able to justify his conclusions by fifteen consecutive cases without mortality, may I not be pardoned for giving expression to my belief that with the aid of the conscientious general practitioner, who realizes that his first duty is to his patient, and makes a careful aseptic *ante-partum* study of her condition, calling to his assistance, if necessary, the obstetrical operator, placenta prævia will be recognized sufficiently early to allow the family physician to place his patient where she will be surrounded by every safeguard against danger to herself and child, and her confinement one by election, and that by Cæsarean section, rather than rapid manual delivery.

A SOUTHERN HEALTH RESORT: CLIMATIC ADVANTAGES OF ASHEVILLE, N. C., AS A TEMPORARY RESIDENCE FOR TUBERCULOUS PATIENTS.

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THERE are obvious reasons why medical men resident in a health resort should be diffident about extolling its virtues, for, apart from the unprofessionalism of the thing, the mere suspicion that they were attempting to "boom" the place would ere long have a disastrous effect upon both it and them. That, however, is no reason why other medical men who are in no way interested in the resorts should practise a similar reticence. Rather the reverse, and indeed very much so, for, unfortunately, a vast number of people in every community are compelled by a cruel fate to take a deep interest in such places, and to be perpetually on the hunt for reliable information as to the most suitable sections of the country to go to for the recuperation of their own health, or for the salvation of those who are dear to them.

These remarks apply to all classes of invalids, but to none so powerfully as to that large army whose ailment is now properly engaging a large amount of attention—the sufferers from tuberculosis.

As a prefatory remark, I feel compelled to say that I have no claim to be regarded as an authority on this insidious and dreadful disease. My knowledge is only such as is common to the profession; but circumstances have conspired of late to force it prominently on my attention, and as I have travelled somewhat extensively, both in my own country and in Europe, everywhere to be met with the same inquiry, which I feel assured must ring in the ears of almost every member of the profession, "Doctor, where do you think is the best place for me to go for my lungs?" I have necessarily picked up a good deal of information on the subject. Incidentally, too, in the course of my peregrinations I have visited many places frequented by patients of the kind I am dealing with; and, besides hearing their testimony for or against those places as the case might be, have met and conversed with the resident medical men, and in these and other ways acquired no little local knowledge of different districts, whose climatic merits are wont to be discussed alike in professional circles and in the homes of tuberculous patients. The recent meeting of the Mississippi Valley Medical Association gave me an opportunity of investigating the claims of a resort I had not previously visited, and it is of it I should now like to speak. In so doing, I subject myself to the criticism of all the other medical men who were present on that occasion, and therefore realize the necessity of being particularly careful to say nothing which cannot be verified.

Situated on a tableau of mountain tops, 2,300 feet above the level of the sea, Asheville occupies a position at once picturesque and commanding. It is on the Blue Ridge of the Alleghanies, the highest range of mountains to the east of the Rockies, and the view to be obtained from the balcony of the principal hotel is said to include five different States of the Union. As a matter of fact, all that you realize seeing, is an apparently endless succession of higher elevations than that on which the hotel is built, the various peaks or nodulous summits clothed in the morning with vapory clouds which, at this time of the year, are speedily dissipated by the rays of the sun. From the intervening valleys, the smoke curling upward in the clear, frosty air, tells of human habitations near at hand, though obscured from view, while, farther off, the towers of Mr. Vanderbilt's palatial mansion, Biltmore, are to be observed above the surrounding eminences. Let it not be thought, however, from what is here said, that the place is far removed from the cheery haunts of men. If it were, it would be sufficient of itself to condemn it as a resort for invalids, who more than others require to be surrounded by, and have easy access to, a certain amount of congenial companionship, and are inspirited by the sight of human activity. At the rear of the hotel, and at a slightly lower elevation, is the town of Asheville. It is a bright and interesting little place, with an air of prosperity and comfort about it which many Southern, and even some Northern, towns might be excused for envying. Altogether, a decidedly pleasant place in which to spend a holiday and, still more, a period of convalescence.

And now, what about the climatic advantages of the place? Personally, I felt it in the highest degree invigorating as well as agreeable, as did also the vast majority of my fellow visitors on the occasion referred to. I cannot say absolutely all, for on the way home I must confess to having encountered one gentleman, an esteemed medical colleague from the Far West, who made no secret of his dissatisfaction with everything—from the mountains to the "moonshine" (and the latter, I may remark parenthetically, was nectar fit for the gods). What really ailed our friend I did not discover. It will suffice for present purposes to say that he was the exception that proved the rule. The rest of the company, which included not a few ladies, seemed delighted beyond measure, alike with the place and with the way in which they were treated during their stay—especially by the local members of the profession.

Doubtless, however, the experience of men and women in robust health will not be considered of much value, and, moreover, our visit was too brief to afford a good test of the climate. Neither, perhaps, would the enthusiastic testimony of the invalids we met, be considered conclusive, for cynics might say that they were possibly the happy few who had survived, and put pointed questions as to those whose tale could not be told because they had taken quiet leave of this vale of tears.

Aware of these facts, I made inquiries of the local doctors, with some of whom I had been acquainted before they settled in Asheville, and who were known to me to be trustworthy, as well as skillful in their profession. At first I was surprised at the apparent want of enthusiasm they displayed; but in course of time I came to see that this did not indicate any lack of faith in their adopted place of abode and sphere of usefulness, but arose from an acquired habit of restraining themselves from saying anything which might give rise to false hopes. A very usual remark to come from these gentlemen was, "Well, of course, you know no place agrees with all people." If, however, on hearing this, some one chanced to ask if that was all they could say in favor of the resort, the whole manner of the medical man usually changed, and, if in the proper company, he could be easily led into a candid statement of his views, which invariably was highly eulogistic of the resort, and none the less so because the language in which it was framed was well measured. It was under some such circumstances that one of the doctors referred to gave me a résumé of his own experiences.

"I do not know," he said, "whether you are aware of it or not, but the fact is, my original reason for coming here was because my own health was breaking down, and my own diagnosis, as well as that of a medical friend whom I consulted, was, that my lungs were seriously affected. The results of a short stay in Asheville were so satisfactory that I resolved to remain here, and I have never regretted doing so. My experience with patients, I am glad to say, has been equally gratifying. Now you ask how it comes about that Asheville produces such good effects? My answer is—We have a medium altitude, a moderate amount of dryness (for which see the Government weather reports), an excellent all-the-year climate, and a quality of air which I cannot scientifically classify, but which no one who has been in this town will doubt, and which, strange to say, is infinitely superior to, and different from, that to be found in similar altitudes in portions of the Appalachian chain not far removed from us. During last winter, I had a patient from exactly the same altitude in the Virginia portion of the chain who, while she had systematically gone down in her home climate, promptly began to improve in this, and frequently remarked on the, to her, peculiar fact that, despite similarity of altitude and general surroundings of the country, she found the air here much lighter, dryer, and more bracing, than at home."

Another medical man with whom I conversed, dwelt on the fact that any health resort, to be beneficial to the pulmonary patient in the highest sense, must be one which, after its beneficial effects have been exercised, can be left with impunity. "That," he remarked, "is not the case with some of the best resorts of this country. For example," he said, "the healing effects of the Colorado climate, while undeniable, are likely to remain only so long as the patient continues his residence there. So soon as he has returned to the climate from which he has come, he finds a rapid recurrence of his trouble, this being probably due to the fact that the patient misses the great altitude and great dryness which have become essential to him." As an illustration of this, he proceeded to relate to me the experience of a wealthy lady of Providence, R. I., who had been sent to Colorado Springs two years ago for her lungs. At the end of a year she was pronounced cured, and returned to her home, only, after a short stay, to break down again. Search for health in Florida, Georgia, and South Carolina proving ineffectual, she was brought to Asheville as a last hope, the husband telling the doctor in whose hands she was placed that he only expected him to make her end comfortable, cure, to his mind, being out of the question. In Asheville she built up and recovered health in a way she had never done before, and now, the physician informed me, she is in the enjoyment of excellent health, although the case had advanced so far before she went to Asheville that he doubted the advisability of her returning home. "Ordinarily," he added, "a patient not too far advanced in disease, who recovers here, is able to return with safety to his or her usual habitat, provided it is not too notoriously unhealthy. Every year examples of this kind are to be seen; and," he said, "this is certainly not the case with the very high altitudes as a general thing." It was a fact which, in his opinion, could not be too much dwelt upon in connection with the climatic treatment of consumptives.

A third doctor with whom I spoke, pointed out another advantage possessed by Asheville, which was that it was a most excellent all-the-year-round resort. The very dampest months, August and September, were not to be feared by the pulmonary patient. The autumn was beautiful, and was prolonged with rare exceptions to Christmas; and of the three winter months—January, February and March—two were generally beautiful, and, strange as it might seem, even that part which was bad had no harmful effect upon the pulmonary invalid. The summer, again, had the great advantage of having extremely cool nights, and one only suffered from heat, even in the general hot spells, if one exposed oneself directly to the sun's rays, the houses and shady places remaining always comfortable. An Ashevillean, he admitted, speaking in favor of his town, would naturally be looked upon with suspicion, and what he said would be accepted with a certain amount of scepticism; "but," he added, "I have yet to see one who has given the town a fair, and not too short, trial who has not been converted to faith in its climate."

Coming from a body of conservative medical men, statements like these cannot fail to carry weight; but I should be doing injustice to them, besides not acting candidly with the reader, if I did not mention that they were generally accompanied or followed by qualifying or cautionary remarks. Every member of the profession knows what absurd expectations many patients carry with them to a health resort. Perhaps they have limited their experimental stay to a month, or it may be that they have a prejudice against medicinal treatment. A dread of fresh air and of even gentle exercise are common to many, while a still larger number do not attach sufficient importance to regularity of diet. Such people defy the art of the physician and the healing effects of climate at the same time that they put obstacles in their way. They insist on one or the other—the physician or the climate—performing a miracle. That it is sometimes possible for them to do, but not always, and it is a mistake to encourage patients to expect anything of the kind. What was said at the outset cannot be too clearly borne in mind alike by pulmonary patients and their medical advisers, namely, that no climate agrees with all patients. The pulmonary patient must experiment with climate to find the one best suited to him, and he must give the climate, as he must give the physician under whose care he is put, a fair trial. From what I ascertained about Asheville, I should say that it is well for a patient to go there in the fall in order to get acclimatized. A month should easily settle the question of adaptability of the climate to his particular case and constitution. If unsuitable, it will not be too late at the end of that period to seek another resort. If, on the contrary, it suits, he has time to settle himself for the winter, and to learn under strict supervision how to live properly—an absolute essential to any pulmonary patient who would recover.

A notable advantage of Asheville which I have failed so far to mention, and which should always be remembered in view of the fact that the majority of pulmonary patients make their greatest improvements in cold weather, is the cold and bracing yet not too severe winter. In January, February and March there are generally two or three cold snaps in which at times the temperature goes well below zero, accompanied by falls of very dry snow. These spells are not of long duration, and snow rarely remains on the ground more than a few hours. What is of more importance in this connection, however, is the fact, vouchsafed for by all the local doctors, that during these spells their patients do better, feel more toned up, enjoy exercise more, and eat better, than at any other time. Aside from these spells, I was told, the winter weather may fairly be compared to a bracing October or November day in other parts of the country. Those, of whom there appear to be not a few, who go to Asheville expecting almost sub-tropical warmth, and prepared with only the thinnest of summer clothing, are certain to be disappointed; but since, as has been said, the majority of pulmonary patients make their greatest improvements in the coldest resorts, such as Colorado and Saranac, there are but few people whom the lowest temperature in Asheville would cause to seek warmer climates. As one of my medical friends summed the matter up—"The amount of sunlight is high. The good days when a patient can safely and advantageously remain out of doors are numerous, and there are also many days which may look inclement, but which are found not to be harmful to those who are accustomed, as all should be, to a proper outdoor life. But, short of the Desert of Sahara or Upper Egypt, and possibly Arizona, bad days come to all resorts, and certainly also to Asheville."

Physicians, it seems to me, could render an important service to their brother practitioners, and through them to the public, by furnishing through the medical press reliable information as to the suitability of the climate of different localities for particular classes of invalids; in the foregoing lines I have made a humble attempt to give a brief, but I trust not uninteresting or exaggerated, account of what I experienced and learned regarding the principal resort in the far-famed "Land of the Sky."

A CASE OF PARALYSIS OF THE RECURRENT LARYNGEAL NERVE; RECOVERY.

By JOHN F. CULP, M. D.,

HARRISBURG, PA.

Since recovery from recurrent laryngeal paralysis is comparatively rare, the writer considers this a sufficient reason for the publication of this case.

W. C. F., an attorney at law, aged thirty-six years, residing in Harrisburg, on the evening of January 27, 1900, while visiting a distant city, was engaged in talking to some friends and smoking a pipe at the same time. He suddenly discovered, in the course of the conversation, that he was unable to speak above a whisper. He thought at first that he had drawn some tobacco into his larynx, though there was no cough or choking sensation.

On his return home he consulted his family physician, who told him that he had probably contracted a cold and that he would soon be all right. His voice did not improve, however, and when he consulted me, on February 19th, he had in addition a harsh, barking cough, which was beginning to be troublesome. The voice was husky and rough, the harsh, jarring sounds rapidly passing into a whisper. Examination of the fauces showed nothing unusual beyond a slight increase in redness, probably due to irritation caused by efforts in talking. Laryngeal examination showed an acute laryngitis of moderate severity; the left vocal was in the cadaveric position, *i. e.*, midway between the phonation and quiet inspiration positions. The edge of the cord was slightly concave. In phonation the movements of the right vocal cord showed a wider range than normal. The right arytænoid crossed over the median line of the commissure and took a position in front of its opposing fellow.

There was no anæsthesia of either larynx or pharynx. Owing to the inability to regulate the intervocal cord calibre, there was an abnormal escape of air, especially on phonation. The patient, a man of unusual intelligence, a public speaker and possessed of a powerful voice, stated that he had been in his usual good health when first attacked. At the time of his coming to consult me, three weeks after the trouble began, he was somewhat run down in health as the result of overwork, too much tobacco, and nervous worry about his condition. A most careful examination of his chest and neck failed to show any reason for suspecting compression of the recurrent laryngeal nerve. The family history was negative. The patient had had diarrhœa for the past fifteen years, with sometimes as many as six to eight stools daily. All previous treatment had failed to relieve him.

A diagnosis of probable neuritis of the recurrent laryngeal nerve was made.

Treatment.—Abstinence from tobacco and rest of the larynx as much as possible. For the first week the fauces and larynx were sprayed several times daily with benzoinal and menthol. This afforded much relief. Tincture of nux vomica, 15 drops three times a day, was then prescribed, to be increased one drop at each dose. The constant current was applied to the side of the neck and to the larynx daily, the negative pole being placed on the back of the neck. The patient rarely could tolerate more than 2½ ampères, with a voltage of 25.

Later, the combined current was employed in the same manner. The benzoinal and menthol sprays were continued, as well as the nux vomica, of which as many as 35 drops were taken three times a day. The diarrhœa, which had persisted for fifteen years, disappeared almost from the first dose of this medicine.

The patient constantly improved, in general health as well as in the laryngeal conditions. The voice gradually grew stronger; at first the adductor muscles regained their power, and then the abductor muscles recovered their strength, more slowly, however. On April 23d Mr. F. discontinued treatment, saying that he was well and never felt better in his life. At this time the abduction of the vocal cords was not perfect.

On July 23d, six months after the beginning of his trouble, an examination showed a perfectly normal larynx.

Although the writer has seen many cases of unilateral paralysis of the recurrent laryngeal nerve in the large European throat clinics, he has never personally seen a recovery, which fact constrains him to make mention of this case. That a good general knowledge of the practice of medicine is an essential equipment of the laryngologist, he considers has been demonstrated by the history of this patient.

211 Locust Street.

SUPPOSED GLIOMA OF THE RETINA; ENUCLEATION; NO RETURN IN TWELVE YEARS.

By DAVID WEBSTER, M. D.,

NEW YORK.

Cornelius Creem, of Brewster, was brought to me by his mother when he was two years old, on account of the condition of his right eye. This was in February, 1888. During the previous summer his mother had noticed that the eye looked larger, that the pupil was of a yellowish color, and that the globe seemed to be semi-transparent by transmitted light. For the past two weeks the child had been fretful and seemed to be in pain. The tumor had grown outward and had produced a bulging at the superonasal and anterior aspect of the globe. The sclera and ciliary body were thinned and pushed before the tumor. As the history and the present condition seemed to indicate very clearly the presence of a glioma of the retina, enucleation was advised, and, the mother consenting, the eye was enucleated without delay. It was handed over to the gentleman who was then the pathologist of the Manhattan Eye and Ear Hospital for microscopical examination, but, unfortunately, no report was ever received from him as to his findings. The little patient recovered smoothly from the operation and was taken home, and I did not hear from him until recently, when he wanted to know whether he could wear an artificial eye. At my request, he came to see me on September 18, 1900, twelve years after the enucleation of the (supposed) gliomatous eye, he having attained the age of fourteen years. I found him to be a strong, healthy boy, large for his years, his left eye having vision $\frac{20}{20}$, and accepting no glass. There had never been any indication of the return of the tumor. The orbital cavity was somewhat contracted, and there were some cicatricial adhesions at the outer canthus, but not enough to prevent him from wearing an artificial eye.

The case is of interest principally on account of the non-recurrence of a supposed glioma of the retina. Such cases are, in my experience, very rare.

327 Madison Avenue.

A CASE OF SUDDEN DEATH PROBABLY DUE TO PULMONARY EMBOLISM.

By J. SHELTON HORSLEY, M. D.,

EL PASO, TEXAS.

In the *New York Medical Journal* of November 25, 1899, Dr. George P. Biggs gives a report of five cases of sudden death from pulmonary embolism following injuries or operations in the pelvic region. Although I was unable to obtain a necropsy in the case reported below, the symptoms and conditions correspond so closely to those mentioned in Dr. Biggs's paper as to make it highly probable that death resulted from pulmonary embolism.

A farmer, thirty-two years old, had been suffering from "bladder and kidney trouble" for about ten years. There was no history of venereal or tuberculous disease, and all his children were healthy. He was referred to me by Dr. J. D. Love, of Safford, Arizona, on November 2, 1899. The patient said that for the preceding eighteen months he had suffered so much from his bladder that he was unable to work. Examination of the bladder revealed the presence of calculi. The urine was about neutral in reaction, and contained a large amount of pus, some blood, albumin, granular casts, and phosphates. On November 4th I did a suprapubic cystotomy, under chloroform anæsthesia. The bladder was distended with air. Its walls were very much thickened, and numerous calculi clung to them throughout. A few concretions were loose in the bladder. They felt rough, not very hard, averaged about a fifth of an inch in diameter, and consisted of phosphatic formation. After their removal, the bladder was irrigated with boric-acid solution and drainage provided for. The patient did well until November 7th, when symptoms of urinary suppression occurred. Under the administration of large quantities of distilled water and milk, with some digitalis, these symptoms entirely disappeared by November 10th, and the patient advanced in convalescence uninterruptedly until the 19th. On that day he was allowed to sit up. He felt perfectly well, and the wound was in excellent condition. The nurse carefully lifted him to a sitting posture in bed, when he suddenly gasped, turned purple in the face, and complained of pain in the region of the heart. I was summoned by telephone, and reached the patient in five minutes. The heart was faintly fluttering and his face still bluish. His heart stopped entirely within seven minutes from the time of the attempt to sit up. Unfortunately, it was impossible to obtain a necropsy.

Therapeutical Notes.

Formulæ for the Treatment of Bronchiectasis with Fœtid Expectoration in Children.—The *Gazette hebdomadaire de médecine et de chirurgie* for August 30th ascribes the following to Porcelli:

℞ Neutral acetate of lead, Terpine,	of each, from 22-100ths to 45-100ths of a grain;
Dover's powder	from 1½ to 3 grains.

M.

For one pill. From three to four pills daily for a child aged twelve.

From time to time the use of these pills should be suspended and be replaced by the following mixture:

℞ Guaiacol, Fowler's solution of arsenic,	of each . 120 grains;
Eucalyptol	60 "

M.

From ten to twenty drops to be taken morning and evening.

Hypodermatic Injection for Tuberculosis.—The *Journal des praticiens* for September 8th ascribes the following to Laborde:

℞ Guaiacol	300 grains;
Eucalyptol	150 "
Sparteine sulphate	15 "
Oil of sweet almonds . . . . . q. s. to make 3,000 grains.	

M.

About eight drops are subcutaneously injected at first and the dose is gradually raised to from 75 to 105 drops. The injections may be repeated every two or three days without fear of symptoms of intolerance. Ergotin may be introduced into the formula to prevent hæmoptysis.

Zollner's Creosotal Emulsion.—Zollner, a Löffingen apothecary (*Süddeutsche Apotheker-Zeitung*, 1900, No. 65; *Deutsche Medizinal-Zeitung*, September 6th), has devised the following formula:

℞ Powdered gum arabic	20 parts;
Oil of sweet almonds	40 "
Creosotal	20 "
Distilled water	45 "

M.

Mix while stirring briskly. In a few minutes an emulsion will be formed, to which are to be added:

Water	15 parts;
"Peru-Cognak"	50 "
Lemon juice	10 "

For Sub-conjunctival Injection in Chorioiditis.—The *Gazette hebdomadaire de médecine et de chirurgie* for August 30th ascribes the following to Tourdille:

℞ Iodine	from 15-100ths to 30-100ths of a grain;
Potassium iodide	15 grains;
Boiled distilled water	415 "

M.

For external use. Every two or three days from four to five drops of this solution are to be injected under the bulbar conjunctiva. Later, when the eye is accustomed to the treatment, the number of drops injected each time may be increased to ten or even to fourteen. These injections, which are but little painful, provoke slight chemosis which, however, disappears in from twelve to twenty-four hours. The favorable effect of this treatment is perceptible at the end of two or three weeks in the diminution of floating bodies and the relief of scotoma as well as by the augmentation of central visual acuteness, even in cases of macular chorioiditis.

To Relieve the Itching of Psoriasis.—Dr. John V. Shoemaker (*Medical Bulletin*, September) prescribes the following:

℞ Salicylic acid	1 drachm;
Resorcin, Carbolic acid, Calcium sulphide,	of each . . . . ½ a drachm;
Zinc ointment	1 ounce.

M.

To make an ointment.

Salipyrin as a Specific in Influenza.—*Clinica moderna*, No. 38, 1900 (citing *Wiener medizinische Presse*, No. 11, 1900), says that, according to Fuerst, salipyrin is a specific against influenza. It combats the disease from its initial symptoms without giving place to any effect, other than some depressing action upon the heart. It is administered for two or three days in from 7½ to 15 grains for a dose, two or three times daily. The muscular pains, headache, fever, and other symptoms nearly always yield readily to this remedy.

Sodium Sulphate in the Colitis of Children.—At a recent meeting of the Paris Society of Pædiatrics (*Indépendance médicale*, October 17th) M. Aviragnet expressed his preference for sodium sulphate over ipecac, calomel, and enemata in the treatment of the acute colitis of children. To children several years old he gives it to the amount of from two drachms and a half to three drachms and a half for the first day, in divided doses, and then from half a drachm to a drachm.

Sparteine and Potassium Iodide in the Cardiopathies of Arteriosclerosis.—*Clinica moderna* No. 38, 1900 (citing *Semaine médicale*), says, on the authority of Carrieu, that in the case of sclerotic arteries, digitalis, which augments arterial tension, is not suitable. In such cases sparteine, which has no influence on the tension, associated with potassium iodide, is preferable. The following formula is given:

℞ Potassium iodide	from 7½ to 15 grains;
Sulphate of sparteine	1½ "
Syrup	1,350 "
Syrup of bitter orange peel	450 "

M.

This amount to be taken in the course of a day.

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ENDOMENINGEAL SPINAL COCAINIZATION.

AMONG the material which we are enabled to lay before our readers in this week's issue there are portions which, we think, may well be pondered by those who are contemplating the employment of this method of inducing anæsthesia. They include Dr. Boldt's clinical lecture, the reproduction of Dr. Corning's original article on the subject, which appeared in our columns fifteen years ago, and the discussion that took place at last week's meeting of the Section in Obstetrics and Gynæcology of the New York Academy of Medicine. At all events, they are to us confirmatory of the stand we took last week, and on some points would induce us to go further than we then went.

It is to be noted, in the first place, that the attempt to produce analgesia by injecting cocaine beneath the meninges of the spinal cord is very apt to fail. It was a failure in Dr. Boldt's case, though twice performed by Dr. Goldan, an acknowledged expert, so that it can hardly be said that the lack of success was due to any technical fault in that instance. Then, too, we have Dr. Bogart's statement of his seven failures in twenty-five cases. Moreover, even when the method does succeed, the analgesia is of uncertain duration. It may last, we are told, as long as five hours, but in one of Dr. Dudley's cases it endured for only thirty-two minutes, and that gentleman was fully justified in calling attention to the difficulty of repeating the injection in such an operation as that of abdominal section.

As to the alleged safety of the procedure, even if no deaths had been rumored to have followed it, our experience with it is far too small thus far to warrant the statement that it is absolutely safe in obstetrical practice, coupled or not with the theory that in parturition the cerebral condition is antagonistic to the harmful action of cocaine. But, theoretical considerations apart, we have Dr. Goldan's declaration that he has seen symptoms of cocaine poisoning in an obstetrical case. Notwithstanding the fact that Dr. Grandin did not feel at liberty to give the names of the two persons who had informed him of the fatal results that had been spoken of in Paris at the time of the recent International Medical Congress, although Dr. Marx protested against allowing any weight to anonymous testimony, the conscientious reader, we cannot doubt, will be much impressed with what Dr. Grandin said in confirmation of what we were careful enough to call rumors in our last week's article.

Now, with regard to the unpleasant effects: Dr. Dudley reports that the headache may be as severe as that which occurs after the use of a general anæsthetic, and Dr. Goldan says it occurred in half his cases, also that in a few of them there was rigidity of the muscles of the neck and back, which in one instance lasted for a week. A physician has recently told us of a case of labor in which the endomeningeal employment of cocaine produced headache that lasted for three days and was so severe that the patient declared she would have preferred to bear the pangs of childbirth without an anæsthetic. Dr. Dudley speaks of the annoyance due to retching and involuntary evacuations during an operation. It has been maintained that the after-effects are solely those of the puncture itself. We cannot concede this, but, if we could, when a procedure is found to be dangerous or unnecessarily distressing, we are unable to see what is gained by fixing upon any one element of it as the source of trouble, provided that element is unavoidable.

Dr. Goldan, an anæsthetist of large experience, agrees with us in the opinion that most persons about to submit to an operation of any magnitude prefer to be rendered unconscious as well as insensible to pain, and he would restrict the method of anæsthetization in question to cases unsuitable for the use of a general anæsthetic. With this restriction, it may be tolerated; we are not denying the possibility that in rare instances it may be preferable to all other procedures, but we must repeat our expressions of apprehension of the probable effects of its general adoption. Even if it is to be resorted to only in exceptional instances, however, let us learn all we can about it. With this desideratum in view, it is interesting to note Dr. Goffe's statement that in France he had seen a tumor of the breast removed with the aid of this form of anæsthesia, and was under the impression that the rapid or forcible injection of the cocaine caused the analgesia to extend to a higher limit than was usually observed.

SANITATION IN THE FIGHT AGAINST CONSUMPTION.

Every well informed and reflecting physician knows that it will not do to concentrate our efforts in any particular direction to the exclusion of other points. The segregation and enlightened treatment of persons actually affected with tuberculous disease, as well as measures for destroying or sterilizing their sputa, are indispensable, but one great element in any successful strife against the spread of the disease lies in strengthening the resistive powers of persons who have not yet been attacked, and chiefly by improving the homes of the poor and their modes of life. This was very effectively pointed out by Dr. Beverley Robinson, of New York, in the January number of the *St. Louis Courier of Medicine.*

If we admit, says Dr. Robinson, that without the bacillus there is no tuberculous disease, yet, even with the bacillus, there must be the soil ready or prepared for its growth and development, with all its evil consequences. In a healthy individual, he thinks, it is more than probable that the bacillus will prove innocuous, for it will meet with a barren soil and, taking no root, will breed no disease; susceptibility, hereditary or acquired, must exist, or the microbe's attack is ineffective—literally, it does little or no harm to persons who are in perfect health. On this point, we think, the profession is quite in accord with Dr. Robinson; indeed, the opinion he expresses seems an almost unavoidable inference from the observation that so many escape the disease throughout a long life, although practically exposed to it well-nigh continually.

Dr. Robinson would have legislation enforcing an adequate supply of pure air in the tenement-houses, with the free penetration of sunlight and cleanliness made obligatory. Perhaps it is not practicable for legislation to do more in these directions than to enforce a certain minimum of requirements; but, seeing what reforms have already been brought about in the sanitary surroundings of the poor, mainly as the result of medical teaching, we may confidently hope for a speedy and ample extension of these improvements—with legislation if necessary, but independently of it by preference.

MEN'S NAMES IN MEDICAL TERMS.

It is not difficult to foresee that a reaction must sooner or later set in against the well-nigh insufferable practice of attaching men's names to clinical terms. The communism of science at the threshold of the new century is such that there is nothing that can be so closely identified with a man's name that his patronymic must be forever linked to the designation of that which he discovered or devised. Of course, there are some noteworthy exceptions in which the use of persons' names is perfectly proper, but such cases are very few in comparison with the hundreds that swell the medical dictionaries and wear out the upper-case letters of the medical printer's font. Such an exception, for instance, is the use of a man's name to denote a new and obscure disease temporarily, until a descriptive or otherwise characteristic name can be found, or the use of a bacteriologist's name to distinguish one variety of micro-organisms from another when each is alleged to be the ætiological factor of a given disease, but yet no definite proofs have been given as to which of these germs is the specific cause of the infection.

Perhaps no other science, with the possible exception of botany, has so many terms in which men's names figure as medicine has. Indeed, the tendency to abolish them is strongly shown in other sciences. In electrology, for example, the adjectives franklinic, galvanic, faradaic, and the like, and the standards of measurement, such as the ohm, the ampère, and so forth, are losing their personal allusion with their capitals.

Every literary physician knows how difficult it is to search for references to a condition that has half a dozen names, including perhaps those of two or three individuals. The work of the indexer, the librarian, and the editor is multiplied many times thereby, for cross-references must be written for every one of these names. It is well if they are written, but the indexer, especially if he is an amateur (for instance, an author indexing his own volume), very often neglects to insert these cross-references; and then what loss of time and temper, what premature gray hairs, and what work for the recording angel when that index is consulted!

The endless confusion which will ultimately result if personal terms are applied to every new disease and to every new clinical fact may be realized upon a moment's reflection. Every one knows what Pott's disease is, and yet, in addition to tuberculosis of the spine, there are no fewer than four conditions described by Percival Pott to which this name may be applied with propriety—Pott's aneurysm, Pott's fracture, Pott's gangrene, and Pott's puffy tumor. There are five different clinical signs that bear the name of Gerhardt, and each is spoken of as Gerhardt's sign. Trousseau's historic name is appended to three clinical symptoms and to two diseases. Other names that are attached to two or three diseases in each instance are those of Bell, Charcot, Cooper, Corrigan, Duchenne, Friedreich, Huguier, Paget, Parrot, and

Strümpell. Finally, when two or more writers are named in the designation of an affection, we have such tapeworm-like combinations as the Charcot-Marie-Tooth type of progressive muscular dystrophy.

Let us discourage the unnecessary multiplication of such terms. Let us use the common names of diseases or their English equivalents in preference to those that bear the names of their discoverers. Unsatisfactory as many of these names may be, they are always more connotative than the personal names, for proper names, according to logicians, after all, do not mean anything except as they serve to distinguish one individual from another. The use of them in nomenclature is opposed to the spirit of the age and to the dictates of common sense. Let the record of a man's work form a part of the contemporaneous history of medicine, and let it not be written on the pages of medical dictionaries, the catalogues of instrument-makers, and the labels of the manufacturing chemists.

THE OVERTASKING OF SCHOOL CHILDREN.

There is a movement among some of the physicians of Cleveland to induce the school authorities to reduce the tasks set for the children to such an extent as to relieve them from the necessity of studying at home out of school hours. We hope they will succeed; not that we are prepared to say that study at home is more taxing than study in the school-rooms, but we do believe that too much work is generally demanded of the children, and that their health often suffers as a consequence.

SHAVING OF THE HEAD FOR IMPENDING BALDNESS.

The time-honored practice of shaving the scalp to put a stop to falling out of the hair, in which the laity have great faith, seems to have been losing favor with medical men of late years, but in the *Monatshefte für praktische Dermatologie* for October 15th we find an article by a Turkish physician, Dr. Menahem Hodara, of Constantinople, who reports excellent results from the practice in a number of cases. He has the head shaved once or twice a week from five to ten times, and directs cleansing and stimulating applications in the intervals.

MOSQUITOES AND YELLOW FEVER.

At the recent Indianapolis meeting of the American Public Health Association, Surgeon Reed, of the army, gave an account of certain researches, in conjunction with Assistant Surgeons Carroll, Agramonte, and Lazear, going to show that the mosquito is the bearer of the germ of yellow fever. These researches are confirmatory of Finlay's theory. Coupled with recent investigations of the part played by mosquitoes in spreading malarial disease, they teach the importance of dealing vigorously with the mosquito.

AN INSTANCE OF MISDIRECTED PHILANTHROPY.

The *Province médicale* for September 15th quotes from the *Gazette médicale de Paris* an account of the strange doings of a benevolent woman who, having established a home for victims of infectious diseases, whenever she finds her institution depleted by death, makes a trip from Limoges, on the outskirts of which town it is situated, to Paris, where she takes from the general hospitals sufferers whom she thinks suitable for her hospitality, mostly persons in the last stages of consumption. She marshals them to Limoges, to their own detriment and, it appears, to the peril of the neighborhood. The mayor of Limoges has consequently forbidden the establishment or maintenance of such homes, and the Minister of the Interior is said to have approved of his course, but it is feared that the misguided philanthropist, Mlle. Noualhier, has influence enough with the Council of State to render it nugatory. Sanatoria are needed for the curable consumptives and those whose disease is reasonably susceptible of mitigation, but those who are in a dying condition may quite as well be left in the general hospitals.

NAVAL BARRACKS *VERSUS* RECEIVING SHIPS.

Some months ago Rear Admiral Crowninshield reported in favor of the substitution of naval barracks for the dilapidated and insanitary receiving ships that now serve as the temporary homes of recruits, and Surgeon-General Van Reypen heartily advocated the change, but it passed unheeded by the last session of Congress. One of the newspapers, the *New York Times*, has recently advocated the measure in a most cogent editorial. We have no doubt of the desirability of the change, and we hope that it will be authorized by Congress during the coming winter.

A RÖNTGEN-RAY EVENING.

An invited party of medical men passed an instructive evening at Dr. Carl Beck's house on Friday of last week. Patients with various interesting lesions were shown, their histories given, and their injuries and ailments demonstrated by means of the Röntgen-ray apparatus. It would be well if such a judicious blending of scientific demonstration and social intercourse could oftener come to pass.

A NEW QUARTERLY JOURNAL OF HYGIENE.

There is no plethora of journals devoted to hygiene, and we await with interest the issue of the promised *Quarterly Journal of Hygiene* under distinguished London editorship.

News Items.

Society Meetings for the Coming Week:

MONDAY, *November 5th:* New York Academy of Sciences (Section in Biology); German Medical Society of the City of New York; Morrisania Medical Society, New York (private); Brooklyn Anatomical and Surgical Society (private); Corning, New York, Academy of Medicine; Utica, New York, Medical Library Association; Boston Society for Medical Observation; St. Albans, Vermont, Medical Association; Providence, Rhode Island, Medical Association; Hartford, Connecticut, Medical Society; South Pittsburgh, Pennsylvania, Medical Society; Chicago Medical Society.

TUESDAY, *November 6th:* New York Neurological Society; Buffalo Academy of Medicine (Section in Surgery); Elmira, New York, Academy of Medicine; Ogdensburgh, New York, Medical Association; Syracuse, New York, Academy of Medicine; Medical Society of the County of Cattaraugus (quarterly), New York; Hampden, Massachusetts, District Medical Society (Springfield); Hudson, New Jersey, County Medical Society (Jersey City); Androscoggin, Maine, County Medical Association (Lewiston); Baltimore Academy of Medicine; Medical Society of the University of Maryland (Baltimore).

WEDNESDAY, *November 7th:* New York Academy of Medicine (Section in Public Health); Society of Alumni of Bellevue Hospital; Medical Microscopical Society of Brooklyn; Medical Society of the County of Richmond, New York (New Brighton); Penobscot, Maine, County Medical Society (Bangor); Bridgeport, Connecticut, Medical Association.

THURSDAY, *November 8th:* Society of Medical Jurisprudence and State Medicine, New York; Brooklyn Pathological Society; New York Physicians' Mutual Aid Association (annual); Medical Society of the County of Cayuga, New York; South Boston, Massachusetts, Medical Club (private); Pathological Society of Philadelphia.

FRIDAY, *November 9th:* Yorkville Medical Association, New York (private); Brooklyn Dermatological and Genito-urinary Society (private); German Medical Society of Brooklyn; Medical Society of the Town of Saugerties, New York.

SATURDAY, *November 10th:* Obstetrical Society of Boston (private).

Dr. Burchard Died on Board Transport.—The body of Dr. Burchard, who died last month in Japan, was recently brought to Jefferson City, Mo., for burial. Dr. Burchard held a commission as assistant surgeon in the Fortieth regiment, and served in the Philippines. He started for China with his regiment when it was ordered there, but died on board the transport at Nagasaki, Japan.

To Study the Plague in Glasgow.—Professor K. Müller, Professor O. Pertik, and Dr. E. Frank, of Buda-Pesth, have been sent by the Hungarian Government to Glasgow to study the plague.

The Funeral of Professor Albert.—The funeral of Professor Edward Albert, of Vienna, whose death has already been referred to, was a most imposing function, thousands being in attendance from all parts of Austro-Hungary. Several hundred floral offerings were received from various societies, and delegations attended from all the various medical organizations in Vienna, and from all the more important medical societies in the kingdom.

Revolt in an Asylum for the Insane.—In the State hospital for the criminal insane at Matteawan, N. Y., about twenty patients revolted on October 20th, attacked and overcame eight guards, and made their escape. All were recaptured within a few days.

The Military Tract Medical Association.—At the annual meeting of the Military Tract Medical Association held at Kewanee, Ill., on October 18th, Dr. G. Frank Lydston, of Chicago, delivered an address on Doctors in Literature and the Literary Doctor.

Measles Epidemic in Albany.—Numerous cases of measles have been reported in Albany. N. Y., within the past fortnight.

Diphtheria in a Chicago School.—Several pupils of the Wentworth school, at Seventieth and Sangammon streets, Chicago, have been attacked with diphtheria and the infected rooms have been closed by the board of health.

Northwestern Wisconsin and Fox River Valley Associations.—A joint meeting of these two associations was held at Oshkosh, Wis., on October 23d, about fifty physicians being in attendance.

A Reception to Dr. M. H. Richardson.—The Philadelphia Medical Club gave a reception to Dr. M. H. Richardson, professor of surgery at Harvard University, on October 26th, at the Hotel Bellevue, Philadelphia. Prior to the reception Dr. J. M. Anders, president of the club, entertained the guest of the evening at dinner at the Union League Club, where Dr. W. H. Keen, Dr. John B. Deaver, Dr. Edward Martin, Dr. William L. Rodman, Dr. Ernest Laplace, Dr. James van Buskirk, Dr. Guy Hinsdale and Dr. T. Hollingsworth Andrews were also present. The reception was held afterwards at the Hotel Bellevue, and was attended by a majority of Philadelphia's representative physicians and surgeons.

Medical Society Celebrates its Fiftieth Anniversary.—The fiftieth anniversary of the Middlesex East District Medical Society was observed recently at Woburn, Mass. Members and ladies to the number of about one hundred were present. Dr. Josiah P. Bixby, of Woburn, president of the society, introduced Dr. Samuel W. Abbott, of Wakefield, secretary of the State board of health, who delivered an address touching upon the history of the society. Dr. Abbott said that when the Massachusetts Medical Society was established, a century ago, it had seventy members, while the present list of membership is 2,500. At the close of the address, the Rev. Dr. March, of Woburn, read a humorous poem. A banquet was served, at which Dr. John M. Harlow was toastmaster.

To Make Vaccination Compulsory in Colorado.—An ordinance may be added to the laws governing the city of Denver, Col., making it compulsory for adults to be vaccinated. At present the law only pertains to children.

Small-pox in Michigan.—Many small-pox cases are reported in certain districts in Michigan, but there have been but few deaths.

The Fresno (Cal.) Hospital Burned.—On October 18th the county hospital at Fresno was completely destroyed by fire, the loss involved being about $30,000 which is fully covered by insurance. While no lives were lost, it is feared that several patients who were in a critical condition may die from the shock sustained.

Typhoid Fever.—A malignant form of typhoid fever has developed in an epidemic form at Brazil, Ind. Seven cases were reported recently. Four deaths have resulted, and several patients are dangerously ill. Similar reports come from Sumpter, Mich., but the reports from Racine, Wis., are that the conditions there were greatly exaggerated and that but few deaths have occurred.

Marine-Hospital Service Health Reports.—The following cases of small-pox, yellow fever, cholera and plague, have been reported to the surgeon-general during the week ended October 27, 1900:

Small-pox—United States.

Arapahoe County, Colo	Sept.	17—Oct. 10.	9 cases.
Rio Grande County, Colo	Sept.	25—Oct. 5	4 “
Custer County, Colorado	Oct.	5	1 case.
Cherokee County, Kansas	Sept.	1-30	3 cases.
Crawford County, Kansas	Sept.	1-30	4 “
Douglas County, Kansas	Sept.	1-30	1 case.
Rawlins County, Kansas	Sept.	1-30	4 cases.
Shawnee County, Kansas	Sept.	1-30	2 “
New Orleans, Louisiana	Oct.	13-20	1 case.
Minneapolis, Minnesota	Oct.	13-20	1 “
Manchester, New Hampshire	Oct.	13-20	1 “
Cleveland, Ohio	Oct.	13-20	7 cases.
Philadelphia, Pennsylvania	Oct.	13-20	3 “
Salt Lake City, Utah	Oct.	13-20	6 “

Small-pox—Foreign.

Buenos Ayres, Argentina	Aug.	1-31	10 cases.	4 deaths.
Prague, Austria	Sept.	22-29	1 case.	
Antwerp, Belgium	Sept.	22-29	1 “	
Yukon Territory, Canada	Dawson,	Sept. 24	4 cases.	
Cairo, Egypt	Sept.	23-30		1 death.
Liverpool, England	Sept.	30—Oct. 6	4 “	
London, England	Sept.	22—Oct. 6	3 “	
Southampton, England	Sept.	30—Oct. 6	4 “	
West Hartlepool, England	Sept.	30—Oct. 6	3 “	
Paris, France	Sept.	23-30		7 deaths.
Gibraltar	Oct.	1-7	1 case.	
Athens, Greece	Sept.	30—Oct. 6	2 cases.	
Bombay, India	Sept.	16-25		1 death.
Calcutta, India	Sept.	15-22		6 deaths.
Madras, India	Sept.	15-21		2 “
Sorrento, Italy	Oct.	10	Generally prevalent.	
Formosa, Japan	Aug.	1-31	1 case.	
Vera Cruz, Mexico	Oct.	6-20		2 deaths.
Moscow, Russia	Sept.	22-29	2 cases.	1 death.
Odessa, Russia	Sept.	30—Oct. 6	10 cases.	1 “
St. Petersburg, Russia	Sept.	22-29	7 “	
Warsaw, Russia	Sept.	15-29		22 deaths.
Glasgow, Scotland	Oct.	5-12	25 cases.	1 death.

Yellow Fever.

Bocas del Toro, Colombia	Oct.	22	1 case.	
Havana, Cuba	Oct.	6-13		18 deaths.
Tampico, Mexico	Oct.	7-14	3 cases.	1 death.
Vera Cruz, Mexico	Oct.	6-20		13 deaths.

Cholera.

Bombay, India	Sept.	18-25		64 “
Calcutta, India	Sept.	15-22		7 “
Madras, India	Sept.	15-22		51 “
Nagasaki, Japan	Sept.	11-20	1 case.	

Plague—United States.

San Francisco, California	Oct.	5-10	2 cases bacteriologically confirmed.

Plague—Foreign and Insular.

Hong Kong, China	Aug.	18—Sept. 1.	13 cases.	13 deaths.
Alexandria, Egypt	Sept.	17-24	2 “	1 death.
Bombay, India	Sept.	18-25		89 deaths.
Calcutta, India	Sept.	15-22		24 “
Formosa, Japan	Aug.	1-31	4 “	3 “
Kobe, Japan	Oct.	23	Present.	
Glasgow, Scotland	Sept.	30—Oct. 6.		1 death.
Llandoff, Wales	Oct.	11	1 case on S. S. *Southgarth*, from River Platte.	

Detroit's Health Statistics.—Some interesting statistics are embodied in the nineteenth annual report of the board of health of Detroit, Mich., for the year ending June 30th last. The total number of deaths was 4,934; of which 441 are credited to pneumonia in its various forms. Typhoid took 52; whooping cough, 13; rheumatism, 29; scarlet fever, 16; heart disease in all forms, 236; measles, 48; phthisis pulmonalis, 158; pulmonary tuberculosis, 175 (333 in all); alcoholism, 18; appendicitis, 29; apoplexy, 137; Bright's disease, 36; cholera infantum, 159; convulsions, 168, and diphtheria, 112.

Chicago's Death Rate.—The weekly bulletin of the Chicago health department issued on October 22d, reports 385 deaths, the lowest October weekly mortality ever recorded in Chicago, and, with one exception, the lowest mortality of any week of 1900 thus far. The exception is the week ending June 16th, when there were only 374 deaths, and an annual rate of 11.47 per 1,000. The report for last week furnishes an annual death rate of 11.91 per 1,000 of the population, as fixed by the late United States census.

A Bust of Dr. George B. Wood is to be placed in the library of the University of Pennsylvania. J. J. Boyle is the sculptor. The granite pedestal upon which the bust will rest will bear inscriptions telling of Dr. Wood's connection with the university.

The Detroit Medical and Library Association has passed out of existence, the members having joined the recently organized Detroit Medical Association, which was founded with a view to consolidating all the medical interests into one society.

Frauds in Medical Registration.—The *Press* of Philadelphia claims to have unearthed a most astounding state of affairs in connection with the medical examination papers on file in the Department of Internal Affairs in Harrisburg. It says that of the 330 sets of papers that passed through the hands of the examiners thirty were re-marked and their general averages padded to 75 points, or a fraction beyond. In other words, nearly 10 per cent. of the young physicians who took the examinations for licenses last June were granted certificates after members of the Examining Board of the State Medical Society had declared them unfit to practise.

An inspection of the papers written last June by the applicants for medical licenses discloses that, although more than seventy men failed technically to come up to the standard of fitness required by law, only forty-two were refused licenses.

In the examinations in June, 1899, when the questions used were bought from the State printer's office, and circulated in advance among medical students, about 13 per cent. of the applicants failed. The *Press* in December, 1899, exposed the fraud, and the Examining Board, acting in harmony with this paper, adopted a new rule whereby the printing of examination questions was stopped and the questions were prepared by the various Medical Board presidents, who were personally responsible for any ante-examination leakage.

The June examination this year was conducted with typewritten questions that were seen, up to the hour of examination, by no one save members of the Examining Board. According to the report of the board, filed in Harrisburg six weeks later, 13 per cent. of the applicants failed. In reality, nearly 23 per cent. of the total number examined were unable to attain the average of 75.

Apparently to compensate for this unaccountable falling off in learning, the board, or some one in authority, reconsidered the papers of more than one-third of the unsuccessful men and raised their averages to the passing point.

The medical law of Pennsylvania is administered by a medical council and by another body consisting of the three boards of medical examiners. The function of the council is to adopt the questions which the boards are to submit to candidates for license to practise. The council passes upon the eligibility of candidates for examination and acts on the report of the examination conducted by the board.

Obituaries.

EDWARD R. SQUIBB, M. D.,

BROOKLYN, N. Y.

In the death of Dr. Edward R. Squibb, which occurred on October 26th, both medicine and pharmacy have lost a unique figure. While most of Dr. Squibb's life has been devoted to the work of a manufacturing pharmacist, his writings on materia medica and his work upon the Pharmacopœia of the United States have made his name even better known in medicine than in pharmacy. He was a man of a singularly clear insight, and of a most unswerving fidelity to the loftiest ideals of right and justice. He carried on a number of original researches of great importance, and gave the results of all his study freely to the medical profession and to chemistry. His unselfishness extended even into the domain of technical chemistry, for he invented and made public several processes which, had they been patented, would have been a source of a large revenue.

Dr. Squibb was a man of most positive convictions, of strong prejudices, and of untiring energy. He was, above all, modest and retiring in his disposition, and seldom appeared in public, except to read original papers before some of the professional organizations to which he belonged. Nevertheless, he was a power for good both in medicine and pharmacy, and among the community in which he lived. Dr. Squibb was born eighty-one years ago at Wilmington, Del., graduated from the Jefferson Medical College, Philadelphia, entered the navy as assistant surgeon, and served through the war. At the end of the war he established a private laboratory on Furman street, Brooklyn, which he moved subsequently to Doughty street, where it is now conducted by his sons, Dr. Edward H. and Charles F., both of whom survive him.

LAURENCE TURNBULL, M. D.,

PHILADELPHIA.

Dr. Laurence Turnbull, for the past twenty years aural surgeon at the Jefferson Medical College, died at his home at Philadelphia on October 24th, at the age of sixty-nine. Dr. Turnbull was a native of Scotland, and came to America at the age of twelve. He studied pharmacy at the Philadelphia College, and later graduated from the Jefferson Medical College. Dr. Turnbull was a frequent contributor to medical literature, his most important work being his *Clinical Manual of the Diseases of the Ear*, which first appeared in 1872. He was one of the first in the United States to study the production of local anæsthesia by cocaine.

Proceedings of Societies.

NEW YORK ACADEMY OF MEDICINE. SECTION IN OBSTETRICS AND GYNÆCOLOGY.

Meeting of October 25, 1900.

Dr. J. Riddle Goffe, Chairman.

Analgesia in Obstetrics Produced by Medullary Injections of Cocaine.—Dr. S. Marx opened the discussion on the general subject of medullary analgesia with this paper. It was based on forty-two cases of obstetrics in which this method of inducing anæsthesia had been employed. He said that at two different times he had taken up eucaine instead of cocaine, but had found it practically useless even in large doses. He made it a rule to prepare a fresh sterile solution of cocaine for each case, of such strength that ten minims represented a sixth of a grain of the hydrochloride. He said that his experience had increased his confidence in this form of anæsthesia for cases of labor, and made him firmer as to its absolute utility and safety, and as proof of his sincerity he declared that he would not hesitate to employ it in his own family. He recognized two dangers only—sepsis and cocaine poisoning. Sepsis could as surely be controlled in the lumbar puncture as elsewhere in the body, and he maintained that the surgically trained aseptic operator was the only one who could and would overcome this complication, and the only one who should think of doing this otherwise safe operation. The patient should be prepared with as much care as if one were about to invade the abdominal cavity. In all the cases reported there had been at no time any symptoms which could be referred to cocaine toxicity, although in every case there had been certain symptoms which might have been attributed to the cocaine and which would undoubtedly have been so interpreted had it not been for the fact that in five test experiments in which no cocaine had been used these same symptoms had been shown. In cases in which a saline solution or a solution of strychnine had been tried there had been noted the headache, vomiting, trembling of the limbs, and disturbance of temperature and pulse seen when cocaine had been injected. Obviously, the only conclusion from a consideration of all these facts was that these symptoms were not indicative of cocaine poisoning, but were merely the expression of a state of spinal shock resulting from the injections *per se*. While, therefore, he recognized cocaine poisoning as one of the dangers to be apprehended in using this form of anæsthesia, he felt that cocaine was a particularly safe drug in parturition, because the cerebral congestion associated with labor was directly antagonistic to the toxic action of cocaine on the brain.

He preferred to give the injection with the patient in the position assumed by the bicycle "scorcher," and was most emphatic in the assertion that it was absolutely necessary for successful anæsthesia that the spinal canal be entered, and in order to prove that this had been done he insisted that a few drops of subarachnoid fluid be allowed to escape before injecting the cocaine. Since he had made it a rule to get this "fluid tap" he had not had to record a single failure from this method in obstetric practice. Occasionally the greatest difficulty would be encountered in making the injection, as, for instance, in very stout patients or when there was much œdema of the tissues of the back. He recommended the use of a finely tempered needle, about three or four inches long, having a short bevel—a trocar point. Needles with a long bevel were apt to wander beyond the point of selection and do injury or carry the fluid where it was not wanted. On account of the ease with which it could be sterilized, and the freedom from liability to break, he preferred the solid-piston metal hypodermic syringe. After the syringe and needle had been boiled for ten minutes, and the site of the puncture had been properly prepared, the thumb of the left hand was placed on the spinous process of the fifth lumbar vertebra, and the needle was inserted in front of and just over the side of the edge of the thumb at an angle of 165°, in a direction slightly from below upward and from without inward. If the point struck the lamina, it was to be moved gently up or down until the space between the vertebræ was felt, and the point was then pushed in very slowly in a slightly downward direction until the clear subarachnoid fluid ran out. As soon as this occurred, the syringe was screwed on to the needle and the cocaine injected slowly. A quantity of solution representing from a sixth to a quarter of a grain of cocaine was injected, and the needle was kept *in situ* for a minute or two, to prevent the escape of the fluid. The spinous process of the fifth lumbar vertebra was readily found by finding the deep depression between the spine of the fifth and the first sacral vertebræ. In very fat subjects, a line drawn between the highest points of the iliac crests would pass over the centre of the fourth lumbar vertebra. In a period of from two to thirty minutes anæsthesia would be ushered in, sometimes by trembling of the limbs, a feeling of formication in the affected area, and transient vomiting. Even though the pain sense had been abolished, these patients would usually retain sufficient sensation to know when some object touched the skin. The period of anæsthesia varied from an hour to five hours. He had never noted in cases of labor, failing pulse, cyanosis, or certain other unpleasant symptoms occasionally observed in general surgical work. The distressing headache from which these persons often suffered could be, in large measure, avoided by giving a dose of thirty or forty grains of bromide two hours before the operation. Hyoscine hydrobromide and nitroglycerin he reserved for the more obstinate cases. Under this form of anæsthesia there was no spontaneous bearing-down, but, when told to assist in the expulsion of the child, the patient would bring her abdominal muscles into play as vigorously as those not anæsthetized did. He had noticed no unusual disposition to hæmorrhage in cocainized subjects. It was worthy of mention that dilatation of the os was exceptionally easy in persons so anæsthetized. The speaker had done versions and forceps operations readily, though not with so much ease as when the patient was under chloroform. This new form of anæsthesia he believed to be ideally suited to mitigate or absolutely allay the dreadful pains of a normal labor, with no danger to the mother and none to the child, immediate or remote.

Some Observations on Medullary Analgesia.—Dr. S. Ormond Goldan contributed this paper to the discussion. It was based on twenty cases in which the new method of anæsthesia had been employed, for the most part cases of general surgery. He advised the use of an attenuated needle of gold having a short bevel. He had used in each case twenty minims of a two-per-cent. solution of cocaine, freshly prepared, and made the puncture between the fourth and fifth lumbar vertebræ, not more than a centimetre to the outside. Vomiting had occurred in about half the cases, and many of the patients had been pale or slightly cyanotic at first. More or less perspiration had been a nearly constant accompaniment. Headache had been noted in about half the cases, and in a few there had been persistent rigidity of the muscles of the back and neck, in one case lasting a week. Toxic symptoms had been observed in only one instance, and that a case of obstetrics. In this patient there had also been severe headache for two days after the injection. It was important to test the individual susceptibility to cocaine, and in this connection it was well to remember that when the first injection failed to induce a proper degree of anæsthesia it also failed to cause the characteristic physiological effects of the drug. If his memory served him, Tuffier had reported one case in which death had followed the injection of cocaine into the spinal canal. Here the fatal termination had been attributed to the action of the cocaine. His own opinion of the method under discussion was that it would take its place in surgery, but would be restricted to those occasional cases in which general anæsthetics could not or should not be administered. His experience had been that the majority of persons preferred to be unconscious when subjected to an operation.

Medullary Injections in Gynæcology.—The chairman took up this part of the subject, but dwelt more particularly on what he had seen done recently by Tuffier and his assistants. For example, he had seen them successfully remove a small fibroid tumor of the breast. For such high operations the same technique was employed as for the others except that larger doses of cocaine were required. It had been found that the quick or forcible injection of the cocaine produced a higher area of anæsthesia. It had been said by one of the speakers that eucaine had proved disappointing; consequently it might be well to say that he had just received a letter from Dr. Keen in which that surgeon stated that he had just used eucaine with perfect satisfaction. The chairman added that, while he believed this method of anæsthesia could be relied upon for obstetrical and gynæcological operations, there were psychological and æsthetic reasons which would prevent its extensive employment in gynæcological cases.

Dr. A. Palmer Dudley opened the general discussion with a report of six cases in which he had tried this method of anæsthesia. He was far from being enthusiastic about it, for he had been annoyed in operating by the persistent nausea and retching, and by the involuntary discharges from the bowels. Moreover, the distressing headache experienced by most of the patients was fully as troublesome as the usual after-effects of ether and chloroform. Again, if it became necessary, for any reason, to prolong the operation beyond the time counted upon, the anæsthesia by this method might not be sufficiently lasting unless a second injection was given. To do this in the course of an abdominal section was certainly not easy or desirable. In the first case he had used a cubic centimetre of cocaine solution and the anæsthesia had lasted for an hour and fifty-eight minutes; in the second case, with the same dose of cocaine, the duration of the anæsthesia had been two hours and thirty-nine minutes; in the next case the dose had been 1.5 c.c., and the duration of the anæsthesia two hours and ten minutes. In two other cases in which this last dose had been used the period of anæsthesia had been respectively an hour and twenty-eight minutes and an hour and sixteen minutes. There had been, in all but one case, a rise of temperature to 101.5° or 102° F., but this had lasted only a short time. In one of the cases the anæsthesia had lasted only thirty-two minutes, though the dose had been 1 c.c. Because of this great variability in the duration of the anæsthesia, he thought the method would not come into general use for long and difficult major operations, but it might find a useful application in minor cases if the patient objected to a general anæsthetic, and particularly in cases of obstetrics.

Dr. HENRY C. COE reported his experience, which comprised only one case, but that one a typical success. The patient was a woman in hospital whom he described as being absolutely devoid of nerves. She was decidedly œdematous and in such condition that he thought the administration of ether would probably cost her her life. From pelvic examination a diagnosis had been made of papillomatous cyst. The operation was long and difficult, but the patient chatted pleasantly throughout, and afterward experienced absolutely no shock. In spite of this brilliant success Dr. Coe said that he felt he would have to wait a long time before meeting with just such a case as he would care to subject to this method.

Dr. EGBERT H. GRANDIN threw a damper on the spirit of the enthusiasts by narrating his unfortunate experience in two cases in which the method had been tried under the guidance of Dr. Marx. Both patients had been excitable Italians in hospital, and, so far as the anæsthesia was concerned, there had been complete failure. After commenting upon the great safety and comparative freedom from unpleasant complications when ether or chloroform was used, Dr. Grandin said that, if both cardiac and renal disease were present in a case, he might be willing to test intraspinal cocainization again. But he wished to advise conservatism, because there was reason for believing that there had already been an appalling mortality. He had in his possession certain statistics, which had been vouched for independently by two gentlemen who had been at the International Medical Congress, and certainly, if these proved to be authentic, it was time to call a halt in the use of this method of inducing anæsthesia. The statistics referred to were these: A hundred cases of lumbar puncture, with five deaths, and anæsthesia secured in only seventeen per cent. of the cases. If these remarkable figures represented the true results obtained, one could only escape legal liability by securing the written consent of the patient before resorting to lumbar puncture as a means of inducing anæsthesia.

Dr. J. BION BOGART, of Brooklyn, gave his experience, which included twenty-five cases of general surgery, among them being amputations, excision of the hip, osteotomy for knock-knee, and five rectal cases. There had been seven failures, but some of these could be readily explained by faulty technique or selection. Most of these patients had been drawn from a poor class of foreigners; six of them were Italians. That the anæsthesia had been complete was shown by the fact that he had been able to operate in a case of fæcal fistula and subject the bowel to considerable manipulation without causing the patient any pain. While he did not wish to underrate the danger of infection, he did not think this risk was very great if proper precautions were observed, because the needle was compelled to traverse much tissue before reaching the spinal canal.

Dr. MARX said that, while he was perfectly willing to admit that Dr. Grandin's cases were absolute failures, it should be remembered that others had also had several failures along with many successes. He could not but think it unfortunate that Dr. Grandin had placed those remarkable statistics on record, vouched for as they were by two persons whose names had been withheld. He purposed to write another paper detailing his failures and the complications that he had met with in the use of this method.

Dr. GOLDAN remarked that his first two cases had been failures, yet in these instances he had proved the cocaine not to be inert by testing it upon himself and upon another. The cause was probably to be found in the use of too large a needle, which had allowed the escape of the fluid injected. In three cases the anæsthesia had been perfectly satisfactory until the intestine had been handled, but possibly this could be explained by the fact that these manipulations had been toward the close of the operation, and the effect of the anæsthetic might have been wearing away. Again, he believed that the sensation produced by traction was different from that of ordinary pain. He had tried making the puncture both between the fourth and fifth and between the third and fourth lumbar vertebræ, and did not think there was any difference in the result. Both sites had been used in one patient, and he had failed to secure anæsthesia, yet a few days later, at a secondary operation, a perfectly satisfactory medullary anæsthesia had been secured in this same patient. He had been particular to report both failures and successes.

Pith of Current Literature.

Medical Record, October 27, 1900.

Puerperal Sepsis: Its Pathology and Treatment. By Dr. William J. Pryor.—Though self-infection may take place, the observations of Kronig and Whitridge Williams pretty thoroughly disprove its possibility, except in very rare instances. Streptococci and staphylococci are the ætiological factors concerned. Septic pneumonia, septic endocarditis, acute nephritis, and general suppurative peritonitis, are some of the graver lesions; while ovarian abscess and pyosalpinx are local results.

The virulence of the infecting germs, the trauma to which the uterus has been subjected, the patient's condition, the area of endometrium involved—all these influence the gravity of the infection and its results. As to treatment: *check* local infection, *combat* the general septicæmia, *prevent* pelvic suppuration.

Curettage is recommended, and washing away the *débris* with many quarts of decinormal salt solution, and packing the uterus with five-per-cent. iodoform gauze. Through a broad incision into the posterior cul-de-sac, evacuate all the fluids in the pelvis, and fill all parts of the pelvis with what the author calls the pelvic Mikulicz dressing of iodoform gauze. If, under ether, the pulse is 120 or over, do an intravenous saline infusion—from two to three quarts. Also if there are grave visceral lesions, particularly in the heart or kidneys. After operation, give colon enemata of salt solution every three hours. Curettage gives twenty-per-cent. mortality. Serum therapy gives thirty-three per cent. Perform a rapid abdominal hysterectomy in cases of thrombosis.

Foreign Bodies in the Œsophagus. By Dr. George W. King.—In the author's case, a child, six years of age, dropped a disc-shaped tin whistle, an inch in diameter, into the œsophagus. All the usual expedients were resorted to, and on the tenth day œsophagotomy proved successful in removing the obstruction. The recovery was uneventful. A radiograph was of assistance. The procedure advisable in similar cases is considered.

Report of Three Cases of Intestinal Obstruction Due to Meckel's Diverticulum. By Dr. John F. Erdmann.—Attention is called to the resemblance of the onset in each of these cases to an attack of appendicular inflammation. The usual location of these diverticula is within three feet of the cæcum, and the symptomatic effect of an inflammation or involvement of a viscus in such proximity to the appendix is obvious. The conditions of obstruction follow rapidly those of sympathetic involvement, and thus the diagnosis of obstruction from some other cause than appendicular inflammation is more readily made, except when profound sepsis is present.

Electric Light; its Physiological Action and Therapeutic Value in Tuberculosis of the Throat and Lungs. By Dr. W. Freudenthal.—The general conclusion is that we have, in the chemical rays of the electric light, a healing power which promises to be of the greatest value in the near future.

The Importance of Preliminary Treatment for Intranasal Operations. By Dr. Carl Seiler.

A Contribution to the Diagnosis of Suppurative Appendicitis. By Dr. A. Robin.—The importance of the blood count is exemplified for the benefit of the non-specialist, and a case in point is given where suppuration was detected by the blood count, when neither the clinical symptoms nor external signs pointed to it. A white blood count will often swing the pendulum in the direction of the diagnosis of one disease or another, and this is especially true in cases of suppuration complicating an infectious or inflammatory disease.

Intestinal Obstruction Complicating Appendicitis, with the Report of a Case. By Dr. Thomas M. Paul.—It is exceptional to be able to ascribe ileus to appendicular inflammation with the degree of certainty present in this instance, before the abdomen was opened. This case emphasizes the importance of early operation, and demonstrates the value of the intravenous injection of decinormal salt solution in cases of shock.

Medical News, October 27, 1900.

The City and its Consumptive Poor: A Plea for a Municipal Sanatorium Outside of the Corporate Limits. By Dr. Alfred Meyer.—Another contribution to the literature that tends to show that the general trend of professional opinion is in favor of the sanatorium treatment at municipal or State expense. The general considerations are the usual ones that appeal to reason and to charity. It may be of service to note, that the author proves that the money value to the city, in lives saved, will be millions of dollars, whether estimated by what it costs to rear and educate an individual, by what it costs to care for dependent widows and children, or by the law once upon the statute books of this State, valuing a life at $5,000. "If each one of us, in his private, in his public, and in his professional life preaches the need of further municipal action, the agitation *will* and *must* bear fruit."

Repairing the Abdominal Wall in Ventral Hernia: A New Operation. By Dr. Carl Beck.

A Plea for the More Frequent Avoidance of Exsection of the Ovaries in Connection with Operations upon Diseased Tubes. By Dr. Philander A. Harris.—A woman for whom a sufficiency of ovarian stroma to continue the phenomena of menstruation and ovulation has been spared in operation, but from whom one tube has been exsected and the other amputated, is not very likely to conceive, yet pregnancy is *possible.* If we have saved for her the ordinary and outward evidences of the normal functions of woman, and if, for her, conception is at all possible, she may rank as technically perfect in womanhood, and without fear of invalidating a contract of marriage, should that be made without reference to her past medical history. In view of these facts, the author believes that we should spare, to as many as possible, menstruation and ovulation, and also, for whatever it may be worth, the practical although slight hope of conception.

The Importance of Rest in Pulmonary Tuberculosis. By Dr. Carroll E. Edson.—As long as there is fever, there should be prohibition of exertion. The degree of rest is a detail for each case, and its duration depends on the results. The more thoroughly it is carried out, the sooner the pulse and temperature will become normal. With the cessation of active disease, the amount of exercise may gradually be increased, the effects being carefully measured by the temperature, the pulse, the cough, and the weight.

Present Status of Interstate Reciprocity Concerning Licenses to Practise Medicine. By Dr. Emil Amberg.—A committee of five, appointed by the Wayne County Medical Society, presented to the authorities of the various States and Territories a series of questions, with the idea of ascertaining the trend of opinion in this matter. In the matter of entering into a state of reciprocity with other States or Territories which have practically the same requirements for the license of practising medicine as the State questioned, thirty-eight were favorable, as also part of Florida and part of the Indian Territory, five were undecided, and two unfavorably disposed. The laws allow reciprocity in twelve political divisions, District of Columbia, Illinois, Indiana, Maryland, Michigan, New Hampshire, New Jersey, New York, Ohio, Pennsylvania, Virginia, Wisconsin. Actual reciprocity exists in two States: New Jersey and Pennsylvania.

Philadelphia Medical Journal, October 27, 1900.

The Ætiology of Yellow Fever. By Walter Reed, M. D., Surgeon, U. S. Army, and James Carroll, M. D., A. Agramonte, M. D., Jesse W. Lazear, M. D., Acting Assistant Surgeons, U. S. Army.—The blood taken during life from the general venous circulation, on various days of the disease, in eighteen cases of yellow fever successively studied, has given negative results as regards the presence of *Bacillus icteroides.* Cultures taken from the blood and organs of eleven yellow fever cadavers have also proved negative as regards the presence of this bacillus. The bacillus icteroides (Sanarelli) stands in no causative relation to yellow fever, but, when present, should be considered as a secondary invader in this disease. The mosquito serves as the intermediate host for the parasite of yellow fever, and it is highly probable that the disease is only propagated through the bite of this insect. Two charts are given, showing yellow fever following, within the usual period of incubation, the bite of an infected mosquito (*Culex fasciatus*). The whole subject is treated in a very thorough manner, and interesting and valuable tables accompany the article.

Restitution of the Continuity of the Tibia by Transplantation of the Patella into an Extensive Osteomyelitic Defect. By Dr. N. Senn.—In this case, two operations, with an interval of six months, were resorted to for the purpose of restoring the continuity of the tibia by the implantation of the tibia of a young rabbit. Both operations were total failures, and the case demonstrates conclusively that we cannot rely on transplantation of bone from any of the lower animals in the restoration of bone defects. The transplantation of the patella, however, was eminently successful, and the value of self-transplantation cannot be doubted. Recovery was uneventful, and, though the patient now walks with the aid of a cane, there is every prospect that he can soon dispense with this mechanical appliance.

The Interrelationship between Cardiovascular Disease and Renal Disease, with Particular Reference to the Diagnosis and Treatment. By Dr. Aloysius O. J. Kelly.—That this relationship is sometimes overlooked, is the conviction of the author. An hypertrophy of the heart is found in association with all forms of nephritis, but not in all cases. One of the signs of cardiac disease in chronic nephritis, that will immediately arrest the clinician's attention, is displacement of the apex beat. It may be found in the sixth, seventh, or eighth interspace outside of the nipple line, even as far as the midaxillary line. Another evidence of hypertrophy of the left ventricle is found in the marked accentuation of the aortic second sound of the heart.

Whenever the heart begins to flag, medication is called for, and there are no better remedies than nitroglycerin and caffeine. When there is no marked cardiac debility, there are several drugs that should not be given, and among these, digitalis should be mentioned first. Marked cardiac dilatation demands digitalis in large doses. Strychnine is good in all stages of the disease.

A Case of Progressive Pernicious Anæmia. By Dr. L. M. Van Meter.

The Significance of Diacetic Acid in the Urine. By Dr. C. K. Johnson.—A case is given illustrating the contention of the author, that the presence of diacetic acid in the urine of a diabetic patient, is a grave symptom and may usually be looked upon as a very probable prelude to coma, which usually terminates quickly in death. This acid may be detected in the recently voided urine by adding a few drops of ferric chloride solution to it. If the phosphates are precipitated, filter them off, and to the filtrate add a few more drops of ferric-chloride solution. If a dark red color is produced, diacetic acid is probably present.

Journal of the American Medical Association, October 27, 1900.

Laryngeal Stenosis Due to Complication of the Thyreoid Cartilages. By Dr. Emil Mayer.

Papillomata of Larynx in Children. By Dr. Edward T. Dickerman.—Papillomata of the larynx, especially rare in this country, in a number of cases undergo spontaneous cure. Intralaryngeal methods have the preference; but, if dyspnœa is pronounced, tracheotomy should be done at once, after which intralaryngeal methods should be tried. The tube should be worn for six months after the growth has disappeared. Thyreotomy should be considered only as a last resort.

In the author's clinic, this disease has occurred once in about every twelve hundred cases, and five cases are detailed in this paper.

Unusual Papillomatous Growth in the Larynx. By Dr. Joseph S. Gibb.—The peculiarities of this neoplasm —a whitish, glistening excrescence limited to one side of the larynx, and not materially interfering with respiration—in the opinion of the author, merit publication. Its color is unique, and though Mackenzie, Browne, and Bosworth intimate that papillomata *may* be of a whitish color, no specific case seems forthcoming in literature.

The Reciprocal Relations between Consumptives and Society. By Dr. S. G. Bonney.—If pulmonary tuberculosis is preventable, the consumptive has a claim upon society by virtue of the very fact that he has become an innocent victim of the disease. He has been permitted to suffer a continued exposure to infection after having been subjected to such conditions of ventilation and hygiene as to bring about an increased susceptibility. Both the exposure and the lessened resistance have been to a great extent preventable. Who has jurisdiction to prevent, if not society? And if so, why is not the State morally responsible for its failure in prophylaxis?

The Serums in Tuberculosis. By Dr. Paul Paquin. —Though applicable as a remedial measure, serum is not yet to be depended upon as an infallible immunizing agent in the sense attributed to diphtheria serum. Being in the line of natural law, and having preventive and curative properties, it has its sphere of good influence in the hands of the discriminating practitioner. But we must not fail to neglect any, and every other means. We should treat every single case according to the conditions existing—*individualizing instead of generalizing.*

How Shall We Induce Immunity in Tuberculosis? By Dr. H. B. Weaver.—Dr. Weaver is satisfied, apparently, with the answer, "Watery Extract." Being a pure solution of the tubercle bacillus substance, repeatedly filtered through porcelain, removing, therefore, the apprehension that, through the use of tuberculin preparations, the tubercle bacilli might become transplanted to other healthy portions of the body, its superiority over other tubercle preparations and serums would seem evident. Its properties are immunizing—not curative. The earlier the disease is discovered, the greater will be the benefits from such specific treatment.

Case of Fatal Fœtal Ichthyosis. By Dr. Annie Sturgis Daniel, and Dr. Louise Cordes.—Interesting because of its rarity. Of the cause of fœtal ichthyosis, nothing is known. It is not, however, a fatal disease *in utero*. The report of the autopsy is an interesting one to those interested in the subject.

Gastrointestinal Hæmorrhage in the New-born. By Dr. Edward H. Small.—Though a great many causes have been given for this affection, it is difficult to assign one cause for many cases. A greater proportion of cases occurring in institutions than in private practice, would seem to point to an infectious origin. Bacteriological examinations reveal an organism suggesting the *Diplococcus pneumoniæ,* and probably belonging to the pneumococcus group. It is self-limited and ends in death or complete recovery. Probably half the patients die. Internal medication is not of use. Perfect quiet, careful and persistent feeding from spoon or dropper (mother's milk, or careful artificial diet), should be observed. Warmth in the stage of collapse, and alcoholic stimulants even in the stage of bleeding, are beneficial. Solution of gelatin, both by mouth and rectum, resulted favorably in one case. Morphine hypodermically helps very much.

Chronic Inflammation of the Tear Passages. By Dr. Willis O. Nance.—Sac extirpation in obstinate cases has recently been revived, and it is justifiable as a last resort.

A Few Points on Appendicitis. By Dr. J. Henry Barbat.—As the author is convinced from statistics that over ninety per cent. of cases of true appendicular inflammation that are not operated on have recurrences, the trend of the suggestion may be inferred. Operate immediately in acute appendicular inflammation.

Boston Medical and Surgical Journal, October 25, 1900.

Congenital Dislocation of the Hip Joint. By Dr. E. H. Bradford.—The most important obstacle to complete reduction is the so-called "acetabular" or "capsular" hymen, which is often pressed in front of the entering head of the femur, allowing apparent reduction, but favoring relapse as the limb is placed in certain positions. The end to be attained is, to put the head of the femur in the acetabulum, to stretch the incised capsule around the neck, and to secure it by catgut sutures either around the neck or to the opposing parts of the cut capsules. To accomplish this, all contracted tissues which prevent pulling the head to the level of the acetabulum, should be lengthened. The author believes that this stretching of the contracted tissue should be supplemented by division of the intermuscular fasciæ through an open skin incision, and this would seem more surgical than the use of extreme force. While reduction cannot be permanently attained in all cases, the operation, with the author's technique, may be performed without danger to the patient and with a moderate amount of success.

The Coroner System in the United States at the Close of the Nineteenth Century. By Dr. S. W. Abbott.—An interesting paper with the conclusion that the old-time coroner is a foe to medical progress.

Autopsies and Physical Examinations. By Mr. R. O. Harris [District Attorney, East Bridgewater, Mass.]. —A homily on the necessity of thoroughness in autopsies; and some comments on "expert evidence."

A Case of Contracting Scar of the Palm of the Hand Remedied by a Flap from the Abdomen. By Dr. F. M. Briggs.

Physiological Dilatation of the Mitral Sphincter as a Factor in Functional and Organic Disturbances of the Heart. By Dr. Morton Prince.

Removal of the Greater Part of the Stomach for Carcinoma; Closure of the Pyloric End; Anastomosis between Jejunum and Cardiac End; Recovery. By Dr. W. A. Brooks, Jr.

Lancet, October 20, 1900.

John Locke as a Physician. By Dr. W. Osler.

The Clinical Study of Heart Disease. By Dr. N. Moore.—The Hunterian Lecture.—After reviewing the work done by John Hunter on the vascular system, the author discusses various questions which arise in the consideration of disease of the heart. The habit of determining exactly what we hear should be cultivated, and all doubtful or doubting expressions avoided so far as the evidence of the senses is concerned.

Murmurs are sometimes very faint, barely audible. Inhalation of a capsule of nitrite of amyl is often followed by a marked increase in sound of a murmur, and is much safer than any violent muscular exertion. Hypertrophy once determined must be explained; it has always a morbid explanation. If on the left side, it means either valvular disease, chronic interstitial nephritis, or adherent pericardium. Aneurysm alone is never a cause of hypertrophy. *Cor bovinum* is always due, either to disease of the aortic valves, or to chronic interstitial nephritis. The thrill produced by mitral stenosis is felt only at the apex; that produced by rigid aortic valves may be felt at the apex as well as at the base. The murmur of aortic stenosis attains the loudest sound of all murmurs; it has been heard at a distance of six inches from the patient's chest. Any systolic murmur which is distinct at the apex may be heard at the angle of the left scapula. The diastolic or presystolic murmur of mitral stenosis is never heard at the back.

Apart from congenital conditions, diseases of the valves of the right heart are, of course, rare. Tricuspid stenosis is usually accompanied by mitral stenosis. A diagnosis of tricuspid regurgitation is only justified where a backward flow in the veins of the neck is present. In early childhood, it is difficult to distinguish mitral valvular disease from congenital pulmonary obstruction with a small opening at the upper part of the ventricular sæptum; the pulse furnishes the best guide. An absolute diagnosis of adherent pericardium can be made only in cases of uncomplicated mitral stenosis. Such cases are unaccompanied by hypertrophy of the left ventricle; when it exists, it is due to adherent pericardium. Every case of rheumatic fever in the young should be considered a case of endocarditis, and the temperature should be taken four times daily for some weeks after an attack, and the slightest rise of temperature treated as if it was a fresh attack. When angina pectoris is present, disease of the aortic valves almost always exists. Mitral stenosis is most distressing to the patient, and absence of such distress may show that aortic regurgitation, and not mitral stenosis, is the cause of a thrill and diastolic murmur.

Three Cases of Gastrotomy for Hæmatemesis. By Dr. C. W. M. Moullin.—The author reports three successful cases of this operation. Two points deserve consideration. The first is the difficulty of finding the spot from which the bleeding comes, and it may be very great. Cases are on record in which gastrotomy has been performed for hæmatemesis and the source of the hæmorrhage has not been ascertained. All sorts of methods have been suggested for the treatment of the bleeding point, when found. No single method is available or possible in all cases; excision is probably the ideal one. But it is impossible to form a decision until the ulcer is seen and all the conditions are known.

The Prophylaxis of Malaria and the Destruction of Mosquitoes in the Island of Asinara. By Professor C. Fermi and Dr. Tonsini.—(Translated from the *Annali d'Igiène Sperimentale,* Vol. x, Fasc. ii, 1900).—The island of Asinara is situated to the north of Sardinia, and is inhabited only by convicts. Before beginning their work on the prophylaxis of malaria, the authors made a thorough topographical study of the island and located the various malarial centres. The destruction of the mosquito in its larval stage was accomplished by petrolizing the water throughout the island twice a month. The process was commenced in June and continued until November. The destruction of the adult mosquito was done by means of a powder of pyrethrum, chrysanthemum, valerian, etc., and also by chlorine gas evolved from chloride of lime by sulphuric acid. The dormitories were protected against the mosquito by means of strong muslin tacked over the window frames. The results were as follows: 1. The anopheles was almost never found in any of the dormitories and the *Culex pipiens* was much diminished in numbers. 2. No case of primary malaria originating in the island was observed; nine imported cases occurred. The previous year, ninety-nine cases occurred, of which forty had been contracted on the island.

Operation versus Truss in the Inguinal Hernia of Childhood. By R. H. Russell, F. R. C. S.—The author advocates the universal employment of operation to supersede the truss. But he calls attention to the one source of danger that is threatened in removal of the sac: "It lurks most treacherously in the phrase . . . 'Ligature and removal of the sac, *as high up as possible,*' . . . this is the royal road to disaster." Inclusion of a diverticulum from the bladder is the cause *par excellence* of disaster in operation for hernia in children, and were this element of danger eliminated from the operation, mortality would be practically unknown. All inguinal hernia in childhood is due to the presence of a congenital sac and will be cured by removal of the sac. And, further, the author doubts that oblique inguinal hernia ever occurs at any age independently of a pre-formed sac; that is to say, it is never "acquired."

The Treatment of Severe Cases of Diphtheria with Saline Infusions. By E. E. Laslett, M. B.—Under the influence of antitoxine, numerous diphtheria patients recover from the acute stage, but such cases are frequently disappointing in later stages. Signs of serious heart failure appear, sometimes as early as the seventh day, accompanied usually by persistent vomiting. This is due to fatty degeneration of the heart muscle independent of nerve injury, but is the result of the action of diphtheria toxine. Saline infusions are particularly indicated when, during the persistent vomiting, nutrient enemata are also rejected. Six cases were treated, but all were ultimately fatal. In the early stages of the disease, the introduction of additional fluid into the blood will dilute the toxine or assist its excretion by producing diuresis. Fifteen cases were so treated, the injections being made under the loose skin below the right breast. From ten to fifteen ounces were injected in half an hour. Of the fifteen cases, seven patients died; of the seven, six died during the acute stage. Two of the patients developed an abscess at the site of the injection.

The Value of Antistreptococcic Serum. By G. S. Walton, M. B.—The author describes two cases in which the use of antistreptococcic serum was followed by a genuine beneficial effect. One case was that of a woman aged twenty, a primipara, who developed puerperal fever three days after delivery. The injection of 10 cubic centimetres of serum was followed by distinct improvement in the pulse and temperature. The injection of serum was repeated the next morning, and again twelve days later, after a slight relapse with rise of temperature.

The other case was one of quinsy, in a woman aged thirty years. Injection of 10 cubic centimetres of serum was followed in twelve hours by the most marked improvement. (In the first case, sodium salicylate was also used. In the second case, cultures showed the presence of diphtheria bacilli, and the patient received diphtheria antitoxine.)

British Medical Journal, October 20, 1900.

The Study of Clinical Medicine. By Sir R. D. Powell, Bart., M. D.—(A presidential address delivered before the Clinical Society of London.)

A Clinical View of Some of the Mechanisms of the Heart and its Valves. By Dr. W. Ewart.—In this article the author discusses the anatomy of the heart and its valves, especially as it bears upon their mechanisms. Among the points considered are the following:

The mode of contraction and the systolic changes in the shape and size of the heart; the mitral valve and the mechanism of normal mitral closure; the functions of the papillary muscles, valves, and chordæ, and the first sound of the heart; early mitral disease and its evolution into opposite types; the late or funnel stage of mitral stenosis (*auricula in ventriculo*), and its influence upon the diastolic and presystolic murmurs.

The Prevention of Valvular Disease of the Heart in Cases of Acute Rheumatism. By Dr. R. Caton.—In order to prevent rheumatic inflammation of the endocardium, to remove the products of such inflammation, and to prevent crippling of the heart valves, the author advises the following: 1. Stop the rheumatism as rapidly as possible, and prevent its aggravation by chills. Keep the patient clothed in a warm flannel garment, absolutely at rest in bed. 2. Salicylates to be given in full dose, combined with alkalies if necessary. 3. Diet to be confined to milk and farinaceous food for a long time; no red meat. 4. The patient to be kept in bed for a long time after the pain and fever are gone, and the salicylate treatment to be kept up for two or three weeks.

Out of many hundred cases the author has had only fifteen per cent. of cardiac troubles. In those cases in which cardiac involvement has taken place, the patient must be kept stringently at rest in order to give the heart all the rest possible. Small blisters, the size of a shilling, are to be applied over the course of the first four dorsal intercostal nerves: *i. e.*, over the upper part of the chest between the clavicle and the nipple on either side. Counter irritation of these nerves has a beneficial effect upon the inflamed endocardium, in the same way that small blisters benefit an inflamed joint. Finally all inflammatory exudation should be absorbed and removed as early as possible; this is best accomplished by the administration of sodium iodide or a mercurial. Eighty-five cases of valvulitis have been treated by the author on the above-described plan. Of these, fifty-four entered the hospital with signs of cardiac trouble. Of the fifty-four, thirty-four left with apparently sound, healthy hearts, while twenty had well-developed valvular disease. In thirty-one cases the valvulitis began in the hospital; these were treated *ab initio*, and twenty-seven were discharged with sound hearts, three lapsed into permanent valvulitis, and one remains under treatment. The chief importance of rheumatism consists in the cardiac risks involved; in the great majority of cases they can be averted, but only at the cost of a prolonged rest.

On the Resting Position of Anopheles. By Dr. L. W. Sambon and G. C. Low, M. B.—The authors maintain that the statement of Ross and Austen, that in all mosquitoes of the genus *Anopheles* the body is at right angles to the surface upon which the mosquito is resting, is erroneous. They have observed thousands of *Anopheles* of the species *claviger* in the Roman Campagna, and in all, the body never formed an angle with surface greater than 45°. The bodies of *Anopheles pseudopictus*, however, form a much wider angle with the surface and approach more nearly to the position described by Ross and Austen. *Anopheles superpictus* takes a position similar to that of *Anopheles claviger*. So that the "standing-on-the-head" position is of value only in the distinguishing of species.

Antistreptococcus Serum in Pulmonary Tuberculosis. By T. Campbell, M. B.—The author reports a case of pulmonary tuberculosis in a girl aged eighteen years, in whom, without antipyretics, the average evening temperature varied from 102°-103° F., the pulse from 84 to 112 and the respirations from 24 to 30. With a view to restoring the temperature to normal, antistreptococcus serum was administered during a period of thirteen days, ten doses of 10 cubic centimetres each being given. It did not prove beneficial; indeed, the treatment apparently caused a slight increase in the pyrexia, without affecting the pulse and respiration rates. All that can be deduced from this trial is that if the marked habitual evening exacerbation of temperature in cases of pulmonary tuberculosis is really due to the action of pyogenic organisms, the antitoxine treatment is apparently of little avail.

A Note on the Treatment of Abscess of the Liver. By E. Laurent, M. R. C. S.—The author recommends the use of the trocar and cannula in exploring cases of abscess of the liver, in preference to laparotomy. He describes a special trocar and cannula which is one inch longer than the usual form and is oval on cross section, thus permitting it to pass more freely between the ribs. The cannula is grooved on either side, thus serving as a grooved director in cases in which incision is necessary.

An Unusual Case of Malignant Disease in Early Infant Life.—The author reports a case of malignant disease of the testicle occurring in a child ten weeks old. At the end of eight months the tumor had attained the size of a small hen's egg, and was removed. Microscopical examination showed it to be a columnar-celled carcinoma, which is of very rare occurrence in infants, except in congenital renal tumors.

On Oophorectomy in Cancer of the Breast. By S. Boyd, F. R. C. S.—The author has tabulated forty-one cases of oophorectomy in cancer of the breast, performed by different operators. He has also ascertained the result in thirteen other cases, making fifty-four in all. Of the fifty-four cases, nineteen, or thirty-five per cent., were more or less markedly benefited, thirty-four were not benefited, and one died of exhaustion. The statistics seem to prove that atrophy of cancer masses after oophorectomy is no accidental concurrence, nor due simply to the laparotomy. Cancers other than mammary are not benefited by oophorectomy. The average age of the benefited cases is considerably higher than that of the unimproved cases. The cases of all the patients who had passed the menopause are included in the failures. Evidence of success appears early. Within from two to four weeks, much of the growth may be gone. Amenorrhœa and sterility, and atrophy of the uterus and breasts, are constant effects of oophorectomy. It should be offered in cases other than the very acute, in women over forty years of age and having no visceral or bony lesions, in fair condition, and before the menopause.

Four Cases of Recurrent Mammary Carcinoma Treated by Oophorectomy and Thyreoid Extract. By G. E. Herman, F. R. C. S.—The author reports four cases of this affection treated by oophorectomy, in all of which great improvement had taken place. In only one case, however, had the carcinoma entirely disappeared. Thyreoid extract was administered in all the cases, and it is a question whether the improvement was due to the oophorectomy or to the thyreoid extract.

The Surgical Treatment of Exstrophy of the Urinary Bladder. By Dr. J. Berg.—The author reaches the following conclusions: 1. No one method of treatment is suitable for every case of exstrophy of the bladder. The less dangerous treatment—by direct union—should always be thought of first. 2. When the circumstances are not favorable, they may be rendered so by a synchondrosiotomy or an osteotomy. 3. The method of operating with a single skin flap covered by Thiersch's plan on its deep surface, is to be preferred to the autoplastic method. 4. The operation of John Simon will probably supersede others in a number of cases.

On the Substitution (when Practicable) of Subastragalar for Syme's Amputation. By J. Hutchinson, Jr., F. R. C. S.—The advantages claimed for the subastragalar method over Syme's operation are as follows: 1. The stump is some two inches longer. 2. It gives a broader base of support. 3. The elasticity due to the ankle movements is a marked advantage in walking. 4. The pad of soft tissue at the end of the stump is much thicker. 5. The arterial supply of the flap is better, and runs less risk during the operation. 6. An artificial foot can be better fitted to the stump. To obtain a good result, the soft parts of the sole ought to be in good condition nearly as far forward as the base of the fifth metatarsal bone. The condition of the heel may be such as to allow only of a Syme's operation. The view held by some that "the stump left by an amputation through the ankle joint is eminently superior to that made at any other point of the foot or leg" can no longer be maintained.

Observations upon Injuries to the Internal Lateral Ligament and to the Internal Semi-lunar Cartilage of the Knee-joint. By Dr. J. Griffiths.—The author discusses the nature and causes of these injuries and describes a knee brace which effectively prevents outward lateral movements of the knee, and secures to the overstretched or torn ligament quiet for the gradual process of its restoration.

Three Cases in which the Superior Cervical Ganglion of the Sympathetic was Removed, with Remarks upon the Operation. By F. F. Burghard, F. R. C. S.—The author reports three cases of this operation, performed for sub-acute glaucoma and severe facial neuralgia. In all three patients great benefit resulted. The constant symptoms following the operation were ptosis, severe pain in the head on the side operated upon, and congestion of the vessels of the face. In one case the decrease of intra-ocular tension was very marked. Exophthalmos was observed in one case.

Plastic Operation for Incontinentia Ani. By K. G. Lennander, M. D., Hon. F. R. C. S.

Some Remarks upon the Innervation of the Muscles which are Concerned in the Plastic Operation for Sphincter Ani. By M. Ramstroem.

Prostatectomy in Two Stages. By W. B. Clarke, F. R. C. S.—The author advises that the actual operation for removal of the prostate be preceded a few days by a supra-pubic cystotomy. When the patient has recovered from this operation, an incision is made in the perinæum as for lateral lithotomy, the enlarged prostate is pushed down toward the perinæum by a finger introduced through the supra-pubic opening, and each lobe is shelled out separately through the perineal incision. Seven cases in all have been submitted to this plan of treatment, and all the patients have recovered. Only one of them gave the slightest cause for anxiety.

The Open Operation for Talipes (Equino-varus). By Dr. A. M. Phelps, of New York.—The conclusions reached by the author are as follows: 1. All feet, at any age after the fourth month, with shortened skin and ligaments should be operated upon by open incision. 2. Prolonged mechanical treatment in any case is wrong. 3. Many such cases can be benefited or cured, but the surest and easiest plan is to operate. 4. The operation is not completed until the foot is placed in the over-corrected position, fixed upon the leg with the heel prominent so that it strikes the ground in walking before the anterior segment of the foot does. 5. Club-foot shoes of every nature have been discarded by the author. The human hand is the best club-foot shoe ever devised. 6. The treatment just begins after the operation is completed. 7. Osteoclasis should be performed in all cases of inward twist of the tibia, or relapse may be looked for. 8. Bone operations should never be performed primarily. 9. Open incision should supplement all cases of subcutaneous tenotomy when it fails to over-correct. 10. Short tendons and ligaments should be cut, and not stretched, as prolonged stretching deforms the entire tarsus. 11. A case cannot be said to be cured and free from the dangers of relapse until the heel strikes the ground first in walking. 12. A cure is effected when new facets are formed on the tarsal bones. 13. Pirogoff's amputation was required in one-fourth of one per cent. of the author's series of cases. 14. Open incision should never be performed unless the skin resists, and will not stretch sufficiently to allow of over-correction and the proper unfolding of the foot. 15. The weight of the body falling upon any club-foot shoe or brace, nullifies the action of the apparatus.

Journal des praticiens, October 13, 1900.

Spinal Anæsthesia.—Professor Pierre Delbet speaks of the disagreeable phenomena which accompany the injection of cocaine into the interachnoid space. He agrees with Racoviceanu, who is personally pleased with his results, but hesitates to recommend it on account of the concomitant disagreeable and painful accidents. He does not regard it as always practicable. The author says that the method is still in its experimental stage and cannot, and should not, be universally recommended.

Use of Bleeding of the Liver in Acute Hepatitis.—Dr. Paul Remlinger recommends bleeding of the liver in cases of acute hepatitis of dysenteric origin. It is easily accomplished and, when done under aseptic conditions, is productive of no harm. From four to five ounces can be withdrawn at one time. It reduces the congestion of the organ and seems to limit the pathological process.

An Old Preparation for Scurvy.—Dr. Liégeois gives the formula of an old preparation which was formerly used in scurvy. The original author of it he does not know:

Dried cones of cultivated hops, Flowers of lesser centaury,	of each... 600 grains;
Stripped bark of orange............	150 "
Carbonate of potassium............	15 "
Alcohol at 60°.	22 ounces.

The reporter has found this useful in prurigo, ecthyma, acne, urticaria, furuncles, pityriasis and styes, which bear an evident relation to atonic dyspepsia. From two to forty drops may be given to children, a teaspoonful to adults, before each principal meal. In dyspepsia and in the dermatoses of dyspeptic origin, this preparation should be alternated day by day with small doses of vichy salts before meals, and muriatic acid after meals. It gives good results, too, in glandular scrofula and in strumous impetigo, when given for five or six months.

Country Doctors and Small Private Sanatoria. By Dr. A. F. Plicque.

Journal de médecine de Paris, October 7, 1900.

Lactic Secretion and Emptiness of the Uterus.—M. Flandrin says that, in a medico-legal sense, the phenomena which characterize the appearance of milk in the breasts following an apparent abortion, allow one to affirm only the entire emptiness of the uterus in the absence of all material evidence of the fœtus or the membranes.

Treatment of Hare-lip in Children.—M. Albert Mills advises early operation, as the cosmetic effects are more likely to be better, for the scar will be less unsightly with advancing years. The hæmorrhage must be well controlled. The author describes the technical details of his method of operating, which does not differ essentially from that in general practice.

Cardiac Complications in Rheumatism in Infants.—M. M. H. Barbier briefly discusses the gravity of the heart affections in acute articular rheumatism occurring in children. He emphasizes the extreme gravity of these affections, and says that death may follow from three to six months after the initial onset of rheumatism.

October 14, 1900.

Combination of Diseases in a Young Woman.—M. A. Raïchline reports the case of a young woman of twenty-four years of age who was suffering simultaneously from a subacute epithelial nephritis, nephritic colic due to a movable kidney, and Basedow's disease, and was, at the same time, an hysterical subject.

Prostitution and its Regulation in Italy. By Professor Tommassoli. (*To be continued.*)

Presse médicale, October 10, 1900.

Appendicular Inflammation, with Distant Peritoneal Infection.—M. André Lapointe records the case of a woman twenty years of age, who, after a typical attack of appendicular inflammation, presented a circumscribed abscess in the right iliac region. This was opened and drained, but the patient continued to give evidence of profound sepsis. From the physical signs, an abscess of the liver was diagnosticated. The eighth, ninth and tenth ribs were resected after aspiration showed the presence of pus. No pus was obtained by the operation, however. The autopsy disclosed miliary abscesses of the liver and a large sub-hepatic abscess. The kidneys were hypertrophied. The sub-hepatic abscess showed no direct communication with the original seat of disease.

Pathological Anatomy of the Spleen. By M. Dominici.

Indépendance médicale, October 10, 1900.

Subdiaphragmatic Abscess of Gastric Origin.—M. Faure reports the operation upon a man forty-five years of age who had been admitted to the medical ward with a history of severe gastric dyspepsia without vomiting, hæmatemesis or melœna. On the right side, in the neighborhood of the diaphragm, there was a sensitive, painful area. An irregular temperature was present. The operation disclosed a subdiaphragmatic abscess lying between the liver and the diaphragm. The author believed it to have its origin in a neoplasm or ulcer of the stomach.

Tribune médicale, October 3, 1900.

Bucco-pharyngeal Tuberculosis.—M. Samuel Bernheim says that this form of tuberculosis is more common than is usually believed. It may be primary, or secondary to a general infection, and may remain localized. The situation of the tuberculous ulcers is variable; it may attack all the organs in the bucco-pharyngeal cavity, the lips, the inside of the cheeks, the alveolar margins, the maxillary bones, the tongue, the palate, the palatine vault or the tonsils. The recognition of the tuberculous character of these lesions is very important for treatment as well as for prophylaxis. The treatment is purely local, and when combined with appropriate general measures, is usually efficacious. A cure is the rule, but an early diagnosis is essential for this purpose.

Progrès médical, October 6, 1900.

Heredity.—M. Chantemesse delivered an address on this subject during the last semester. (*To be continued.*)

Lyon médical, October 7, 1900.

General Subcutaneous Emphysema in a Case of Miliary Tuberculosis.—M. P. Chatin and M. Piéry report a case of miliary tuberculosis in a boy of sixteen years who presented a subcutaneous emphysema of the chest, the trunk, and the lower part of the face and the neck. At the autopsy, it appeared that the emphysema was due to an orifice in the anterior part of the lung in the region of the hilus beneath the visceral pleura. The channel of air could be traced to the mediastinum.

Three Cases of Cholecystogastrostomy for Biliary Retention in Cancer of the Head of the Pancreas.—M. Maurice Patel reports three such cases. He concludes that it is necessary to intervene surgically when the ductus choledochus is obstructed, although the diagnosis between cancer and a calculus is often difficult. Even if a cancerous growth is found, the flow of bile can be diverted into the stomach, an operation useful to the patient, since the jaundice is avoided if there is no concomitant cirrhosis. It is preferable from a physiological standpoint to perform a cholecystogastrostomy, which is easier than cholecystduodenostomy and less dangerous than cholecystenterostomy.

Rhinoscleroma in Man and "Sniffling Disease" in Hogs.—M. Louis Dor points out the results of bacterial examination in the two diseases and finds them similar. He suggests that human rhinoscleroma is due to contamination from hogs.

Centralblatt für Chirurgie, October 6, 1900.

Hahn's Method of Disinfection of the Hands.—Dr. Johannes Hahn scrubs the hands and arms in water at 105° F., changing the water four times. He uses ordinary green soap. After the second change of water, the nails are cleaned and cut. He then washes the hands in sublimated alcohol for four minutes; then immerses them for two minutes in a two-per-cent. solution of bichloride of mercury. His operative results are excellent.

Centralblatt für Gynäkologie, October 6, 1900.

Cyst Formation from Ovarian Remnants.—Dr. Edmund Waldstein reports four cases in which after extirpation of both adnexa, including the ovaries, cysts were found subsequently, undoubtedly arising from small remnants of the ovary, which were left behind. In all the cases, the uterine appendages were the seat of inflammation. The author says that when pieces of ovary are allowed to remain for physiological reasons, one must not forget these consequences, or the evidences of peritoneal irritation or pains induced by adhesion, which they may call forth.

Abortion Due to Uterine Blennorrhœa.—Professor D. Draghiescu and Dr. L. Lion-Moschuna report the case of a young woman of eighteen years of age who aborted at two months. She had a profuse discharge, partly blood-stained. Careful bacteriological examination of the fundus uterus disclosed gonococci, both in culture and on the slide. This examination was made within a few hours of the abortion so that the gonorrhœa was probably the cause of the fœtal expulsion, not a later infection. The authors ascribe the abortion to a gonorrhœal endometritis.

Berliner klinische Wochenschrift, October 1, 1900.

On Hypnotics.—Professor O. Binz writes an historical, and in part physiological, essay on remedies for inducing sleep.

Phenylhydrazin Test for Sugar in the Urine.—Dr. Maigulies commends Neumann's modification of the phenylhydrazin test for glucose in the urine as the most delicate known and the best for general use.

Oil Enemata. By Dr. E. Koch.

The Rôle of Fixed Cells in Inflammation. By Professor P. Baumgarten. (*Concluded.*)

Physiology and Pathology of the Secretion of Bile.—Dr. Albu, from experimental and clinical evidence, concludes that the bile plays no rôle in the inhibition of putrefaction of the intestinal contents. (*Concluded.*)

Experimental Albumosuria. By Dr. G. Zuelzer.

October 8, 1900.

Some Problems of the Cell and their Significance in Organic Therapy. By Professor David Hansemann. (*To be continued.*)

The Treatment of Bronchial Diseases by Posture.—Dr. O. Jacobsohn speaks favorably, from his experience, of Quincke's suggestion of treating bronchitis and bronchiectatic processes by posture. In acute processes in which the mucous membrane is hypersensitive, the measure is useless, and even harmful. In chronic cases, however, in which the bronchial mucous membrane has lost its reflex excitability and the smooth muscles of the bronchioles their tone, good results may be achieved. Abscesses of the lung, empyemas which have broken through, and similar processes, are not benefited by the postural treatment. In cases of fœtid bronchitis, the relief obtained is marked. The purpose of the treatment is to drain the secretions from portions of the mucous membrane which are not irritable into areas which still retain their irritability, and by the force of gravity to cause an evacuation by coughing. The posture is the dorsal one with the foot of the bed gradually raised by means of bricks. It is practised morning and evening for an hour each. In fifteen minutes, some result should be achieved; if no sputum is obtained by this time, the procedure is usually useless. In ordinary cases, the entire day's secretion may thus be evacuated.

Preservation of Specimens in their Natural Colors.—Dr. Ludwig Pick has used with great satisfaction a hardening solution of this formula:

Carlsbad salts....................	750 grains;
Formalin.......................	750 "
Distilled water....................	30 ounces.

(*To be continued.*)

Eye-magnets. By Dr. Siegmund Türk.

Anatomy of the Accessory Cavities of the Nose.—Dr. Gustav Brühl concludes from his studies that infection of the antrum of Highmore can take place only if the antrum is large or of medium size. To open the antrum through the canine fossa, if the antrum is small, is successful only if the opening is made close to the infraorbital ridge.

Use of the Milk Thermophore.—Dr. Paul Sommerfeld says that milk kept in a thermophore for five hours is as free from bacteria as sterilized milk. Tubercle and typhoid bacilli are rendered innocuous by this time. Previously sterilized milk placed in the thermophore is rendered absolutely free from germs in five hours.

Wiener klinische Wochenschrift, October 11, 1900.

Trachoma. By Dr. C. Ziem.—A continued article of which this instalment deals mainly with historical data.

Normal Great Toe Reflex in Children.—Dr. Fritz Passini says that in the last quarter of the first year of life, the great toe begins to be held in the flexed position in healthy, well-nourished children. In others, extension of the digit remains. This phenomenon is explained by change in function of the muscles of the foot. In disease or degeneration of the pyramidal tract, the toe remains in extension, as it does in maldevelopment of cortico-spinal tract, as in microcephalus and anencephalus.

Disinfection by Formaldehyde.—Dr. Basil Kluczenko prefers formalin (a forty-per-cent. aqueous solution of formaldehyde) for disinfecting purposes after contagious disease. It is a cheap and certain destroyer of noxious germs.

Wiener medizinische Blätter, October 11, 1900.

Development of Biology in the Nineteenth Century.—Professor Hertwig writes an entertaining essay on the biological discoveries of this century and the results they have had upon general science. He dwells particularly upon the cell and its attributes.

Pathology in the Nineteenth Century.—Professor Chiari cites the influence of pathological anatomy on diagnosis, prognosis and treatment, and urges even a keener recognition of its value by clinicians.

Action of the Thyreoid Extract upon the Central Nervous System.—Dr. Ladislas Haskovec decides from experimental evidence that the lowering of blood pressure following an injection of the thyreoid juices is due almost entirely to the action upon the heart itself by weakening its beats.

Action of Alcohol on the Innervation of the Heart.—Dr. Ladislas Haskovec says that the retardation of the pulse is brought about by an irritation of the vagus centres, and of the peripheral ends of the vagi, in part due to a direct cardiac action. The fall in blood pressure is due to a direct injurious influence upon the heart muscle.

Ratio of the Sexes in Austria in 1895-1896. By Dr. S. Rosenfield.

Deutsche Aerzte-Zeitung, October 15, 1900.

Diagnosis and Treatment of Croup.—Dr. Paul Hilbert believes that the present method of bacteriological diagnosis is of the greatest value in helping to a diagnosis between diphtheria and other forms of croup. He considers it proper to treat every case of croup, primary or secondary, with or without pharyngeal affection, as though it were of a diphtheritic character; that is, to administer antitoxine. The symptoms of diphtheria are so pronounced, that it can be confounded only with pseudocroup, which is easily recognized by its sudden appearance, short duration, and its yielding to almost indifferent medication.

Allenbury's Milk Food.—Dr. B. Bendix finds that this food diminishes vomiting and diarrhœal, slimy stools in infants with gastro-enteritis. It is useful, also, for constant feeding.

Aspirin.—Dr. Fritz Valentin has used aspirin in sixty cases of acute and chronic articular rheumatism. He observed few sequelæ, except an occasional profuse perspiration and, many times, severe ringing in the ears. The curative results were not especially good. In muscular rheumatism, not much relief was afforded by the drug. In supraorbital and intercostal neuralgia, however, the drug seemed to be more efficacious. The dose is smaller than that of the salicylates—from forty-five to sixty grains a day being sufficient. It is easily borne, does not upset the stomach and is less disagreeable in taste than the salicylate of sodium.

Pathogenesis and Theory of Gout.—By Dr. D. Spritzer. (*To be continued.*)

St. Petersburger medicinische Wochenschrift, October 6, 1900.

Parasitology of Hanot's Disease.—Dr. N. N. Kirikow concludes that patients suffering from hypertrophic icteric cirrhosis of the liver (Hanot's disease) are probably the victims of a chronic bacteriæmia. The presence of bacteria renders the patients susceptible to any outbreak of violence on their part under suitable conditions, as malnutrition. These bacteria in the blood explain the clinical course of the disease as well as the intermittent improvements and relapses, the fever and the closing picture of a severe infectious jaundice. The mode of entrance of the germs into the organism and their specific nature are not yet explained.

Wiener klinische Rundschau, October 7, 1900.

Surgical Treatment of Dropsy.—Dr. M. L. H. S. Menko uses a modification of Curschmann's cannulæ which are inserted into the dropsical extremity by means of a trocar. No anæsthesia is employed. The patient is in the recumbent posture, and but one extremity at a time is attacked. The flow of serum can be stopped at any time by a valve in the rubber drainage tube, which is part of the apparatus. The author reports encouraging results from the use of his device.

Contributions to Abdominal Surgery (*continued article*). By Dr. W. Kopfstein.

Prophylaxis and Treatment of Tuberculosis.—Dr. Alexander R. von Weismayer says the great danger lies in "unclean" tuberculous persons, especially among the poor. It is right to demand the cessation of spitting in all public places. It is desirable to treat tuberculous subjects in the same climate in which they must subsequently dwell. Cases must be individualized, the nourishment must be rigidly supervised, hydrotherapy and all other curative means must be employed. In the education of the people lies the great hope of prophylaxis.

October 14, 1900.

Examinations for Gonorrhœa in Prostitutes. By Dr. Karl Gumpertz. (*To be continued.*)

Casuistic Contributions to Abdominal Surgery (*concluded*).—Dr. W. Kopfstein reports, in this final instalment, cases of intestinal twisting with multiple adhesions (recovery), and pseudoperityphlitis (recovery). The author's technique in abdominal surgery is exceedingly simple, to which fact he attributes much of his success.

Gazzetta degli ospedali e delle cliniche, September 30, 1900.

A Case of Atrophic Cirrhosis of the Liver, with Preascitic Œdema. By Dr. G. P. Morano.—Cases of this kind are comparatively rare and the mechanism of the œdema which appears before there are any signs of ascites is not yet fully understood. The author discusses the various theories as to the causation of this œdema, and reports a case, with autopsy, in which there was œdema of the skin, long before ascites appeared. Among the causes given for the œdema are: Inflammatory changes in the wall of the ascending vena cava (De Giovanni); autotoxic depression of the heart (Maragliano and Queirolo); constriction of the vena cava as it passes through the liver, before the portal vein is affected (Peesle), and a deficiency of the collateral circulation (Vanni). In the present case the vena cava was found to be the seat of phlebitis, and in its tunica media there was new connective tissue formation. Therefore the tone of the vessels was certainly changed. In addition, the vena cava was deeply imbedded in the hepatic sulcus, so that the adjacent liver tissue met over it, thus transforming the sulcus into a canal. Another possible cause of the circulatory disturbances was the abnormal angle which the vena cava made in consequence of adhesions to the posterior surface of the liver.

Polymyoclonus and Epilepsy. By Dr. Cesare Mannini.

A Contribution to the Radical Cure of Umbilical Hernia in Adults. By Dr. A. Cunco.—The author reports five cases in which he performed radical operations for umbilical hernia. The patients were all old or middle-aged, and the hernial sacs of large size.

Concerning an Epidemic of Pneumococcic Conjunctivitis. By Dr. G. Gonsalvo.—The author emphasizes the importance of bacteriological diagnosis in cases of conjunctivitis, especially the value of such diagnosis early in the disease, when the inflammation is not yet far enough advanced to enable the physician to distinguish what variety of conjunctivitis he has to deal with. The epidemic which the author studied occurred in Vittoria in 1899. On bacteriological examination he found, in some cases, the bacillus of Koch and Weeks, and in others the pneumococcus. He draws the following conclusions: (1) Pneumococcic catarrhal conjunctivitis is a contagious affection which occurs endemically or in epidemics, attacks individuals at all ages, and usually runs an acute course of about ten days' duration, but may become chronic. It is of a rather benign nature, and rarely affects the eye itself. It is produced by Fraenkel's pneumococcus. (2) The cases observed by the writer during the aforesaid epidemic were essentially cases of the pneumococcic variety of conjunctivitis.

Riforma medica, September 26, 1900.

A Case of Probable Aneurysm of the Right Middle Cerebral Artery. By Dr. Angelo Lisanti.

September 27, 1900.

Acute Fibrinous Bronchitis Complicating Influenza. By Dr. Luigi Mascangioli.—Primary acute fibrinous bronchitis is very rare, and secondary cases are still less frequent, especially those that complicate infectious diseases. The author reports the case of a man aged sixty-two, who during an attack of influenza and mucous enterocolitis developed at first a slight bronchitis, which soon became worse and was accompanied by severe constitutional symptoms. There was an area of bronchial breathing at the right apex, but no other signs of pneumonia. Examination of the expectoration removed all doubts as to the nature of the bronchial affection.

Vratch, September 23, 1900 (October 5, N. S.).

The End of the Growth of Zemstvo Medicine. By Dr. D. N. Jbankoff.—Under the name "zemstvo medicine," is understood in Russia the organization of the medical service of the rural and provincial districts. The country is divided for administrative purposes into "governments" or provinces, and each province into a number of districts. The latter are again subdivided into medical districts, each of which is supposed to contain at least one hospital, and one or more physicians who are paid fixed salaries by the zemstvo (communal government) and whose duty it is to attend medical and surgical cases within their district gratuitously. As a rule they are provided by the commune with horses and carriages or sleighs, as their visits are often made to great distance. Many of them also are in charge of out-patient departments, or of small rural hospitals in a central locality in the district. The author considers the needs of zemstvo medicine, especially with reference to a new law which has been recently passed in Russia, restricting the increase of taxation in such a way that very little progress can be made in the near future in the organization and equipment of the zemstvo medical service. At present many of the hospitals are totally inadequate and very badly equipped, and the districts are too large in many instances, so that it is impossible for the medical *personnel* to take care of the medical work, the supervision of sanitation, the prevention of contagious diseases, etc.

Concerning the Methods of Staining Fat. By Dr. J. B. Levinson.—The author found that in staining nerve fibres by Wolter's method, droplets of fat resisted the action of decolorizing agents, and assumed a deep blue color. This, with the fact that osmic acid and Sudan III are not satisfactory methods of staining fat, induced him to study Wolter's stain with reference to its action on adipose tissue and fat droplets. After a series of experiments, he found that the following method gives a satisfactory stain for fat: (1) Fixation in Mueller's fluid for from two to five weeks, depending upon the size of the specimen. Dehydration in alcohol, beginning with seventy per cent. Imbedding in celloidin. (2) Sections about 10 to 15 μ in thickness are transferred directly from the alcohol into the dye, where they remain for twelve hours at 40° C. The staining solution used is the same as that recommended by Wolter, namely, a twenty-seven-per-cent. solution of hæmatoxylin, according to Koultchitzky (2 grammes of hæmatoxylin are dissolved in a little absolute alcohol and mixed with 100 c.c. of two-per-cent. acetic acid). At first this dye is yellow in color, but if allowed to stand it will turn red, and its staining power will increase. (3) Washing in water. (4) One-per-cent. aqueous solution of potassium permanganate, for from ten to fifteen minutes. (5) Washing in water. (6) Two-per-cent. solution of oxalic acid. The drops of fat stain a grayish violet, the surrounding portions of tissue being completely decolorized. If this is not the case, the decolorization may be repeated after a trial section has been examined under the microscope. If it is desired to counter-stain the tissues, strong solutions of carmin for twenty-four hours will give good results.

A Case of Bloody Cyst of the Pancreas. By Dr. V. I. Lisiansky.—The patient was a boy aged eleven years, who entered the hospital with a tumor in the upper part of the abdomen which was about the size of two adult heads. On exploratory operation, it was found that the swelling was a large cyst of the pancreas that was filled with thick blood. The walls of the cyst were sutured to the edges of the abdominal wound, and a gauze drain was introduced. Two days after the operation, the patient's skin was covered with an erythematous eruption. The author attributes this to the fact that some of the contents of the cyst was absorbed by the peritonæum during the operation. The remainder of the post-operative period was uneventful, but the patient is still under observation.

A Case of Ciliary Neuralgia of Paludal Origin. By Dr. A. L. Orlofsky.—The term ciliary neuralgia stands for attacks of pain in the region of the ciliary nerves that supply the eyeball with sensory fibres. There are two varieties of this affection, the secondary and the idiopathic. The former constitutes a fairly frequent symptom of various diseases of the eyeball, the latter is due to some general infection. The case reported here was of malarial origin, the patient being the author himself. In the course of an attack of malaria he was seized with a severe pain in the left eyeball. At first the pain appeared only on pressure upon the eyeball, and on examination no changes were found in the eye. The pain became acute, shooting, boring, and aggravated by light. There appeared lacrymation, a burning sensation in the eye, and painful spasmodic contractions of the eyelids. Applications of cocaine and various other remedies were tried, but in vain. Finally subcutaneous injections of quinine and of morphine were ordered, and the pain disappeared after the first injection. Five days later, the patient was seized with an attack of neuralgia of the teeth, and this also yielded quickly to subcutaneous injections of quinine. The writer concludes that the neuralgia of the eye, as well as that of the teeth, was due to malarial infection.

A Case of Malarial Pleurisy. By Dr. K. N. Cardo-Syssoieff.—The case here reported is noteworthy because the friction sound caused by the presence of a dry pleurisy disappeared and reappeared periodically during the two months in which the patient was under observation. The author constructed a chart showing the disappearance and reappearance of the friction sound. The disease did not yield very readily to quinine. The friction sound reappeared with remarkable regularity at the same time of day. At first, it was heard in various places; afterward, it became diffused over a large portion of the lungs. There was no cough in spite of the long duration of the disease and the severe pain and disturbance in breathing.

Concerning Operations under Local Anæsthesia. By Dr. A. G. Hinodman.—The author gives an outline of the history and literature of local anæsthesia, and reports a number of operations which he performed under Schleich's method.

Roussky Archiev Pathologyi Klinitcheskoy Meditsiny i Bakteriologyi, August, 1900 (Russian Archives of Pathology, Clinical Medicine and Bacteriology).

A Contribution to the Study of the Acquired Lesions of the Pulmonary Valve. By Dr. M. J. Fisch.—The author relates a case of ulcerous endocarditis situated on the cusps of the pulmonary valve. The patient was a young woman aged eighteen, who complained of dyspnœa and of generalized œdema. The heart was enlarged in all directions, especially the right. In the second left intercostal space, two murmurs, systolic and diastolic, of rasping quality, could be distinguished. At the apex a soft systolic murmur was heard. The second aortic sound was somewhat accentuated. The urine contained albumin. The temperature was elevated. The diagnosis was one of mitral insufficiency and, probably, insufficiency and stenosis of the pulmonary valve. At the autopsy, the latter valve was found to be in a state of ulceration and the mitral valve had calcified nodosities on its free border. The author also cites twelve cases of acquired lesions of the pulmonary valve which he found in medical literature, in addition to the cases collected by Barié in his article on the subject (*Archives Générales de Médecine,* June to August, 1891).

Kumyss as a Therapeutic Agent. By Dr. K. T. Fleuroff (*continued*).—An experience of six years with kumyss (fermented mare's milk) in the treatment of various maladies, enables the author to draw the following interesting conclusions: (1) In all cases of anæmia (twenty-nine) and in the cases of neurasthenia and hysteria treated by him with kumyss he has observed improvement of the general condition as well as in all the symptoms. (For the method of using the kumyss, see abstract of the first part of this article in *New York Medical Journal,* October 6, 1900, page 609.) (2) He has observed aggravation of the pain in some cases of hepatic and renal colic after the use of kumyss. (3) Negative results were obtained in the cases of heart disease and in diseases of the vessels. As the result of the difficulty of the heart's action in consequence of the great quantities of liquid present in patients who take kumyss treatment there were symptoms of tachycardia, stenocardia, etc., in some instances. (4) Negative results were also obtained in cases of tuberculosis in which several organs were affected at the same time, in cases of acute pulmonary tuberculosis in young persons, and in cases of extensive chronic tuberculosis. (5) In early cases of tuberculosis, very good results were obtained by the use of kumyss; all the symptoms were improved and the general health was greatly benefited. (6) The treatment with kumyss must be continued as long as possible. (7) The diseases in which kumyss is contraindicated are as follows: Atheroma and heart disease, abdominal plethora, rheumatism and gout, cerebral hyperæmia, the last stages of phthisis, hepatic and renal colic. (8) Special sanatoria are needed for the treatment of patients by kumyss in the steppes of Eastern Russia.

Concerning the Pathogenesis of Acute Yellow Atrophy of the Liver. By Dr. N. Th. Baimakow.—The patient was a woman, aged twenty-three years, and was admitted in a state of delirium which soon gave place to coma. Her liver on percussion was found to reach only to the sixth rib in the mammary line, and to the eighth in the axillary line. The urine contained traces of albumin, bile pigments, leucin and tyrosin. These facts pointed to acute yellow atrophy of the liver. The patient died on the seventh day after admission, and the autopsy confirmed the diagnosis. The liver measured twenty-three centimetres in length against thirty to thirty-five centimetres in normal subjects. The thickness was only five centimetres against eight to ten centimetres normally. The liver tissue was markedly atrophied, in places the sections were uniformly dark red, in others mottled, brownish-red, green, brown, yellowish-red, and yellow. The interstitial tissue was hypertrophied in places. On microscopical examination the limits of the lobules appeared indistinct. The limits of the cells also seemed to have disappeared, so that a group of cells looked like one giant cell with numerous nuclei. Fatty degeneration was found in all parts of the liver. Granular infiltrations were found around the veins. The author also found certain diplococci in the blood and in the tissues. These diplococci were found in groups of from five to ten. They were concave on one side and convex on the other, and were surrounded by an areola that resembled a capsule. All attempts at cultivating these diplococci failed. They were easily found in the blood of the patient by Chencinsky's method. It is possible that they are the true cause of acute yellow atrophy of the liver.

Chemical Examination of the Liquid in a Case of Milky Nonchylous Ascites. By Dr. Scherbatscheff.—The liquid examined was obtained from the peritonæum of a man who had died of a syphilitic affection accompanied by all the symptoms of acute nephritis. On standing, this milky ascitic fluid did not separate into several layers, as such fluids usually do, but remained uniformly opaque. It was found that it contained no fat, and by the centrifuge only a slight amount of sediment consisting of leucocytes was found. The fluid was found to contain albumin, bile pigments, urea, and a slight trace of fat, not more than is found in nonchylous ascitic fluid. The white color, therefore, was not due to fat, but to an albuminous substance. Hence the presence of milky ascitic fluid does not necessarily mean that the effusion is chylous.

Affections of the Spinal Cord in Hereditary Syphilis in Newly Born Children and in Nurslings. By Dr. R. Peters.

Annals of Surgery, October, 1900.

The Surgical Treatment of Primary Renal Tuberculosis, with a Consideration of the Immediate and Remote Results after Operation. By Dr. Otto G. Ramsay. —The author believes that this is a semi-malignant form of inflammation, and consequently amenable to surgical treatment. The success of surgical intervention depends upon the patient's condition and the duration and extent of the disease. Nephrotomy, with drainage of the abscess cavity, would seem to be the most valuable operation. Resection is contra-indicated in renal tuberculosis. Nephrectomy or nephro-ureterectomy in suitable cases should be followed by a lasting cure in 55.5 per cent. of the cases. Disease of the second kidney or tuberculous foci in other organs (bladder excepted) are indications against nephrectomy. The clamp method of controlling the pedicle is contra-indicated from the danger of hæmorrhage after removing the clamp. That we may expect a steadily increasing number of final cures as our means of diagnosis improve, and as our surgical technique is carried out more carefully, is the final conclusion of the author.

A Study of One Thousand Operations for Acute Intestinal Obstruction and Gangrenous Hernia. By Dr. Charles Langdon Gibson.—If statistics are to be used at all, their compilation should be conducted with care and discretion, and these statistics are the result of a most careful analysis by one who possesses, perhaps, a maturer experience than is usually given to such work.

Mesenteric Cysts. By Dr. Charles N. Dowd.—The occurrence in the transverse mesocolon of a multilocular cystadenoma which contained pseudo-mucin, and which was exactly like a cystadenoma of the ovary, suggests its probable origin as an embryonic ovarian sequestration, while the occurrence of dermoid cysts in a similar position suggests a similar origin. The occurrence of chylous cysts in the mesentery, having the structure and appearance of ovarian and parovarian cysts, and having in their walls lymph vessels, suggests embryonic cysts into which there has been an effusion of chyle. The sanguineous cysts appear to be preformed cysts into which hæmorrhage has taken place. The presence of cysts which have the structure of the intestinal wall suggests sequestration from the intestine. Serous cysts are apparently similar in origin to the cysts already considered. Hydatid cysts form a class by themselves and are due to the *Tænia echinococcus*. Reports indicate that mesenteric cysts are being removed at least as often as once a month. If microscopical and chemical examinations were made as a routine, in these cases, the entire subject would soon be understood. It is probable that all mesenteric cysts may be included in the classifications: (1) embryonic cysts; (2) hydatid cysts; (3) cystic malignant disease. A very extensive bibliography accompanies this article.

Dislocation of the Humerus, Complicated by Fracture at or near the Surgical Neck. By Dr. Charles Baldwin Lyman.

Remarks on the Technique of Prostatectomy, with Report of a Case. By Dr. Herman Mynter.

Suprapubic Retrocystic Extraperitoneal Resection of the Seminal Vesicles, Vasa Deferentia, and Half of the Bladder. By Dr. Hugh H. Young.

Excision of the Right Vas Deferens and Vesicula Seminalis for Secondary Tuberculous Disease. By Dr. James Alexander Hutchinson.

A New Method of Colpoplasty in a Case of Entire Absence of the Vagina. By Dr. Carl Beck.—The patient was an attractive young married lady who suffered from the entire absence of vagina, uterus, ovaries and tubes, and the operation was done that there might be a possibility of intercourse.

An incision was made above the symphysis; the peritoneopubic interval was enlarged by distending the bladder with a boric-acid solution; the transverse fascia was divided; the vesical fat bluntly dissected, and a large grooved director pushed downward into the wound till it could be felt from the vulva, while the protruding point was incised laterally from the urethral orifice. An oblong skin flap, with its base at the vulva, was then formed from each thigh. Their tips were seized by a forceps introduced through the suprapubic opening, and pulled up and fastened to the subcutaneous tissue there. The flaps were so situated that their wound surfaces were pressed against the walls of the new canal, while their skin surfaces faced each other. Iodoform gauze was inserted and no agglutination of the flaps took place. The operation was entirely successful, and the end for which it was performed was attained perfectly.

Tetanus: A Study of the Nature, Excitant Lesions, Symptomatology, and Treatment of the Disease, with a Critical Summary of the Results of Serum Therapy. By Dr. Alexis V. Moschcowitz.—The cerebrospinal fluid of tetanus patients is more toxic than the blood. All forms of tetanus are caused by the bacillus of Nicolaier. The antitoxine treatment has reduced the mortality from ninety to forty per cent. Other recognized therapeutic measures, however, should not be neglected. This is a concluded article and deals with the subject at great length and in an interesting and convincing manner.

Archives of Pædiatrics, October, 1900.

Acute Nephritis Following Influenza. By Dr. Rowland Godfrey Freeman.—The author's conclusions, based on a very limited number of cases, are that although albuminuria is fairly frequent with influenza, nephritis is a rare complication. The nephritis complicating influenza is clinically of the acute hæmorrhagic type and, morphologically, shows toxic lesions. It apparently attacks children more often than adults. The kidney disturbance may appear in a few days after the acute symptoms of the influenza, or as long as a month later. The prognosis is good.

Congenital Cardiac Malformation with Endocarditis and Anuria. By Dr. A. C. Cotton, M. A.—This case, with the autopsy findings, gives rise to the question of the relation of congenital malformation of the heart to anuria.

From the old theory that uric-acid precipitation was due to suboxidation we might infer that any cardiac malformation which interfered with the circulation of oxygenated blood through the kidneys would favor the accumulation of uric acid in these structures.

The later theory of Horbaczewski, however, that uric acid has its derivation from the nuclei of leucocytes, seems to explain the frequency of infarcts in the new-born, the presence of a marked leucocytosis in them being acknowledged. A diet which favors leucocytosis increases the deposition of uric acid, and, in the opinion of the author, it matters little whether the uric acid is derived from the nuclein of proteid ingested, or from the nuclein of the leucocytes called out by digestion—so long as it is admitted that thorough oxidation is necessary for complete metabolism, with resultant urea.

The frequency of uric-acid infarcts, when the still patent foramen ovale and ductus arteriosus render the heart physiologically incapable of furnishing arterial blood to the renal arteries, strengthens the author's opinion. The author sees an analogy between this condition and the congenital cardiac deformities, which are practically a persistence and aggravation of the conditions that normally obtain in the first few days of life.

Atresia of the Larynx Due to Traumatism, the Result of Faulty Intubation. By Dr. W. P. Northrup.—A laudable repetition of Dr. O'Dwyer's caution that this operation should be done by skilled hands and should include proper tubes.

Report of a Case of Pulmonary Stenosis. By Dr. Samuel McC. Hamill.

A Case of Suppression of Urine Apparently Due to Ascaris Lumbricoides. By Dr. Frank Vander Bogert.

Scottish Medical and Surgical Journal, October, 1900.

The Plague. By Dr. W. L. MacKenzie.—This article is based upon the recent outbreak of plague in Glasgow. After discussing its identity with ancient plague, the imperial defences against the disease, and quarantine, the author states that the chief source of danger to the community is the mild, ambulant case of plague. Wakes are not yet obsolete in Glasgow, and were held over the first victims of the epidemic, the nature of whose illness had not been recognized. A quick succession of cases revealed the situation. The original case of the outbreak was not discovered. At the time of writing, three patients had died at their homes and sixteen were under observation in hospital. Of these sixteen, eleven were removed from their homes with the disease, four cases occurred in the hospital among "suspects," and one case was due to indirect contact. The plague bacillus was found in eight out of the eleven cases admitted with the disease. Rats and the fleas that infest them are the principal means of carrying the plague from place to place. So far the *Bacillus pestis* has not been found in any rat killed or found dead in the defined area. Yersin's serum was freely used in Glasgow by means of intravenous injection, but the author says nothing of the result beyond that the clinical record, when it is completed, will be very striking. The author gives in full the various proceedings of the local authorities, in the way of prophylaxis, disinfection, etc., and appends a report on the bacteriology of the outbreak by Dr. J. Muir. He closes with the statement that "the price of freedom from plague is vigilance against dirt—and rats."

A Résumé of Our Knowledge of Diseases Transmissible from the Lower Animals to Man. By Dr. T. Shennan.

Cardiac Failure: A Clinical Lecture. By Dr. A. M. Stalker. (*A continued article.*)

On the Surgical Treatment of Aneurysms by Excision. By T. Annandale, F. R. C. S.—The author sums up the advantages of the treatment of aneurysms by excision, as follows: 1. If the operation can be successfully performed the result is a complete cure of the aneurysm. 2. The ligatures have the advantage of being applied to the ends of the divided vessels and not to them in their continuity. 3. Even if the corresponding vein is divided and a portion of it removed the risk of gangrene is not great. 4. That in this method all the advantages of the antiseptic treatment can be obtained, in connection with the successful healing of the wound and closure of the vessels where divided. 5. Inflammation and suppuration of the sac or rupture of it cannot occur in connection with this method. 6. Although as yet more experience is required, it seems likely that certain aneurysms such as the subclavian will in the future be treated more successfully by this method. The author expresses the opinion that in the near future, the treatment of all aneurysms of the limbs, whether "spontaneous," "traumatic," or "arteriovenous," provided they be tolerably circumscribed and free from complication, will be most effectively carried out by excision.

On Undue Adhesions of the Membranes as a Complication of the Third Stage of Labor. By Dr. D. B. Hart.—Separation of the membranes occurs normally in the following sequence: (1) separation of the prævial membranes in the first stage; (2) rupture of the bag of waters; (3) separation of the membranes above the level of the retraction ring during the third stage of labor, with stripping off as the placenta is expelled. Undue adhesion is apt to occur in women who have had endometritis before conception, or who have had a previous labor with some endometric complication. Adhesions in the third stage may be partial in extent, and in the lower uterine segment usually, or entire. The dangers are hæmorrhage during the third stage and sepsis during the puerperium. Treatment consists in the introduction of the sterile hand and the stripping off of the membranes, followed by an uterine douche of lysol.

Some Simple Surgical Appliances. By C. W. Cathcart, F. R. C. S.—The author describes a steam sterilizer invented by himself; he also recommends the use of confectionery jars as containers of sterile instruments, and also the rolling of gauze dressings in balls.

Jaw Jerk and Jaw Clonus. By Dr. A. James.—By means of a tambour, the author has investigated the reaction time of the jaw jerk as compared with the knee and ankle jerks, and also the rapidity of the jaw clonus. He concludes that (1) the reaction time of muscle or tendon jerks varies directly with the distance between the muscles concerned and their nerve centres in the cord or medulla; and (2) the rapidity of a clonus varies inversely as the same distance.

A Case of Perforating Gastric Ulcer, with Recovery after Suture. By J. S. M'Laren, F. R. C. S. Ed.—The author reports the case of a woman aged twenty years, who had suffered for some years from the symptoms of gastric ulcer. She was suddenly attacked with violent abdominal pain and nausea, but no vomiting. A diagnosis of perforated gastric ulcer was made, and operation was performed six hours later. On opening the abdomen, the opening was easily found in the anterior wall of the stomach. It was plugged with a shred of gauze, and the ulcer invaginated with a row of Lembert sutures, the plug being gradually withdrawn. The patient gradually recovered, the drainage tube being removed on the fifth day. A year after the operation she was in good health.

American Journal of Obstetrics, September, 1900.

The Evolution of My Technique in the Treatment of Fibroid Uterine Tumors. By Dr. Howard A. Kelly.—An interesting historical *résumé* of the progress along these lines for the past eighteen years.

Membranous Dysmenorrhœa. By Dr. Lydia M. DeWitt.—The points of diagnosis between the decidua of menstruation and the decidua of pregnancy are given in striking contrast, and Auvard, Virchow, Coquard, and many others are quoted in such manner as to form a readable article on this topic. The author's own cases are given in detail.

The Technique of Operations for Intraligamentary Tumors. By Dr. William N. Wathem.

Puerperal Eclampsia; Statistics of Columbia Hospital. By Dr. John F. Moran.—These statistics are interesting. No one line of treatment has been pursued at the hospital. In addition to the eliminative treatment, chloral and morphine have been most frequently used. During the past six years veratrum viride has been given in a number of cases, but it has not been pushed to the limit recommended by some authorities. The forceps has been used to accelerate delivery where the cervix was yielding and medicinal measures failed to control the convulsions. The compiler believes that the most rational and efficacious treatment of eclampsia lies in prophylaxis, and, contrasting the great mortality to both mother and child under all forms of treatment for convulsions with the excellent results obtained from judicious management of impending eclampsia, we forcibly realize the truth of this statement.

Compression of the Ureters by Myomata Uteri. By Dr. J. H. Mason Knox, Jr.

On Suspending the Uterus on the Round Ligaments. By Dr. Carl Beck.—The only disadvantage of this operation and its modification is the fact that it requires the opening of the peritonæum. It has, however, the great advantage of suspending the uterus free and movable in a perfectly normal position which permits of such free motion that there is interference neither with the bladder or with the rectum, and, consequently, there is no obstacle to pregnancy, as after the usual methods of ventrofixation.

Spontaneous Amputation of Tube and Ovary. By Dr. George H. Noble.

The Rôle of the Liver in the Production of Eclampsia. By Dr. W. A. Newman Dorland.

A Case of Metastatic Papillary Adenocarcinoma of the Recto-vaginal Sæptum. By Dr. Henry D. Beyer.

Clinical and Pathological Records of Two Rare Gynæcological Conditions. By Dr. William H. Weir.—The two cases comprehended in the title are: (1) primary cancer of the cervix uteri in a nulliparous woman; (2) fibromyomata of the uterus and fibroid of the right ovary.

Puerperal Metritis, etc., with Subsequent Acute Infection of Fistula in Ano. By Dr. J. Coplin Stinson.

A Case of Extrauterine Pregnancy, with Retention of Fœtal Bones, for Seventeen Years. By Dr. I. P. Klingensmith, F. S. Sc.

Placenta Prævia: Report of a Case. By Dr. L. W. Atlee.

Dublin Journal of Medical Science, October, 1900.

The Delusive Stage of Grave Abdominal Lesions. By J. S. M'Ardle, F. R. C. S. I.—The author calls attention to what he terms "the delusive stage" of grave abdominal lesions, where bright looks, clean tongue, and a fall of temperature, seem to herald convalescence. The pulse remains rapid, however, and the eye is unnaturally bright. The apparent quiet does not last long; twenty-four to forty-eight hours' rest is followed by mental aberration and an erratic temperature; then the abdomen becomes distended, all the symptoms grow worse, and the patient soon dies.

In all cases of abdominal obstruction, the author advises immediate operation, and holds that in the absence of some element which would certainly prove fatal without the operation, there should be no mortality in ordinary laparotomy. He describes his method of amputating and invaginating the appendix, and reports two cases; one of perforative appendicular inflammation due to a fæcal concretion, and the other, one of cork-screw appendix, where the appendix was coiled up in Douglas' pouch adhering to the posterior aspect of the ovary.

Remarks on Senile Dementia. By C. Norman, F. R. C. P. I.—The dementia of old age is more common among old women than among old men, and the intellectual classes suffer less than those who do not use their brains. The influence of alcohol in producing premature senility in all the organs is well known; it is not least marked in the brain. Usually early cases of senile dementia have often a history of alcoholism. Its onset is usually gradual, yet in some cases it may be apparently rapid, the disease not having been previously noticed. Some mild intercurrent affection may light up the smouldering fires. The author reports five such cases due to apparently slight moral or physical causes. Of late years, influenza has been frequently assigned as a cause of senile dementia. Marked general excitability often ushers in the disease and the senile dement is fussily active for a long time. The patients are often more vigorous muscularly than most men of their age, and so require careful watching. There is a special tendency to nocturnal excitement and insomnia. Hypochondriacal delusion is frequent; it may be grotesque or melancholic in type. Notions of suspicion are prominent in many cases, forming a clinical picture intermediate between the pantophobia of the melancholic and the persecutory ideas of the paranoiac. A special form is the dread of being robbed. Organized delusion of persecution is very rare, however. The tendency to fabulize is sometimes present. The most usual characteristic feature of the affection is the peculiar form of amnesia which exists therein. Memory for recent events is impaired to obliteration; memory for distant events being relatively intact or even overactive. Aphasic and paraphasic states are commoner than has been thought, names and parts of speech being often completely lost. A tendency to disorientation is always present in this disease: the patients will deny that they are in their own house, etc. A common symptom in early cases is a tendency to sexual excitement, showing itself by exposure, by indecent liberties with children, etc. Such sexual proclivities are due to those residual feelings originating in the sexual nerves, which most likely never become absolutely extinct.

The Prevention and Treatment of Post-partum Hæmorrhage. By Dr. J. W. Byers. (See abstract from the *Lancet* of September 15, 1900, in this *Journal* for October 6, 1900.)

Miscellaneous.

The Effects of Different Anæsthetics on the Kidneys. —In our issues for November 18 and 25 and December 2, 1899, Dr. Robert Coleman Kemp published some experimental researches on this subject made by Dr. W. H. Thomson and himself. The conclusions from these researches were so at variance with generally received opinion as to stimulate further investigation at the hands of other observers. Accordingly, Dr. Dudley Buxton, anæsthetist to the University College Hospital, London, and Dr. A. G. Levy, have just published in the *British Medical Journal* for September 22d the results of their investigations, which were conducted in the Laboratory of Pathological Chemistry in University College, London. The authors say that the experiments of Dr. Kemp and Dr. W. H. Thomson convinced these observers that "sulphuric ether as an anæsthetic produced a specific effect of its own upon the renal circulation," an effect which they believed was independent of any "corresponding disturbance of the general circulation, as indicated by the blood pressure in the carotids, a condition of complete suppression of the urine frequently occurring." The results of these observers were so serious as to demand the most careful scrutiny, and the present research was initiated from that standpoint. If such conclusions were to be accepted it was felt that a very stringent delimitation of the use of ether would become necessary. The conclusions of Dr. Kemp and Dr. Thomson were as follows, and were arrived at by extremely careful and well-thought-out experiments:

Under ether: Carotid tracings (1) rise of blood pressure from commencement; (2) further slight rise on pushing the ether; (3) moderate fall on withdrawal of ether.

Kidney tracings (1) under moderate anæsthesia slight rise of oncometric curve (expansion of kidney) corresponding to rise of blood pressure; (2) on pushing ether a great fall of oncometric curve (shrinkage of kidney) to or below the recording limit of the tambour. If ether is suspended the kidney recovers in from thirty seconds to two minutes.

This effect was, according to these observers, "specific."

They further affirmed that this "specific" effect was revealed when mixtures containing ether were employed, and this fact they believed precluded the possibility of the effect being only the result of the increased central arterial tension brought about by ether.

On kidney secretion they found that ether produced the following results: The drops flowing from a cannula in the ureter are diminished in frequency and this diminution is progressive and ends in suppression as the ether is pushed. "Albumin appeared early even under moderate anæsthesia. This increased under deep narcosis, until just before the suppression it amounted to sixty per cent. in volume." These experiments were performed on ten dogs.

With regard to chloroform an evanescent rise of blood pressure was followed by a fall. The oncometric curve followed the blood-pressure curve, and although revealing a fall this was never excessive. The secretion of urine they found to remain copious until the blood pressure fell very low, and it flowed almost to the time of death. Albumin, usually absent, appeared in small quantity however after prolonged narcosis when the blood pressure had become dangerously depressed.

With regard to the A. C. E. (Harley) mixture, say Dr. Buxton and Dr. Levy, the methods employed by Dr. Kemp and Dr. Thomson appeared to indicate that the results arrived at in the one case corresponded to those regarded by Dr. Kemp and Dr. Thomson as an "ether effect," and in another as those incident to the employment of chloroform.

Dr. Buxton's and Dr. Levy's experiments were as follows:

Dogs were employed in all instances. The variations of volume of the kidney were measured by an oncometer which was an adaptation of Schäfer's plethysmograph. This was attached to a Marey's recording tambour marking upon smoked paper revolving on a Hürtle kymographion. The blood pressure was registered through the medium of a cannula inserted into the femoral artery. The flow of urine was recorded by inserting a cannula in the ureter of the unenclosed kidney, and signalling each excretory effort. The ureter was exposed and cannularized retroperitoneally in the iliac region.

Method of Administering the Anæsthetic.—To allow of regular anæsthetization the animal was in every case tracheotomized. The anæsthetic was given by one of two methods: (1) by aspiration of air through the anæsthetic by means of a modification of the ordinary "wash bottle" attached to the tracheotomy tube. This bottle was in some instances surrounded by hot water to produce more rapid vaporization. In every case care was taken to allow free expiration by the use of a double tube which could be closed if required during inspiration. (2) By aspiration through a tube connected with a funnel held over cotton wool more or less soaked in the anæsthetic according as a deep or light narcosis was required. Care was taken to maintain a light anæsthesia during the preparation of the animal, so as to avoid vitiation of the subsequent experiments by an accumulation of a large amount of the anæsthetic in the blood.

Results of Experiments.—The authors say that as the result of their series of twelve experiments they failed to substantiate the occurrence of the "specific ether effect" with the same constancy as was attributed to it by Kemp and Thomson. In five of the authors' animals it was obtained, but in six they entirely failed to evoke it, although the ether was gradually pushed until its toxic effects on blood pressure and subsequently respiration were evident. On each animal several trials were made, but with this result only. In one further experiment a doubtful, probably mixed, result was obtained.

A fall of blood pressure resulting from an excessive dose of ether was, they say, of course, accompanied by a contraction of the kidney from lessened blood supply, accompanied naturally by a diminished flow of urine, which became restored to the normal *pari passu* with the expansion of the kidney as the blood pressure rose on ceasing the administration of the anæsthetic. This simple blood-pressure effect was obviously quite distinct from the true ether effect, and was quite comparable to the blood-pressure effect observed under chloroform administration.

The specific ether effect they only obtained after prolonged administration or repeated large doses of the ether, a point which they consider to be of extreme importance. The specific effect when obtained might, as Kemp and Thomson maintained, be entirely independent of any decrease of blood pressure, but they certainly, in the majority of instances, noted some degree of fall, not sufficient perhaps to be regarded as a factor in the production of the ether effect, but important as denoting the degree to which etherization had been pushed, the commencement in fact of the toxic stage of anæsthesia. Another observation which they frequently made was that after producing a specific kidney effect they could not prolong the ether inhalation without soon causing either a failure of respiration or a pronounced fall of blood pressure, this instancing how the anæsthetization had been carried to a dangerous degree. The kidney volume resumed its normal after specific contraction, gradually and much more slowly than in the case of a simple blood-pressure effect.

The authors' observations upon the flow of urine during the progress of a specific kidney effect in the main agreed with those of Kemp and Thomson. They found on the occasion of an ether effect the interval between successive drops of urine to reach as much as two minutes, when the normal interval was twelve seconds. They considered, however, that the plan of signalling actual drops of urine was not a sufficiently accurate one and it could not be implied that no excretion took place during the above intervals, for each actual drop was the total of a number of small excretory efforts. The normal rate of secretion was resumed very gradually as the circulatory disturbance disappeared, but they had to take exception to the expression "complete suppression," for this they never witnessed, the secretion, though slowed, never entirely stopped and was always found to be fairly active after an appropriate interval, during which the anæsthetic was withdrawn. The employment of this term they thought misleading in that it implied a complete suppression lasting for a long period, a condition which they could not think Dr. Kemp and Dr. Thomson intended to imply. The authors never found a condition of anuria approaching in persistency that which might be readily produced by accidental traction on the ureter when inserting the cannula, and which, though generally very temporary in duration, might in pronounced cases last for an hour or more.

Conclusions.—The study of the authors' tracings and a consideration of the details of their experiments led them to regard the specific ether effect not as a *necessary* or *initial* result of ether narcosis, such as Dr. Kemp and Dr. Thomson appeared to regard it, but as the occasional result of the prolonged action of ether when circulating in the blood in such excessive quantity as was nearly toxic to the vital centres of the medulla. Such a dose might, in some cases, be actually toxic to the kidney in that it acted directly on the kidney arterioles, exciting their contraction, thus producing the "specific effect." After cessation of administration of the anæsthetic the urine secretion was gradually resumed. The authors were unwilling to ascribe directly to the ether such a suppression of urine as occasionally followed an operation under this anæsthetic.

Chloroform Experiments.—Their results in respect of the administration of chloroform were not enlarged upon, as they agreed in the main with those described by Dr. Kemp and Dr. Thomson.

Clinical Experiments.—Turning to the clinical side, they gave the following account of the plan adopted: The anæsthetic was given by one of them (D. W. B.) or by a student under personal supervision. The cases were taken in rotation, without any attempt being made at selection. The operations were in some cases slight, in others very severe. In the cases in which ether was given, care was taken, as was the custom in their methods, to obtain anæsthesia rapidly by the employment of a regulating inhaler, and while maintaining complete narcosis to restrict the amount of ether given. The duration of the anæsthetic varied from a few minutes to over an hour, and occasionally there was severe hæmorrhage. When possible the urine was collected for twenty-four hours before the administration of the anæsthetic. The first urine passed after the completion of the operation was collected and examined separately from the remaining urine passed in the twenty-four hours ensuing on operation. In a few instances it was possible to obtain only specimens, and in such cases no comparison as to quantity could be instituted. The authors regretted that in the present series of cases catheter specimens were not obtainable. The patients were, however, required to urinate before entering the anæsthetizing room, and the first specimens passed, after conclusion of the operation, were usually small in amount.

Methods of Examination.—The specific gravity of the three sets of specimens having been taken, the quantities were increased, reactions noted, and deposits examined microscopically. Albumin was tested for in each case by (1) the boiling test, and (2) the nitric acid ring test, and when confirmatory evidence was required, by (3) trichloracetic acid, and (4) picric acid tests When albumin was present in sufficient amount, quantitative estimations were made by Esbach's method. When only traces of albumin existed, pus cells were always looked for microscopically.

Results of Thirty-seven Cases of Etherization.—Taking into consideration the total quantities of urine passed in twenty-four hours antecedent to, and after, the operation, respectively, the authors found that there was, in the majority of instances, a considerable diminution in amount in the latter case.

A second table containing their own thirty-seven cases summarized and compared with those of Kemp and Thomson, showed as follows: 1. No deleterious effect of etherization in respect of albumin—Kemp and Thomson, 34.7 per cent.; Buxton and Levy, 94.6 per cent. 2. Deleterious effect apparent—Kemp and Thomson, 65.9 per cent.; Buxton and Levy, 5.4 per cent.

The observation of seven cases in which chloroform was administered brought into prominence the occurrence of an almost constantly increased density of the urine passed after the anæsthetization.

With regard to the influence exercised by ether upon the appearance of albumin in the urine, in thirty-two cases there was no albumin before the administration of ether, and none was found subsequently to the anæsthetization; in one case only there was an absence of albumin before and a trace found afterward; in one other case a trace was present before, which decreased subsequently; while in two cases there was a trace before which disappeared entirely after; in one case a trace of albumin was found before etherization, and a slight increase occurred afterward.

Conclusions.—Taking the above clinical observations into account, the authors think the following points deserve attention:

Referring to the ether cases, the quantity of urine passed after the operation was, in the majority of cases, reduced in amount. Probably the abstinence from liquid both immediately before and after the operation, as well as the vomiting which in some cases occurred, and the purging incident to the routine preparation of the patient before operation, may have had considerable influence in bringing about this reduction. Other but less usual causes acting in the same direction are the diminished blood pressure due to surgical shock, especially in the case of abdominal operations, and also the reflex inhibitory action on the kidneys in certain operations such as those for the relief of hæmorrhoids. They think that in certain cases direct manipulation of kidney and ureter has to be considered in this connection.

It cannot be too strongly insisted upon that this reduction is in the urinary water only. The increase in the specific gravity of the urine after operation, which has been already pointed out as occurring constantly, sufficiently demonstrates that the functional activity of the kidneys concerned with the excretion of the solid constituents of the urine is not generally seriously affected by the ether.

If, as might be believed from the experiments of Dr. Kemp and Dr. Thomson, the kidneys are materially affected by ether even in light narcosis, and that albuminuria early gives evidence of this renal derangement, it is most surprising that most, if not all, patients who inhale ether should not show the results of the ether effect on their kidneys, and our clinical tables palpably fail to indicate that such is the case.

The fact is, there is little evidence tending to show that ether exerts directly any deleterious influence on the kidney parenchyma. The albumin found in the urine of the dogs which had undergone experiments they believe is not to be explained in this way, but by the indirect action of the anæsthetic, in that it produces, when pushed to an excessive dose, an ischæmia of the kidney, that is, the specific ether effect.

Nussbaum's experiment of temporary ligature of the renal artery of the frog has demonstrated how deprivation of arterial blood damages the renal epithelium, and causes the appearance of albumin in the urine. A similar deprivation of arterial blood by reason of intense and prolonged contraction of the renal arterioles, such as we find occurring in the specific renal effect of ether, would naturally lead, one would expect, to the appearance of albumin in the excreted urine.

A less intense and less prolonged deficiency of blood supply produced by a temporary fall of blood pressure, such as follows the administration of chloroform or of a toxic dose of ether, should naturally be followed by the occurrence of albumin in smaller quantities.

The authors do not consider that any specific ether effect and consequent kidney ischæmia and albuminuria should ever occur in the course of ether anæsthesia for operative purposes, provided the administration is performed with reasonable care. They think, however, that in the case of ether, owing to its comparative safety as far as the vital centres are concerned, there is a danger lest, owing to a false sense of security, excessive quantities are administered. Where quantities of ether are given—where the patient is "soaked" with ether—we meet with "ether effects" on the kidneys. Such effects are probably transient in most cases, and produce no acute or lasting mischief; but even these are not necessary, and are, in fact, the result of the abuse rather than the use of ether.

Book Notices.

A Manual of Surgical Treatment. By W. Watson Cheyne, M. B., F. R. C. S., F. R. S., Professor of Surgery in King's College, London, etc.; and F. F. Burghard, M. D. and M. S. (Lond.), F. R. C. S., Teacher of Practical Surgery in King's College, London, etc. In Seven Volumes. Volume III. The Treatment of the Surgical Affections of the Bones. Amputation. Philadelphia and New York: Lea Brothers & Co., 1900. Pp. xvi-305.

For the purpose of convenience, the work is divided into three sections. The first is devoted to fractures, and in its opening chapter there is a description of the various methods for the treatment of fractures. It further includes a consideration of their ætiology, pathology, and repair, and concludes with a lucid and succinct description of the best mechanical measures necessary for the maintenance of reduction. It is noteworthy that the authors have purposely omitted many well-known methods of treatment, and have continued the principles adopted in their former volumes, of giving space only to such as have been found most useful in their hands.

Chapters ii to viii, inclusive, are devoted to fractures of special bones. The subjects of fractures of the skull, the spine, the jaw, the hyoid bone, and the ribs, however, have been left for a later volume, the exigencies of space not admitting of their consideration under the present cover. In fractures of the clavicle the authors offer us three methods in the treatment of the affection, namely, recumbency, the handkerchief method, and Sayre's method. It is to the handkerchief method that the authors give special preference, yet this procedure is identical in principle with the Sayre method. It is to be noted that the latter receives a much fuller description, and this might lead the reader to suppose it to be a more favored one with the writers. In fractures of the lower end of the radius the use of a general anæsthetic is advised, and this is to be commended, for a perfect reduction is of the greatest importance, and it can be more surely attained when the patient is thoroughly narcotized. As the authors state, "reduction is the first point of importance; reduction often calls for the exercise of considerable force, and it is therefore advisable to place the patient under an anæsthetic, when it is easy to reduce the fracture by simple extension." Of equal interest with the skillful handling of the subject of Colles's fractures is the chapter on the fracture of the patella; the authors here express themselves strongly in favor of the open method of treatment, and further advise an immediate operation as being productive of the best results, for, as they state, "we have been in the habit of operating as soon as possible after the accident, and we have seen no reason whatever to regret doing so. There is the advantage in an immediate operation that the sooner it is carried out the sooner can movements be begun and the less chance is there of adhesions forming. We are therefore strongly of the opinion that the operation should be performed as soon after the injury as possible." It certainly seems the most rational view to take, and the practice merits a more general adoption.

In Section 2 we find a few chapters on the diseases of the bones, which include acute and chronic inflammation, necrosis, tuberculosis, syphilitic and rheumatic affections, rickets, scurvy-rickets, osteomalacia, osteitis deformans, leontiasis ossium, acromegaly, actinomycosis, and, lastly, tumors of the bones. What is said of them is most interesting and instructive. In natural sequence to diseases of the bone will be found the concluding section of the treatise—on amputation. Here the authors have taken the opportunity to call the reader's attention to the position of amputation at the present day and to comment on the infrequency of its performance, which is the direct result of improved surgical methods.

It is needless to say that the same general excellence in bookbinding and printing which characterized the earlier volumes is fully maintained in this, and we accord to Volume III the same welcome that we offered to its predecessors.

The Criminal: his Personnel and Environment. A Scientific Study. By August Drähms, Resident Chaplain, State Prison, San Quentin Prison, San Quentin, California. With an Introduction by Cesare Lombroso, Professor of Psychiatry, University of Torino, Italy. New York and London: The Macmillan Company, 1900. Pp. xiv-14 to 402. [Price, $2.]

This volume represents the results of several years' observation of criminals, carried on by an enthusiastic worker and a careful student. The author, a chaplain rather than a physician, has concerned himself with the moral and social aspects of the question, rather than with head measurements or deviations from normal physical structure. And, indeed, despite the broad generalizations of Lombroso, it is from this side that the study of criminal anthropology is most promising of reward. The present work, from this point of view, is a contribution of distinct value, and will be of service to everybody interested in the study of crime and the means of its prevention.

Lessons on the Anatomy, Physiology, and Hygiene of Infancy and Childhood for Junior Students. Consisting of Extracts from Lectures given at Rush Medical College. With 71 Original Illustrations. By Alfred C. Cotton, A. M., M. D. Chicago: Chicago Medical Book Company, 1900. Pp. 174. [Price, $1.50.]

The object of this little book is, as indicated by the title, to epitomize the elements of the subject of pædiatrics. As stated by the author in his preface, the book is intended for junior students, but can be consulted by the busy practitioner as well, with advantage.

In regular sequence the subjects of infant anatomy, normal growth, physiology and hygiene, nourishment, milk analysis, weaning, and substitute feeding are taken up and discussed in a refreshing manner. The material of the book is chiefly drawn from the lectures of the author, prepared for the instruction of his classes at the Rush Medical College, and constitutes the scheme of a more extended work which is to appear later.

BOOKS, ETC., RECEIVED.

The American Illustrated Medical Dictionary. A new and complete Dictionary of the Terms used in Medicine, Surgery, Dentistry, Pharmacy, Chemistry, and kindred branches, with their Pronunciation, Derivation and Definition, including much Collateral Information of an encyclopædic character, with numerous Illustrations and twenty-four colored Plates. By W. A. Newman Dorland, A. M., M. D., Assistant Obstetrician to the University of Pennsylvania, etc. Philadelphia and London: W. B. Saunders & Co., 1900.

A Text-book of Pathology. By Alfred Stengel, M. D., Professor of Clinical Medicine in the University of Pennsylvania, etc., with 372 Illustrations. Third Edition, Revised. Philadelphia and London: W. B. Saunders & Company, 1900.

Modern Medicine. By Julius L. Salinger, M. D., Demonstrator of Clinical Medicine, Jefferson Medical College, etc., etc., and Frederick J. Kalteyer, M. D., Assistant Demonstrator of Clinical Medicine, Jefferson Medical College, Hæmatologist to the Jefferson Medical College Hospital, etc., etc. Illustrated. Philadelphia and London: W. B. Saunders & Company, 1900.

Modern Surgery, General and Operative. By John Chalmers DaCosta, M. D., Professor of the Principles of Surgery and of Clinical Surgery, Jefferson Medical College, Philadelphia, etc., etc., with Four Hundred and Ninety-three Illustrations. Third Edition, Revised and Enlarged. Philadelphia and London: W. B. Saunders & Company, 1900.

A Text-book of the Practice of Medicine. By James M. Anders, M. D., Ph. D., LL. D., Professor of the Practice of Medicine and Clinical Medicine in the Medico-Chirurgical College, Philadelphia, etc., etc. Illustrated. Fourth Edition, thoroughly Revised. Philadelphia and London: W. B. Saunders & Company, 1900.

Transactions of the American Ophthalmological Society, Thirty-sixth Annual Meeting, Washington, D. C., 1900. Hartford: Published by the Society.

Essentials of Histology. By Louis Leroy, B. S., M. D., Professor of Histology and Pathology in Vanderbilt University, Medical and Dental Department; City Bacteriologist to Nashville, Tenn., etc., etc. Arranged with Questions following each Chapter, with Seventy-two Illustrations. Philadelphia: W. B. Saunders & Company; London: 161 Strand, W. C., 1900.

Les Maladies qu'on soigne à. Berck. Abscès froids adénites, ostéites, tumeurs blanches, coxalgie, scoliose, mal de Pott, scoliose, luxation congenitale, etc., etc. Par F. Calot Masson et Cie, Paris, 1900.

Saunders' Pocket Medical Formulary, with an Appendix. By William M. Powell, M. D. Sixth Edition, thoroughly Revised. Philadelphia: W. B. Saunders & Company, 1900.

Letters to the Editor.

THE FLUCTUATING GALVANIC CURRENT.

256 West Fifty-seventh Street, *October 25, 1900.*

To the Editor of the New York Medical Journal:

Sir: In May last I sent the attached communication and the *Revue internationale d'électrothérapie*, which you will perceive is a declamation of priority in respect to the fluctuating, or undulating, galvanic current. As the journal in question has not seen fit to publish it, I beg the hospitality of your *Journal*, inasmuch as the first account of this current appeared therein nearly ten years ago.

H. G. Piffard, M. D.

The Fluctuating Galvanic Current. By Henry G. Piffard, M. D., LL. D., Professor (Emeritus) of Dermatology, New York University.—In the *Revue internationale d'électrothérapie* (July, August, 1899, p. 318) there is an article dealing with *"les courants ondulaires,"* meaning thereby direct currents passing always in the same direction, but with varying intensity, resembling in this respect the well-known sinusoidal current, but differing from it in the fact that the direction of the current does not vary, that is, it is not an alternating current. It is stated that the first applications of this current date from 1896, and the chief credit for this discovery and its utilization is accredited to M. d'Arsonval and M. Apostoli. This is an error, as I had for many years used this current in my practice and published a reference to it in the *New York Medical Journal* of July 11, 1891, in connection with an article entitled Further Improvements in the Adaptation of the Edison Current to General Office Use. The article just mentioned described the method I devised for employing the ordinary direct illuminating current of 110 volts for clinical electrolytic, and cautery work (*galvano-caustie chimique et thermique*). The devices then shown were the first successful means of utilizing the street current, and, so far as I have observed, have not been improved on since. The apparatus for electrolytic applications consists of a small table to which the special appliances were attached, giving me a main circuit and several shunt circuits. The main circuit included an ordinary incandescent lamp of 16 candle power and having a constant resistance of 240 ohms. In addition, there was a water rheostat by means of which the intensity of the current could be reduced when necessary to less than one milliampère. This disposition gave the ordinary direct galvanic current, and could as well be connected with a battery of cells as with the current from the Edison dynamo. To this main circuit I attached an ordinary telegraphic sounder in shunt. The sounder had a resistance of 20 ohms. If, now, a patient was placed in the main circuit he would receive the direct current as modified by the resistance of the lamp and water rheostat. If at any moment the key of the sounder was depressed so as to close the shunt circuit, there would be two currents, one passing through the patient and back to the source, and the other through the sounder. As the resistance of the sounder was but 20 ohms, while that of the human body was 2,000 or more, the intensity of the current would be a hundred times as great in the shunt as in the main circuit, and a violent muscular contraction would occur, although there was no absolute break in the circuit or any reverse current set up. When the telegraph key is released and the shunt circuit is broken, the full intensity of the current again passes through the patient. Some of my neurological friends have found this device useful in testing muscle and nerve degenerations. We can readily understand that, if the key is rapidly depressed and released, a fluctuating or undulating current would result, the intensity varying, but the direction being constant. In addition to the apparatus described, I attached an ordinary faradaic coil, arranging it in shunt to the main circuit, with, of course, a switch so that it could be brought into or left out of the circuit at will. If I desired to use the faradaic circuit, the patient was placed in connection with ordinary terminals of the coil, and the primary or induced current could be used the same as if the coil had been actuated by one or more battery cells.

On the other hand, if the patient was disposed between the terminals of the main galvanic circuit and the coil switched in, the patient would immediately experience the *fluctuating,* or *undulating,* current. When the circuit through the primary coil was closed, the resistance of the coil being very slight, the greater part of the current would pass through it, and a comparatively weak current through the patient, but the moment the coil current was broken, the full intensity of the main circuit would traverse the patient. In this manner one obtained a fluctuating, or undulating, current, always, however, in one direction and not alternating like the sinusoidal.

In 1892 Dr. J. H. Kellogg, of Battle Creek, Mich., arranged an installation similar to my own, and under date of October 17, 1892, wrote me as follows: "I promised to send you a curve of your 'fluctuating' current. I herewith enclose a bit from a tracing which I made a few days ago. The curve is a very interesting one and shows very clearly the fluctuating character of the current. The movement is all *on one side* and not alternating, as in the magneto current. About the first thing I did when I got home was to make an application of the current and note its effects. I have been more than pleased with the results," etc.

I have used this current now for more than ten years in dermatological practice, and find it far superior to either the faradaic or ordinary galvanic current in the reduction of cutaneous infiltrations and the dissipation of chronic inflammatory deposits. I am not surprised, therefore, that M. Apostoli should have found it useful in gynæcological practice; and my only regret is that electrotherapeutists have not given it a more extended trial in the past.

Miscellany.

Dr. J. Leonard Corning's Original Article on Spinal Anæsthesia and Local Medication of the Cord.—At the request of many of our readers, we here reproduce Dr. Corning's original article, which appeared in our issue for October 31, 1885:

"It is my desire on this occasion to draw attention to a procedure in therapy which, so far as I am aware, possesses the merit of novelty. The arguments which I shall advance in its favor are twofold in kind: First, I shall cite certain physiological facts with which the procedure in question stands in immediate relationship; and, secondly, I shall endeavor to record conscientiously the actual phenomena evoked by the use of the method itself.

"To take up the argument in this order, I would remark, then, that, when a certain quantity of a remedy, say strychnine, is thrown under the skin of a frog, certain phenomena make their appearance which show indubitably that the functions of the spinal cord are profoundly affected. The animal is thrown into violent convulsions and assumes a rigid attitude, and we have presented the picture of an artificial tetanus. This is a spectacle of the physiological laboratory, and one with which we are familiar.

"If, now, we remove the posterior arches of three or four of the vertebræ of the animal, and, seizing the membranous coverings of the cord, insert the end of a hypodermic needle so that we are able to inject a small quantity of a solution of strychnine, we shall find, first, that not only are the convulsive phenomena immediately produced, but, secondly, that a smaller quantity of the fluid is required to evoke them than when the drug is placed under the skin at a point remote from the spinal cord.

"It was formerly supposed that this phenomenon was due to the direct contact of the strychnine with the nervous elements of the cord, but Harley[*] has shown that the poison can act only through the intermediation of the blood-vessels, since, when the latter are separated from the cord, the solution remains entirely inert, the convulsions failing to appear.

"From the foregoing considerations, it is clear that, in order to obtain the most immediate, direct, and powerful effects upon the cord with a minimum quantity of a medicinal substance, it is by no means necessary to bring the substance into direct contact with the cord; it is not necessary to inject the same beneath the membranes, as in the case of the frog, since the effects are entirely due to the absorption of the fluid by the minute vessels. On the other hand, in order to obtain these local effects, it is first necessary to inject the solution in the vicinity of the cord, and, secondly, to select such a spot as will insure the most direct possible entry of the fluid into the circulation about the cord. Is there in man a locality which fulfills these conditions? Instead of answering this question at once, I will rather detail some recent experiments performed by myself, by means of which, I trust, all doubts on the subject will be effectually set at rest.

"Protocol of Experiments.—Some time since I began a series of experiments with a view to determining whether the local medication (anæsthetization) of the spinal cord was within the range of practical achievement. The drug made use of was hydrochlorate of cocaine. As the introduction of a hypodermic needle beneath the membranes of the medulla spinalis is not practicable without removal of the arches of the vertebræ (on account of the danger of wounding the cord), I decided to inject the anæsthetic between the spinous processes of the lower dorsal vertebræ. I was led to resort to this expedient from a knowledge of the fact that in the human subject numerous small veins (venæ spinosæ) run down between the spinous processes of the vertebræ, and, entering the spinal canal, join the more considerable vessels of the plexus spinalis internus. From these theoretical considerations I reasoned that it was highly probable that, if the anæsthetic was placed between the spinous processes of the vertebræ, it (the anæsthetic) would be rapidly absorbed by the minute ramifications of the veins referred to, and, being transported by the blood to the substance of the cord, would give rise to anæsthesia of the sensory and perhaps also of the motor tracts of the same. To be more explicit, I hoped to produce artificially a temporary condition of things analogous in its physiological consequences to the effects observed in transverse myelitis or after total section of the cord. I therefore anticipated a more or less local action of the drug upon the cord. My hopes in this regard were based somewhat upon the well-known lethargy of the circulation in the cord, particularly at its lower portion—a condition of things highly promotive of the action of the drug.

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[*] *A Hand-book of Therapeutics,* by Sydney Ringer, M. D., New York, 1870, p. 387.

"*Experiment I.*—This was performed on a young dog. At 10 o'clock, A. M., I injected twenty minims of a two-per-cent. solution of the hydrochlorate of cocaine into the space situated between the spinous processes of two of the inferior dorsal vertebræ. Five minutes after the injection there were evidences of marked inco-ordination in the posterior extremities; the dog threw his hind legs about aimlessly, holding them far apart, much after the manner of some ataxic patients. A few minutes later there was marked evidence of weakness in the hind legs, but there were no signs whatever of feebleness in the anterior extremities. I now tested the condition of sensibility by means of a powerful faradaic battery, one of the conducting cords of which was attached to a fine wire brush. When the wire brush was applied to the hind legs, there was no reflex action whatever on the part of the latter, at least such was the case except when the most powerful currents were employed. But, on the other hand, when I applied the wire brush to either of the anterior extremities, the limb was drawn away violently, and the animal set up the most dismal howls. Similar effects were observed on pinching and pricking the limbs.

"These phenomena persisted for a considerable length of time, and traces of inco-ordination were observed two hours after the injection had been made. After the lapse of about four hours, however, the dog seemed to have recovered his usual health, and walked about without difficulty.

"During the duration of the experiment nothing of an abnormal nature was observed in the forelegs. I infer from this fact that the action of the anæsthetic was practically local, being confined, for the most part, to that portion of the cord situated immediately beneath the point of injection. It is conceivable, however, that, had the quantity of anæsthetic fluid injected been greater, the anterior limbs might also have been affected. An *absolute* localization of the anæsthesia is indeed hardly within the range of possibilities, on account of the numerous blood-vessels. It is true, nevertheless, as we have seen, that the local action of the drug is greatly favored, at least so far as the inferior segment of the cord is concerned, by reason of the lethargy of the circulation at this point.

"*Experiment II.*—This was performed on a man who had long been a sufferer from spinal weakness and seminal incontinence, and who for many years had been addicted to masturbation and other forms of sexual abuse. Without entering into the details of the case, which are devoid of any special interest, I will proceed at once to give an account of the experimental observation which constitutes its only claim to attention.

"As in the case of the dog previously referred to, I was bent upon abolishing reflex action and annulling sensory conduction in the cord. To this end I injected thirty minims of a three-per-cent. solution of the hydrochlorate of cocaine into the space situated between the spinous processes of the eleventh and twelfth dorsal vertebræ. As there was no numbness, tingling, or other evidence of modified sensibility after the lapse of six or eight minutes, I again injected thirty minims of the solution at the same spot and in the same manner. About ten minutes later the patient complained that his legs 'felt sleepy'; and, on making a careful examination with the wire brush, I found that sensibility was greatly impaired. Currents which caused lively sensations of pain and reflex contractions in the upper extremities were disregarded and barely perceived in the lower limbs. The same was true of the prick of a needle. Fifteen or twenty minutes later the anæsthesia had increased in intensity, and, although there were some evidences of diffusion on the part of the anæsthetic, the impairment of sensibility was principally limited to the lower extremities, the lumbar regions, the penis, and the scrotum. About this time I applied the wire brush to the soles of the feet and to the toes, using about the maximum strength of a powerful faradaic battery, without causing either pain or reflex contractions, while a current of half the strength evoked intense pain and reflex contractions in the upper limbs. Some time later I fancied that I could discern some obtuseness of sensibility in the upper limbs; but on this point I feel compelled to speak with reserve. When the patient closed his eyes he experienced some dizziness while standing, but there was no inco-ordination or motor impairment discernible in the gait. The power of distinguishing differences in pressure seemed also to be preserved; but I regret to say that I did not test the sensibility to variations of temperature. The passage of a sound, though usually accompanied by considerable pain, remained almost unperceived, and a urethral electrode caused no inconvenience, even when strong currents were used. The sensibility of the scrotum and glans penis was also impaired to a marked degree, as proved by repeated tests with the electric brush. The pupils were but slightly dilated.

"When the patient left my office, an hour or more after the injections, sensibility was still impaired to a marked degree, but otherwise he seemed none the worse for his experience. The patellar tendon reflexes were, however, abolished.

"The therapeutic advantages afforded by such local medication would seem to be great in a large number of morbid conditions of the cord. There is, indeed, no reason why strychnine and other remedies should not be employed in this local manner as well as cocaine. In strychnine poisoning, tetanus, and hydrophobia, it should also render good service. I will merely add that on the morning succeeding the injections the patient informed me that he had experienced tingling sensations and numbness in the lower limbs until nightfall. There was also dryness of the throat and mouth, accompanied by mental exhilaration. I could hear nothing of any cardiac disturbances.

"On making an examination with the electric brush, sensibility was found to be normal in the lower limbs, scrotum, and glans penis. The passage of the sound was, as formerly, accompanied by some pain, and the urethral electrode provoked unpleasant sensations, even when mild currents were employed.

"The only constitutional symptoms complained of were headache and slight vertigo, already referred to. At no time was there nausea.

"Whether the method will ever find an application as a substitute for etherization in genito-urinary or other branches of surgery, further experience alone can show.

Be the destiny of the observation what it may, it has seemed to me, on the whole, worth recording."

Filtration as a Safeguard against Typhoid.—At a recent meeting of the Albany (N. Y.) County Medical Society Dr. Martin MacHarg reviewed the health statistics of Albany prior, and subsequent to, the installation of the filtration plant. He said that prior to the establishment of this plant the typhoid death rate in Albany was higher than in any other city in the State. During the present year typhoid fever in the city (had it not been for the filtering plan) would have been largely increased owing to the epidemic in Cohoes and Troy. This was shown unmistakably in the increased death rate from the disease in the city of Rensselaer, located directly across the river from Albany, the water supply of which was taken from the Hudson River. The average number of deaths from typhoid fever in Albany for nine years up to 1899 had been eighty-five per year. From August 1, 1899, to January 1, 1900, or when filtered water was in use, there were only seven deaths from this disease. From January 1st of the present year up to July 1st there were only nineteen deaths for the six months, or a total of twenty-four for the year, against eighty-five, the average for the preceding nine years.

Ancient Egyptian Medical Writings.—The *Medical News* for September 22d, speaking of the "Papyrus Ebers," says that for twenty-three hundred years Hippocrates of Kos has been known to the world as the "Father of Medicine." This distinction, however, has been wrested from the ancient Greek by the discovery and translation of an early Egyptian papyrus treating of the subject of medicine, with date so remote as almost to place Hippocrates within the ranks of modern physicians. English medical literature is about to be enriched by the translation of this papyrus, generally admitted by Egyptologists to be the oldest book devoted to the science of medicine extant. The work is known to scientists as the Papyrus Ebers and is supposed to have been written during the reign of Bicheres, a king of the fourth dynasty, 4688 to 4666 B. C. Thus the original document is nearly 7,000 years old and it contains the written genesis of the art of healing. Although brought to light in 1873, no complete translation of the Papyrus Ebers has been made. The document is carefully preserved in the library of the University of Leipsic, and it has remained for a Chicago man to make the first English and the only complete translation. The work was undertaken about a year ago by Dr. Carl H. von Klein, of Chicago, a well-known student of the Oriental languages and the author of a number of medical works, among them a book on the "Medicine of the Talmud." His English translation of the Papyrus Ebers, a volume of several hundred pages, will soon be ready for the press.

The Ætiology of Cancer.—The *British Medical Journal* for September 29th comments on the recently published report of a committee appointed in March, 1898, by the Birmingham and Midland counties' branch of the British Medical Association to inquire into the ætiology of cancer, as follows:

"The committee is to be congratulated on having accumulated a substantial body of evidence derived mainly from the counties of Warwickshire and Staffordshire, but also from Shropshire and Worcestershire. It began its work by inviting certain medical men in the different registration areas of these counties to make lists from the official registers of all deaths certified as due to malignant disease during the previous ten years; and, in the second place, to give a detailed account of the physical conditions both of the localities in which the disease was more prevalent and of those in which it was less so, having particular regard to the dryness and sewage contamination of the soil and to the general conditions of those houses where malignant disease had occurred with marked frequency.

"For reasons connected with the fluctuating character of the population of large towns in respect of place of residence, statistics from them have been largely set aside. Returns have, however, been freely utilized from fifty registration areas representing a population of 860,000 persons, and including more than 5,300 cases of malignant disease. The conclusions arrived at by the committee are fully set forth and explained in the report, and they are obviously the collective result of a vast amount of labor. Taking the average mortality from malignant disease throughout the country as about 0.58 per cent. in ten years, they find that there are certain more or less well-defined areas in which the mortality is markedly higher than the average, and others in which it is much lower. They consider that these differences can be in only a very small degree attributed to influences of age and sex. For example, although the female cases largely exceed the male in point of absolute numbers, yet that is manifestly due to the very large number of uterine and mammary cases. If this and other sexual factors are excluded, then the case incidence is slightly in excess in the males. They have to acknowledge that the diagnoses tabulated in the register of deaths are by no means an infallible guide to the actual number of cases, but they are held to be useful as approximations. The undeniable discrepancies depend partly on the difficulty of diagnosis in the cases of internal disease and partly on the constant difficulty in the matter of necropsies. On the one hand, they consider that some of the cases recorded as cancer are not really such, indeed, they frankly admit, for example, that carcinomata and sarcomata cannot be distinguished from the registers alone, and on the other hand, they believe that many of the cases really due to cancer are not so recorded, and as a result that the death rate from carcinomatous disease is at present under-estimated.

"One of the main results of the investigation which certainly seems to be clearly established by the evidence, is that a damp, ill-drained, water-logged soil is more frequently associated with a high cancer death-rate than is a dry, well-drained soil, and that contamination of the soil or subsoil for long periods with decomposing organic matter is a concomitant of, and probably bears a causal relation with, the specially high cancer mortality.

"Another of the more important results is that while second and third cases of cancer occur in particular houses with a somewhat greater degree of frequency than can be accounted for by mere coincidence, that, in fact, there may be 'cancer houses'; yet there is a much greater weight of evidence, almost amounting to real proof, that cancer is found with extraordinary frequency in particular groups of houses, say in the same street, that is, they maintain it to be an ascertained fact, that there are 'cancer foci.' They suggest that this remarkable grouping may itself depend on an association with contaminated soil. A minor point, bearing in the same direction, is that cancer occurs more frequently in old than in new houses, and in districts inhabited for a long time than in those recently built over. Some evidence was obtained in the course of the investigations which suggests that under certain circumstances the disease may be transmitted direct from one person to another among those who are constantly in close association."

THE NEW YORK MEDICAL JOURNAL, November 10, 1900.

Original Communications.

ENDOTHELIOMA OF BONE, WITH MANY METASTASES.

(FROM THE PATHOLOGICAL DEPARTMENT OF THE NORTHWESTERN UNIVERSITY MEDICAL SCHOOL.)

By FRANZ H. BRANDT, M. D.,

CHICAGO.

The term endothelioma, which now seems to be generally applied to tumors originating from the endothelium of both blood-vessels and lymph-vessels, including capillaries and lymph-spaces, was first used by Golgi (1) in his description of tumors, in 1874. It is on Billroth's suggestion that this term is accepted by most observers at the present time. In 1858 he reported a tumor which had a cylindrical arrangement and a hyaline structure, to which he applied the name of cylindroma. Later, through Sattler's investigation (2), he learned that these growths were a product of pathological hyperplasia of the endothelium, and that this hyaline degeneration was by no means characteristic. For that reason he preferred to call this group of tumors endotheliomata.

Whether these growths take their origin from the endothelium of blood-vessels, lymph-vessels, or lymph-spaces, is not at all decided at the present day. Observations have been made that are alleged to show the origin to be from the blood-vessels, others, again, indicating that it is from the lymph-vessels, and others that it is from the lymph-spaces; yet it is a very complex problem to decide definitely.

Before entering into a discussion of my case, I wish to express my gratitude and thanks to Professor Fütterer, my teacher, for his kindness in giving me the privilege of making this report, also for his courtesy and advice.

The case occurred in the service of Professor N. S. Davis, Jr., at the Mercy Hospital, and to him I am indebted for the history, which is as follows:

X., a janitor, aged fifty-eight, married, was admitted into Mercy Hospital on July 29, 1899.

Family History.—His father died of apoplexy; his mother of old age. One brother is living and well, while two sisters are dead; the causes of their death are unknown.

Previous History.—Has been married seventeen years; his wife survives him and is strong and healthy. No children resulted from the marriage, nor is there a history of miscarriages. Twelve to fifteen years ago he was a heavy drinker, but assures us that he has abstained from all intoxicants since. He has smoked to excess. Venereal history negative. He tells of having passed some blood in his urine about fifteen months ago; at times it would be in clots and he suffered great pain. The pain was very diffuse over the abdomen, but more particularly in the region of the urinary bladder.

On March 7th, while attending to a stove, he suddenly felt his right arm give way, losing all strength, and since then has been unable to make use of it. From this time on he suffered with pain in his arm, which sometimes became quite severe; there was also a swelling becoming noticeable at this time, which steadily increased in size.

Present Condition.—Patient is anæmic, and shows emaciation. His appetite is very poor. His tongue has a whitish and yellow coating, and deep fissures are seen parallel to the long axis.

Nothing abnormal can be detected about the eyes. He has a very peculiar facial expression and complains of having very severe pain, or weakness, as he calls it, in the region of the heart. All that can be heard about the heart is a soft systolic murmur at the apex, and in the aortic and pulmonic areas. A general arteriosclerosis is observed. The lungs are entirely negative.

The liver is palpable.

On the left, in the epigastrium, a large body can be felt, presumably the kidney.

The bowels are regular.

The patient urinates without any difficulty at present.

On looking at the right arm, a tumor presents itself, situated in the place of the tuberosities of the humerus. This growth encircles the entire bone and is expansile. Palpation reveals a systolic thrill. Later, on auscultation, a distinct bruit is heard. The tumor is rather firm in consistence, but not movable.

While the patient slept a good deal, morphine, hypodermically, had to be given, to relieve the pain.

Urinary analysis at the time of his admission showed: Specific gravity, 1.015; reaction, acid; albumin; hyaline and granular casts; flat epithelial cells. In the course of a week, under appropriate treatment, the urine showed: Specific gravity, 1.016; reaction, alkaline; albumin, a small amount; no casts.

The patient has considerable pain, and at times becomes delirious. Frequent chills are noticed.

On October 9th he died.

The post-mortem examination was held by Professor Fütterer, under circumstances which did not allow him to dictate a protocol. All important parts, however, were preserved in their natural colors and will here be described.

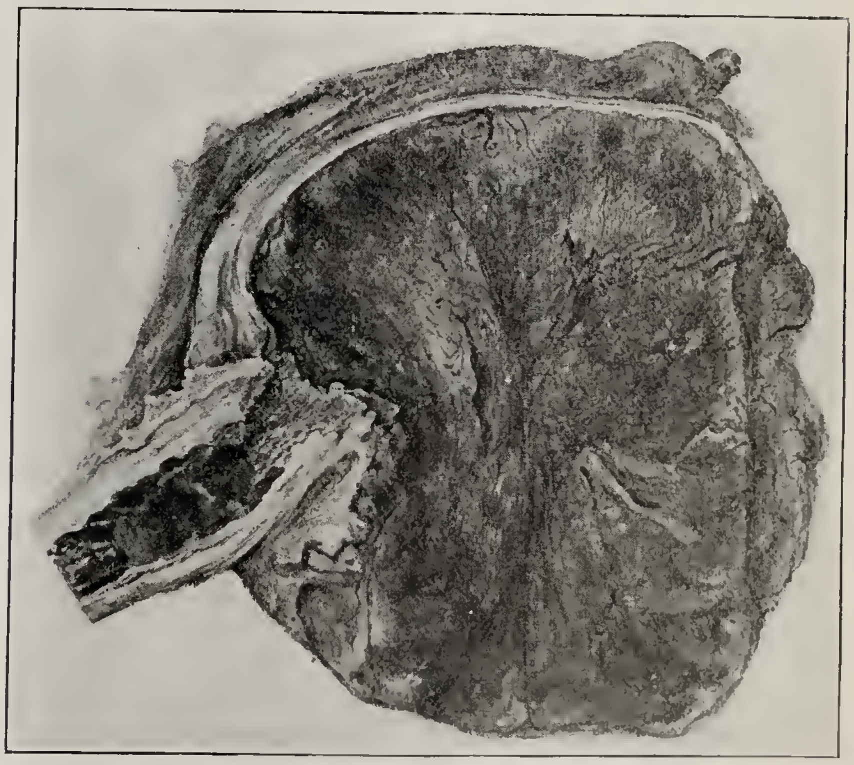

Fig. 1.—Endothelioma of the bone. Primary tumor. Head of the humerus.

Microscopical Description.—The primary growth involves the upper part of the humerus, reaching just below the tuberosities; it has the size of about 5½ inches longitudinally by 5 inches as the transverse diameter, assuming a nearly globular form. A distinct starting point can be seen, forming a sharp angle with the humerus. A cross-section shows a spherical outline. On closer inspection, the growth apparently starts from the marrow; about two inches below the enlargement the marrow merges into a chocolate brown color, indicating an increase of blood supply, interposed with what seem to be sæpta having a lighter color. Surrounding this mass we have the bone tissue, of nearly normal color, only that in proximity with the tumor it has also the brown color. The bone here is also much wider than at the normal part, ending in a rough indented edge. The tumor itself presents as a whole a brownish color, which shades off into lighter and darker areas. On the border in general the color is a dirty yellow, rather light, into which a darker chocolate-colored area of no sharp outline, but an appearance like the papillary layer of the skin, merges. A large number of fissures are seen in the centre, which radiate in all directions, the radiation being more marked peripherally. Two or three open spaces are seen in the central part, and within these spaces blood is found. Again red areas are seen here and there, indicating a particularly rich blood supply; however, the whole tumor shows a richness in blood-vessels. On palpation, we find a somewhat firm consistence, yet the structure of the tumor is rather flabby. Limiting the tumor, we see a distinct capsule not attached to the growth, which is recognized to be a continuation of the periosteum at the lower end. The vessels covering the tumor present a somewhat atrophic condition, while the skin over the growth is perfectly normal.

To sum up, we see a tumor which has caused the destruction of the head and neck of the humerus, fluctuating, with a systolic bruit, the skin, muscles, and periosteum not involved.

Metastases.—First, the pleura. Here we see a number of nodules varying in size from that of a pea to that of a walnut. These are of irregular form, more oval than round, having a creamy color, but, owing to the presence of red puncta, these present a rusty appearance. The consistence of these nodules is quite firm. The lung is very much invaded, and as a consequence it appears larger than normal. The lung was sectioned from the axillary line to the hilum. On the whole, the section shows us many metastases of all sizes, from minute spots up to those of three inches in diameter. It is well to notice that the larger masses are seen to lie more in the central part, while peripherally smaller, but many more, nodules are found. The lung tissue which is remaining gives us a variably colored picture. Here and there hyperæmic areas are seen, but more predominating are the anæmic places, only in the more lower portion of the lung very little anæmia is seen, it being of a very dark red color. Around the hilum we see increased thickness of the bronchial walls; around some of these bronchi several anthracotic glands are seen, while the larger glands of the hilum have been completely invaded by the tumor tissue. These glands are quite large and nodular, yet each mass, seemingly, is surrounded by a capsule. The color of these metastases, like those of the pleura, is entirely different from the color of the primary tumor, as already referred to; the latter is of a dark brown color and hæmorrhagic, while the metastases are of a light cream color, this being observed quite universally throughout all the metastases. At the periphery many nodules are found, decreasing in size as they recede from the centre. The pleura in several places is greatly increased in thickness. This is particularly true at the apex, where a triangular area, apex down, about 2½ inches long, is seen, consisting of what appears to be white fibrous tissue. The next place where metastases occurred was in the ribs; one was invaded so much as to cause a spontaneous fracture. A spindle-shaped enlargement, mostly bulging toward the pleural cavity, is seen here, the size of which is 1½ inch by 3 inches. A cross-section of this rib gives us the oval outline in place of the bone. This tumor mass is observed to be of the same creamy color as the other metastases. Limiting this tumor tissue, we see a covering, very thin, and from as much as can be made out it is a continuation of the periosteum.

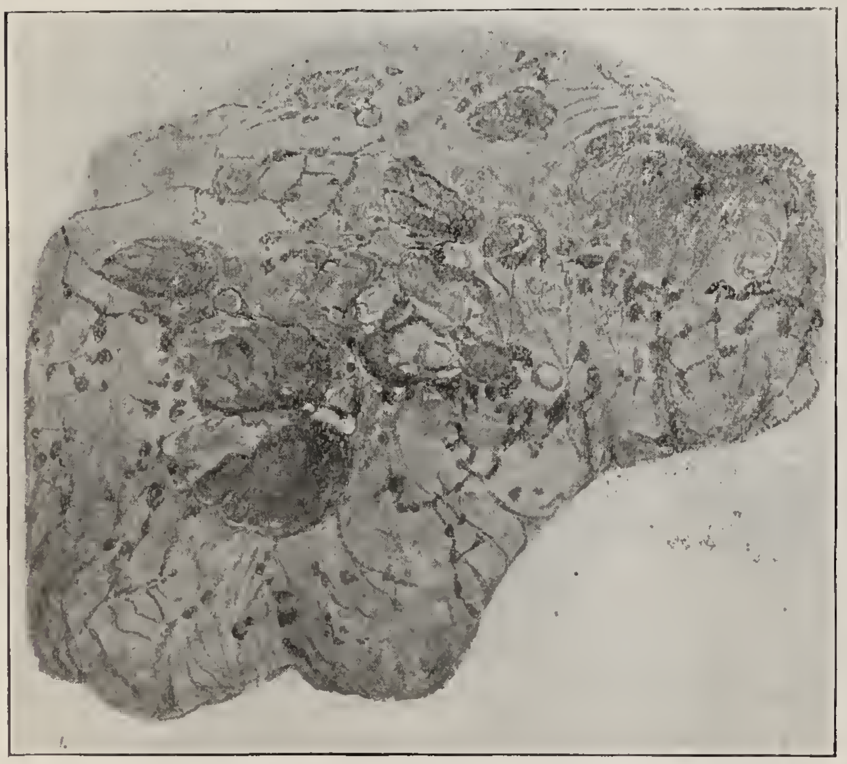
FIG. 2.—Endothelioma of the bone. Metastasis in the pleura.

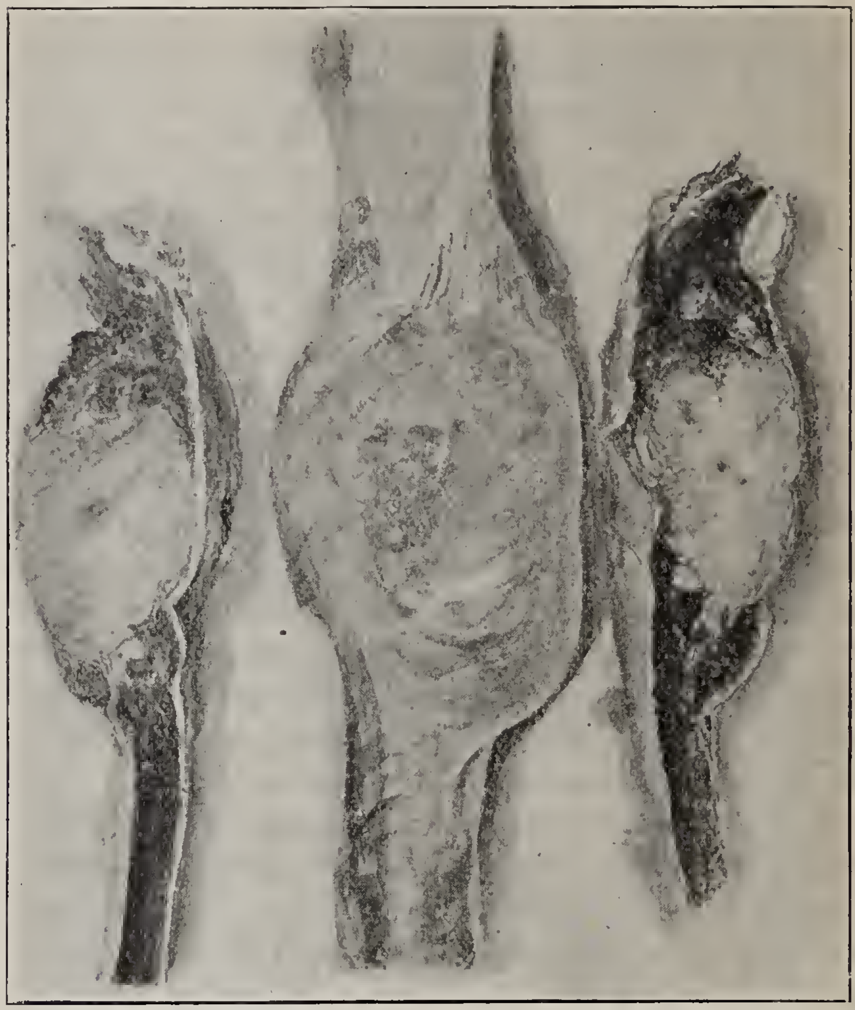
FIG. 4.—Endothelioma of the bone. Metastasis in the ribs.

The diaphragm shows a nodule, the size of a big hazelnut, which is pedunculated. The color of this nodule is

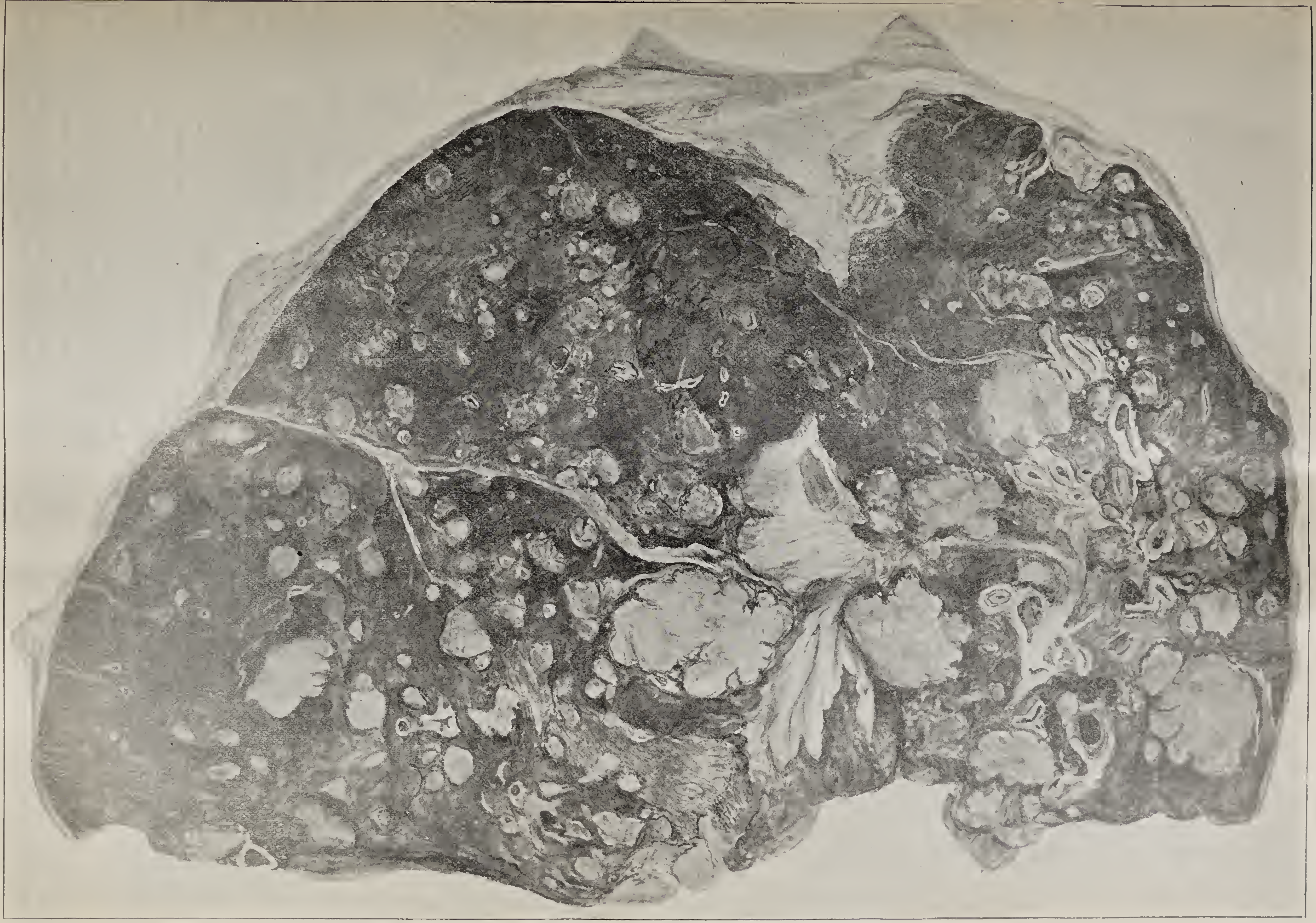

Fig. 3.—Endothelioma of the bone. Metastasis in the lung.

a little more hæmorrhagic, but it seems to be confined to the covering.

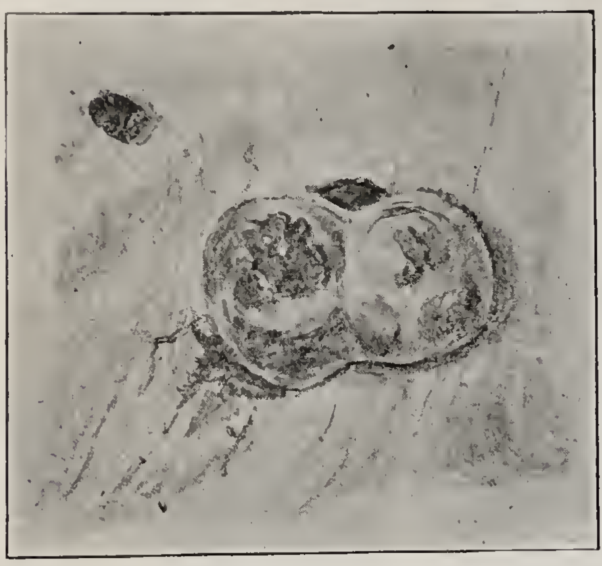

FIG. 5.—Endothelioma of the bone. Metastasis in the diaphragm.

The liver is very sparingly involved with metastases, but, owing to the dark color of the liver substance, they stand out very prominently. The nodules are not over the size of a large hazelnut, having all the characteristics of those already described. A concretion is observed in the common duct, and as a consequence we find dilation of the duct. Symptoms referable to this condition were absent.

While both kidneys show metastases, they have developed in the right to such a degree that this organ has become completely changed into tumor tissue. Section of this shows the centre to have the characteristic creamy color, while at the periphery the tumor tissue is more hæmorrhagic, showing a dark yellow color going on to brown. All along the renal vein we see hæmorrhagic metastases passing into the vena cava. A mass of the size of a good-sized hen's egg is lying in the vein, also one where the vein empties into the vena cava. Even at the bifurcation of the vena cava smaller masses are found. The other kidney is only slightly involved. All that can be seen is an area two inches in diameter at the upper pole. This has not the creamy color, but is very hæmorrhagic. This kidney must have been quite active, considering the comparatively normal constituents of the urine.

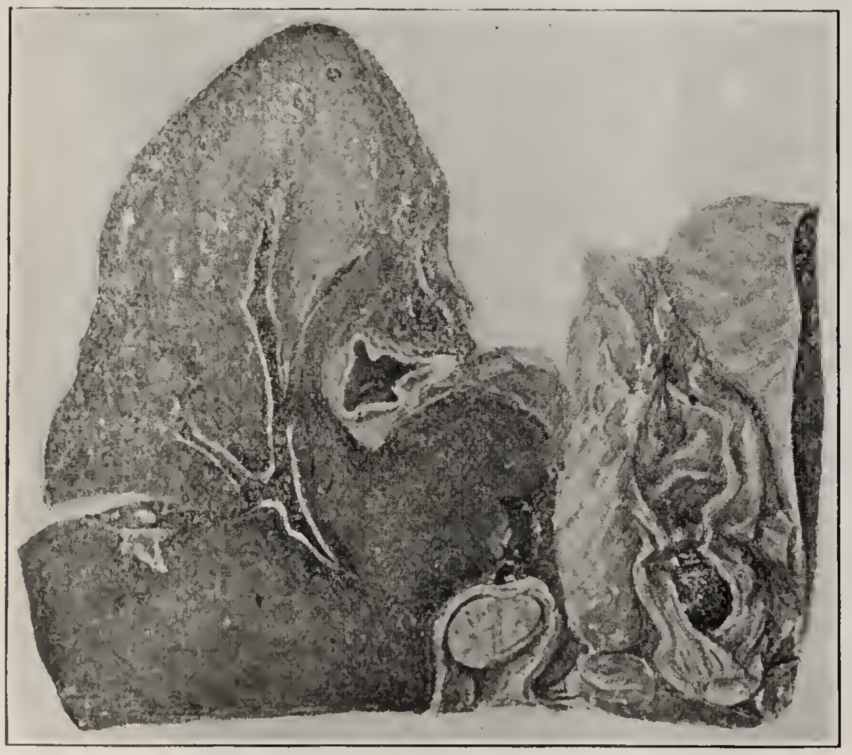

FIG. 6.—Endothelioma of the bone. Metastasis in the liver.

After this macroscopic description of the metastases, showing the extreme malignancy, I will proceed to describe the microscopic findings.

Sections of the primary tumor were hardened in Kaiserling's fluid and imbedded in celloidin. A piece of the marrow close to the tumor was put through the same process. Parts of the metastases went through the formalin hardening, blocked in paraffin. It was very difficult to procure good stained sections; several stains were tried, but the most successful was alum hæmatoxylin and eosin. If we look at a section of the primary growth, the first thing which confronts us, and very prominently, is the extreme vascularity of the growth. This was already diagnosticated by the pulsation and bruit, reminding one very vividly of an aneurysm, and it would be injustice to condemn such a diagnosis; undoubtedly many times such conclusions have been arrived at. Next in prominence are the endothelial cells, with their transparent protoplasm. The arrangement of these cells is very variable. Some we see closely aggregated along blood-spaces; others are found in clumps. The morphology of the individual cells varies considerably, being dependent a great deal on the position they occupy. Here we find some round or oval; then, again, we see polygonal and spindle outlines. The cells have a size varying from 10 to 30 μ, so that some are rather large. The protoplasm of these cells is very characteristic of this tumor, which has a glossy appearance; on closer inspection, a very fine granular material is found, which, however, would easily pass unnoticed on superficial examination. Binding this protoplasm, we have a well-marked membrane; in nearly every cell this can be made out. The most prominent part is the well-stained nucleus, showing to good advantage the contrast with the very light proto-

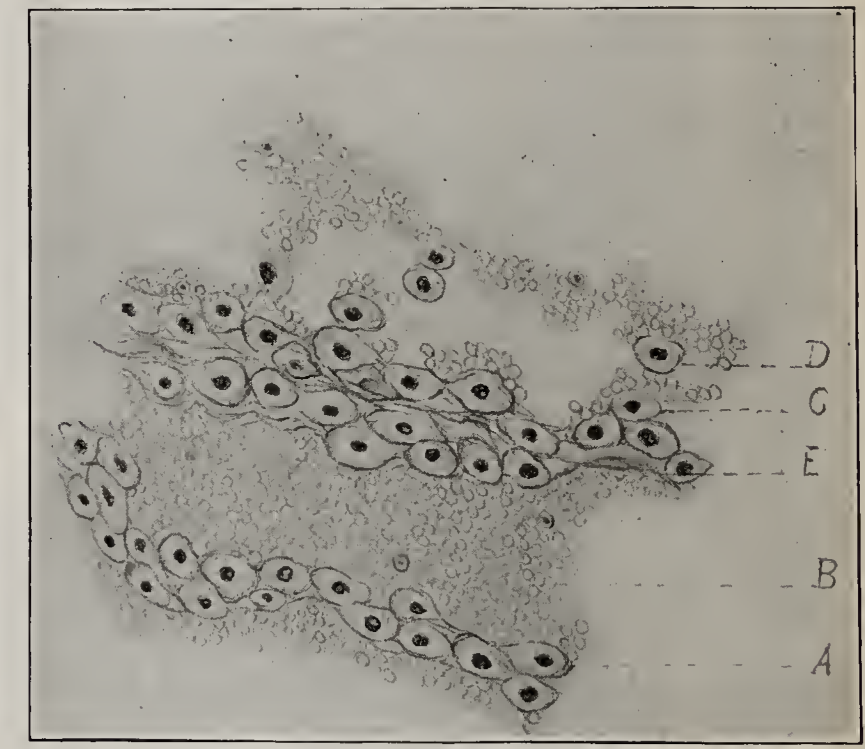

FIG. 8.—Longitudinal section. The cell masses appear in strings; *A*, endothelial cells; *B*, blood-vessels; *C*, endothelial cell in the act of separation; *D*, endothelial cells, loose in the blood current; *E*, connective-tissue sæpta.

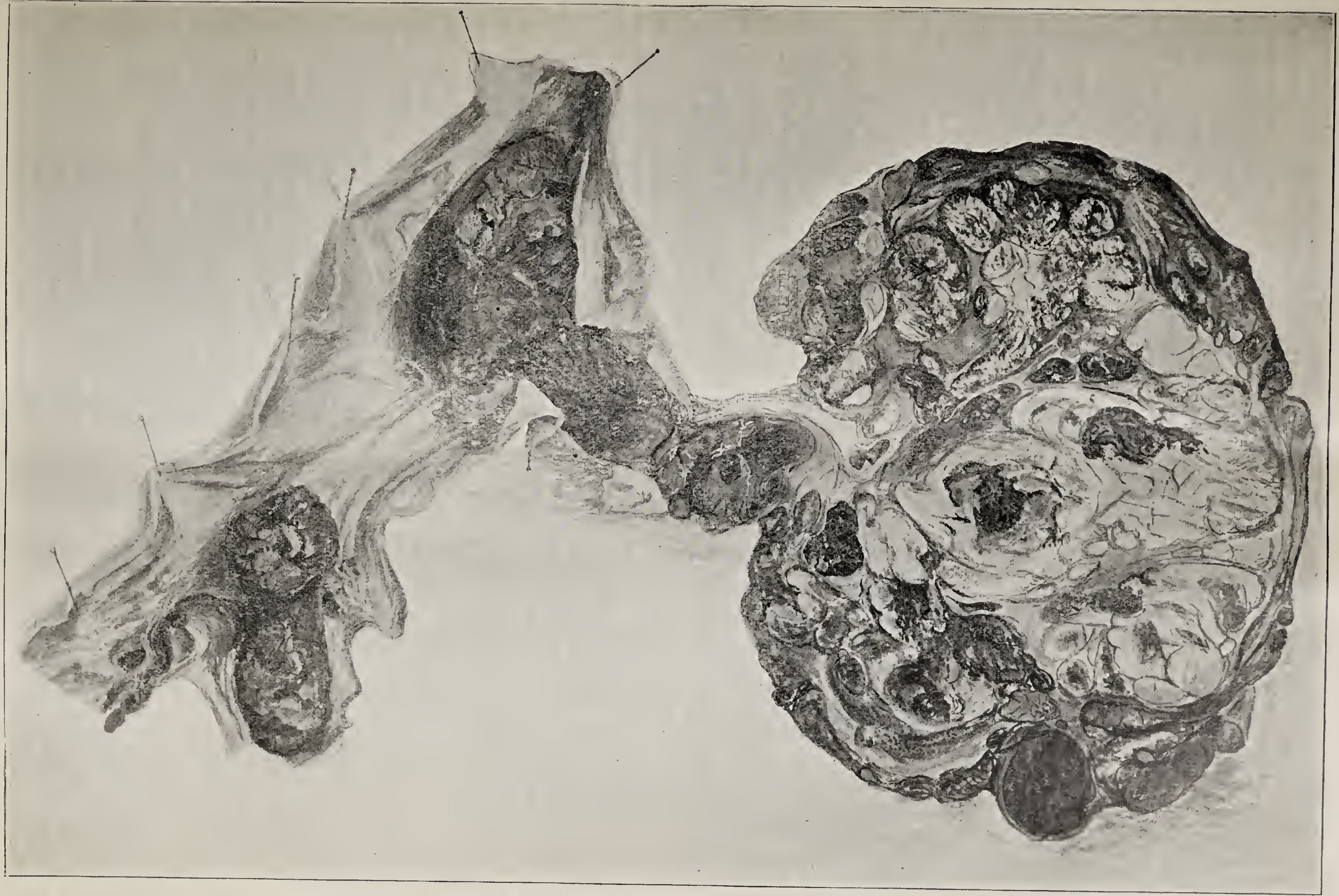

FIG. 7.—Endothelioma of the bone. Metastasis in the kidney. Renal vein and vena cava infected.

plasm. The position of the nuclei may be found in the centre or nearer the periphery of the cells, occurring in both round and oval forms. Within the nuclei, granules are seen, having a strong affinity for the basic stains. These nuclei are not unlike those of the epithelial cells; it would, indeed, be difficult to distinguish them, but generally the protoplasm will decide the question. The arrangement takes on a variable character; on the whole, very little stroma is seen; very prominent are certain dark masses which are found all through the primary tumor. At first I came to the conclusion that it was nothing else than bone not yet absorbed, but after treating sections with hydrochloric acid, also some with nitric acid, no change was seen in the dark masses, and staining for fibrin was also negative, so it can be nothing other than pigment. This pigment, very probably, is of hæmatogenous origin, resulting from the breaking down of the hæmoglobin, and its being deposited in the endothelial cells and possibly also in the stroma cells. The sæpta which are seen to run between the longitudinal sections, also around the alveoli, are rather thin, and in some places they are absent altogether. The blood-spaces differ in their shapes according to the direction of the sections, and surrounding these, one or more layers of endothelial cells are seen, as an irregular outline. What is of importance, we are unable to see a wall which belongs to the blood-vessels themselves; even the walls of the capillaries, which, as we know, consist of a layer of flattened cells forming a delicate membrane around the minute blood-channels, are found absent; here and there this wall appears as though it might be present, but this is extremely doubtful. Instead of seeing it, we have the swollen, glassy cells, surrounding the spaces in an alveolar form. Every one of these cells is well outlined. If a longitudinal section is studied, we find, running parallel with the blood-spaces, one or more layers of these cells, always noticeable in the absence of the separation marking the line of division between blood-vessels and interstitial tissue, and, again, an enlargement of these cells, approximating the blood-stream. More than this, we have loose cells, directly in the blood-current, which have become detached from what appears to be the wall, and are thus carried along in the current. This process of separation can be seen in all stages. It must be observed that all those cells that are in the act of separation, are swollen; the nuclei, however, are very distinct. In the blood-spaces we see nothing except the red and white corpuscles. Nearly the whole section shows blood-spaces, endothelial cells and considerable pigmentation, and in some of the spaces degenerated red blood-corpuscles are seen. The metastases show great similarity in structure, but do not have nearly so great a blood supply as the primary growth. Their formation consists of a more alveolar structure, and pigmentation is seen.

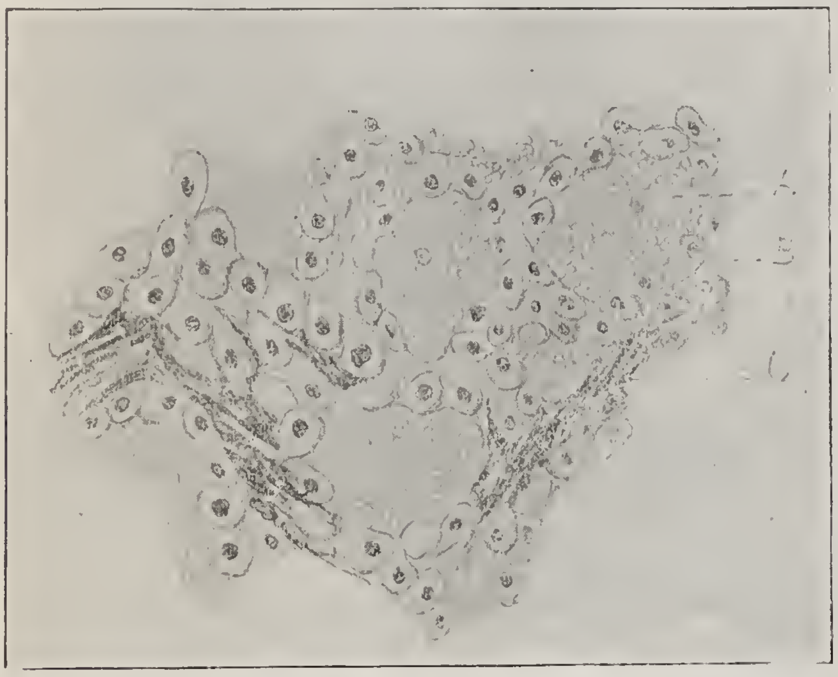

FIG. 9.—Transverse section. *A*, blood spaces lined by one or more layers of endothelial cells; *B*, connective tissue; *C*, pigment deposit.

(To be concluded.)

REPORT OF A CASE OF FACIAL NEURITIS, ASSOCIATED WITH UNILATERAL RETRO-ORBITAL NEURITIS.

By WILLIAM M. LESZYNSKY, M. D.,
NEW YORK,
CONSULTING NEUROLOGIST TO THE MANHATTAN EYE AND EAR HOSPITAL.

MRS. M. S., born in the United States, thirty-eight years of age, was first seen by me October 11, 1898, when the following history was obtained:

She has been married eighteen years, and has several healthy children. No miscarriages. One year ago, she had three attacks of pulmonary hæmorrhage. One sister died of pulmonary tuberculosis. Family history otherwise unimportant. Patient's general health has always been good, and she has never suffered from rheumatism or amygdalitis.

Five weeks ago, after severe pain and tinnitus in the left ear, she noticed that the left side of the face was paralyzed. She attributes her trouble to prolonged exposure to a cold draught.

Examination shows complete left facial paralysis with lagophthalmos, and loss of faradaic irritability in nerves and muscles. The muscles react to galvanism AnCC > CaCC. Sense of taste impaired on the left anterior two-thirds of the tongue. Loss of taste for sweet, sour, and salt, but bitter can be distinguished. Palate and tongue normal. Pupils normal. Chronic catarrhal otitis affecting both ears. Absence of physical signs of pulmonary disease, and no evidence of syphilis. The usual galvanic treatment of the facial muscles was instituted.

By December 15th (in two months) she was able to close the left eye. On the 20th she began to complain of severe pain in the left temporal region, and also over the supra-orbital nerve distribution, with tenderness on pressure and inability to sleep on account of the pain. There was no fever, but, the bowels being constipated, she was given five grains of calomel with twenty grains of compound jalap powder.

One week after the beginning of the pain, vision began to fail in the left eye, and two days later the eye was totally blind. The pain disappeared entirely at the end of the second week. The right eye was not involved.

The left pupil was larger than the right. L., 4.5;

R., 4. In the left there was no reaction to light, consensual, +, in convergence normal. Right pupil; no consensual reaction, but otherwise normal.

No perception of light in the affected eye, while the right eye showed vision of $\frac{20}{15}$. At first there was slight œdema of the papilla, with blurring of outline on the nasal side of the disk. This gradually increased, and at the end of a week the papillitis was quite pronounced.

She was also seen at this time by Dr. Webster and Dr. Lewis, at the Manhattan Eye and Ear Hospital. Examination of urine, negative. Mercurial inunctions and potassium iodide, ten grains t. i. d., which was gradually increased. By the 21st of January, 1899, perception of light was possible.

October 4th, vision was $\frac{20}{200}$, the ophthalmoscopic examination showing optic atrophy.

October, 1900.—Although the nerve and muscles react to faradaism 28 mm. (quantitative decrease in irritability), there is no improvement in the motility of the facial muscles. Optic-nerve atrophy is well advanced, and the vision of the affected eye is limited to perception of light, while the pupillary condition has remained unchanged.

56 East Fifty-eighth Street.

RUPTURED URETHRA, WITH REPORT OF CASES.*

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It is not my purpose to consider in this paper those cases of pathologic rupture of the urethra secondary to organic stricture of non-traumatic origin. Nor shall I more than cursorily refer to those cases of traumatism of the urethra, the result of faulty or violent catheterization. The ease with which false passages can be produced by the careless manipulation of an instrument is known to all. The serious consequences which attend such lacerations, most of you have undoubtedly seen. There is not only urinary infiltration, but also the infectious inflammation of the cellular tissues that follows it. Unrelieved, this infection may be so virulent as to cause death. Local gangrene is a frequent result.

I shall but briefly mention those cases in which the urethra is ruptured as a result of violence so severe as to produce fracture of the pelvis and extensive laceration outside of the urinary tract. I can recall, as the assistant of the late Dr. Pease more than twenty years ago, three such cases, all occurring within a space of eighteen months.

The first was that of a young man employed in the machine shops of the New York Central Railroad of this city, upon whom a heavy iron beam, weighing several tons, fell, crushing all the parts in the neighborhood of the pubic arch.

The second was that of a man of advanced years, employed in a salt block, who fell from a height and struck the perinæum upon the edge of an iron salt kettle filled with boiling salt water. One-half the body was badly scalded, while the perinæum and urethra were severed, and the pubic arch fractured.

The third patient was a brakeman on the New York Central Railroad, who was caught between the bumpers of two freight cars and severely squeezed, crushing the pelvic tissues. A catheter introduced into the urethra found its way out of the rectum.

I regret that I have not the notes in detail of these cases, for, as stated, they occurred in the practice of the late Dr. Pease. In each instance, perineal section with drainage, together with such other measures as each case indicated, resulted in a permanent cure.

As opposed to these very severe forms of injury, let me call your attention to another group of cases:

Case I. *Subcutaneous Rupture of the Urethra; External Urethrotomy; Faulty Dilatation; Subsequent Divulsion; Recovery.*—W. B., seen with Dr. H. A. Weed in Jordan, July 1, 1893; aged sixty-four, married; a farmer by occupation. He had learned to ride a wheel, and on one occasion sought to display his skill on the bicycle. However, as he attempted to mount it, he slipped and fell, straddling the hard tire of the hind wheel. There was discharge of blood from the urethra and retention of urine. Two ineffectual attempts had been made to catheterize him without an anæsthetic. I saw him twenty hours after the receipt of the injury. The perinæum, scrotum, and upper portion of the thighs were deeply ecchymotic and swollen. Blood was still oozing from the penis. Under an anæsthetic, I succeeded in entering the bladder by carrying my instrument well up against the pubic arch. I withdrew the instrument, and substituting a Gouley's tunneled catheter, did an external urethrotomy. A perineal catheter was introduced into the bladder, and drainage established. The patient remained under the care of Dr. Weed. He did not bear instrumentation well, and in fact did not permit the doctor to use sounds of proper size, or to introduce them with regularity. In consequence thereof, he had, after a few months, increasing difficulty in urinating. I was therefore called again to see him on June 2, 1894, not quite a year after receipt of the injury. He was unable to empty the bladder. There was also considerable spasm of the deep urethra. He had no particular trouble at night, but as soon as he was on his feet in the morning there was a strong desire to empty his bladder, with the awakening of a sudden spasm which prevented his doing it. Examination showed that there was a contraction at the bulbo-membranous urethra. This I relieved by forcible divulsion with a deep urethral dilator, after which, sounds of sufficient size were regularly passed, and the patient had no further trouble.

Case II. *Complete Severance of the Urethra Subcutaneously; Perineal Section; Perineal Drainage; Recovery.*—G. M., aged fifty-eight, was admitted into St. Joseph's Hospital February 24, 1899. He was a carpenter. The day before his admission into the hospital he was engaged at his trade, and met with an accident. He fell a distance of only four feet, and landed straddling a plank two inches by ten, striking squarely upon his perinæum. He was seen by Dr. Earl W. Smith and Dr. Totman, who made ineffectual attempts to enter his bladder. There was retention of urine with hæmorrhage from the penis. Upon admission into the hospital, the penis was black in color, enormously swollen. All of the tissues of the perinæum, thighs, buttocks, and lower part of his back were as deeply discolored. Ether was administered. It was impossible to introduce an instrument into the bladder. Perineal section without a guide was performed. The tissues were so deeply stained with the free bleeding that had occurred, that all structures looked alike. The perineal incision was very carefully placed in the median line. A sound carried through the anterior portion of the urethra showed this tube to be completely broken off. Carrying my finger into the perineal wound upward and backward along the normal course of the urethra, I reached a point which seemed to feel like a firmly contracted tube. It had about the calibre of a urethra which had been cut across, and felt as though it might be this canal drawn upward and backward by the contraction of its muscular structures. Guided by the sense of touch, I carried a catheter to this point and found that I was not mistaken. I was able to enter the bladder easily.

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*Read at the quarterly meeting of the Onondaga Medical Society, September 25, 1900.

The subsequent history of this case is one of great interest. Marked interference with the vitality of the parts caused an infectious inflammation, which was attended with considerable fever for a few days. On the fifth day, the temperature was 104° F., and for the two weeks following, there was a daily rise in temperature, reaching its fastigium eight days later, when it was 104°.6 F. After a fortnight it became normal. As a result of the infection, there were secondary abscesses, one about the left shoulder, another of the right arm. The pus coming from each of these had a fæcal odor. The patient ultimately made a good recovery. April 30th, the urine passed freely through the urethra, but the suppurating condition of the patient's arm kept him in the hospital until the 27th of May.

These two cases present, so far as the manner of their production is concerned, a history much alike, *i. e.,* each fell but a short distance, yet struck with considerable force upon the perinæum. In the one, however, there was urethral laceration, and in the other, complete rupture. In the second case, the injury was much more serious. I do not find anywhere recorded the fact that a completely severed urethra so retracts that it becomes recognizable to the sense of touch. No attempt was made in either of these cases to approximate by suture the torn surfaces of the urethra.

The perineal catheter was kept in place for two weeks in the first, and four weeks in the second case. After the first forty-eight hours, the catheter was withdrawn each day, thoroughly cleansed, purified by boiling, and replaced. Each time this was done, the bladder was irrigated with boric-acid solution. After the fourth day, a curved sound was passed through the whole length of the urethra. It was guided through the torn tissues by the finger placed in the perineal wound.

Case III. *Urinary Fistulæ Following Urethral Rupture; Perineal Section; Recovery.*—J. G., aged forty-nine, widower, driver, with negative family history; admitted into St. Joseph's Hospital May 31, 1900. Fifteen years before, had had both gonorrhœa and syphilis. One year previously, he fell astride the thill of a wagon. Immediately thereafter he passed large quantities of blood *per urethram.* Difficulty of urination occurred. The case was allowed to take its own course. Abscess of the scrotum followed, and two fistulæ formed, one on the anterior, and the other on the posterior surface. Through these he urinated altogether at the time of admission into the hospital. The right half of the scrotum presented a hard, infiltrating mass, reaching into the perinæum, and involving all of the tissues of this part. The testicle was enlarged and hard, and a great mass of cicatricial tissue encased both fistulous tracts. It was not possible to carry a guide into the bladder. Perineal section was done. A long median incision, extending from the perinæoscrotal attachment as far as the anus, was made. A probe was next introduced into the posterior fistula, which was then freely opened, and by this means we found our way through a mass of cicatricial tissue into the dilated portion of the urethra behind the site of obstruction. The urethra had been dragged fully half an inch to the right of the median line by the cicatricial adhesions. Perineal drainage and the introduction of sounds daily after the fourth day completed the line of treatment. The patient but once had a temperature of 101° F.; otherwise it was normal. When he left the hospital sixty-four days after admission, No. 34 curved sound could be carried readily into the bladder, and the perineal wound was well. The fistulæ healed spontaneously.

Case IV. *Penetration of a Branch of a Tree through the Anterior Wall of the Rectum, Severing the Urethra Completely.*—W. B., of Oneida, aged twelve, of healthy parentage and himself a vigorous boy. At eleven o'clock on the morning of January 13, 1900, he was sliding downhill backward upon a low sled. A bough of a tree, with three branches cut off about a foot from the parent stem, had become fixed in the snow and frozen to the ground so that two of the branches were buried. The third projected upward at an angle of about forty-five degrees from the ground. As the patient slid downhill with his back exposed to the branch, it penetrated his anus, after passing through his clothing, and tore through the anterior wall of his rectum. He was found by his father impaled upon this branch, which was about one inch in diameter and one foot in length, and lifted off. Dr. J. F. Huntley was called. He found him suffering from profound shock. I reached Oneida shortly after four o'clock, and saw him in consultation with Dr. Huntley and Dr. Bailey. Examination showed that there was blood oozing from the penis and rectum. The anus was but little torn. The finger, introduced into the rectum, passed through a vertical slit in the anterior wall of the rectum close to the prostate. Through this, the finger could be carried readily upward and forward. It did not enter the free abdominal cavity, but the posterior surface of the pubic arch could be felt with all the structures torn from it. By careful palpation, I was again able to feel the posterior end of the severed urethra. The boy had not urinated since the receipt of his injury. Under chloroform, I succeeded in carrying a sound through the urethra to the point where I could, with a finger in the rent of the rectum, feel its free end. By gentle manipulation, I succeeded in guiding it to the point which I believed, and which proved to be, the posterior extremity of the urethra, and thus into the bladder. The sound was withdrawn and a tunneled catheter substituted. A perineal incision was made down to it, and through the perineal wound, a catheter was carried along the course mentioned into the bladder. No attempt was made to suture the rectum, but the catheter was secured in place and iodoform gauze strips were carried through the perineal wound into the space anterior to the rectum.

The subsequent history received from Dr. Huntley indicated an uninterrupted convalescence. The bowels were moved daily. The gauze carried through the perineal wound was replaced in lessening amount until the space was healed, the parts filling in with granulations. The catheter was withdrawn and replaced daily, and sounds passed after the fourth day. On March 7th, about eight weeks after the injury, the patient called at my office. The perinæum and rectum were both thoroughly well. A No. 23 French sound entered the bladder readily. The boy complained of no urinary disturbance whatsoever. I advised the continued use of the sound for some time at intervals of a week, and have received word recently that he is enjoying perfect health.

I have selected these four cases from quite a series treated in hospital and private practice. They present the usual problems in diagnosis and treatment, encountered in this class of traumatisms. The first two cases demonstrate that no great degree of force is necessary, not only to lacerate, but indeed to completely sever the urethra. The laceration is, as a rule, subcutaneous. The necessity for early diagnosis is apparent. Hæmorrhage from the urethra with retention of urine, and associated with bleeding into the perinæum, scrotum, and buttocks, clearly indicates the existence of a ruptured urethra. Immediate relief is imperative. Urinary leakage is to be anticipated, and the consequent infection of the soft parts averted. If this is not done, a gangrenous process may be expected, and the danger of death from sepsis is real.

The repeated introduction of a catheter through the urethra into the bladder is not wise. As a rule, this method of treatment fails, because the lacerated parts are subjected to still further tearing, or, at least, to frequent irritation, and urinary leakage is not absolutely avoided.

The wearing of a permanent catheter, to my mind, is not advisable. Urine salts collect about the tube, the instrument becomes speedily unclean, and in the end we have a septic condition. On the other hand, satisfactory drainage of the bladder and the soft parts is accomplished by perineal incision.

As to the further steps in the surgical treatment, however, the profession is not agreed. Lucas-Championnière and John Birkett were the first to advocate the attempt to repair the torn urethra by immediate suture. Theoretically, at least, this plan commends itself. But when we pause to consider the difficulties of even finding a urethra that we are often compelled to locate without a guide, and when we appreciate its torn and bruised condition as well as that of the surrounding structures, we realize that this plan is beset with many difficulties. Add to this the great tension that necessarily must occur when the parts are approximated; the need at the same time of using absorbable sutures so that no foreign bodies remain behind to cause future interference with repair, and the fact that, if surfaces of mucous membrane are brought into apposition, no union will occur, and we are furnished with further reasons for not attempting this surgical procedure.

Moreover, there remains another important problem to be solved in the reparative process. Stricture formation is to be prevented if possible. This, to my mind, cannot be accomplished by introducing a medium-sized catheter and sewing the urethra over it. Nor is the frequent passage of a sound through a sutured urethra calculated to avoid it. The wearing of this permanent catheter, likewise, has the objections already referred to.

On the other hand, a generous incision permits free drainage of the lacerated tissues, the introduction of a perineal tube into the bladder, and thorough drainage of this viscus. The perineal catheter after being worn forty-eight hours could, upon removal, be replaced in the dark, so rapidly and thoroughly do the tissues cement themselves about it. Once each day it should be removed for the purpose of thorough cleansing. This, with daily irrigation of the bladder, keeps the parts in good condition. It is interesting to note how Nature builds up a new canal by repairing the break in the old one. Granulation tissue springs up from all sides, and when the time has arrived therefor, the mucous membrane grows in from the severed ends of the urethra until the tube is relined. It rests with the surgeon to shape this canal. This is to be accomplished by the daily passage of a full-sized curved sound into the bladder. If this is very painful, the sound can be inserted on alternate days for two weeks. Its use should be begun on the third, or not later than the fourth day. If systematically carried out, using a sound of 32 to 36 French calibre as the case requires, no danger of stricture need be feared. If this is neglected, however, stricture is likely to form, as occurred in the first case here reported.

Koenig has still another plan to suggest. It embodies the partial closure of the urethra, he having failed usually in his attempts at complete suture. He uses no drainage. The patient is allowed to urinate at will through the perineal wound. He passes a sound but once a week, and then uses an instrument of from 22 to 26 French calibre. I cannot believe that this plan affords the same opportunity, either for immediate or ultimate satisfactory repair.

In the third case, we have presented the late pathologic changes that occur where Nature, and not the surgeon, has found relief for the retained urine. Here we have to deal with tissues altered in character and position by the process of cicatrization. These patients are worn out by the long, usually painful, and always depleting sickness, that such misnamed "conservative" treatment entails.

The after-treatment in these cases is the same as after recent rupture, although the period of recovery I have found to be more protracted.

Finally, I desire again to emphasize the manner in which the proximal end of the severed urethra was recognized in the second and fourth cases. I feel sure that careful search with the finger will often locate this end of the urethral tube, and permit the ready introduction of the catheter into the bladder.

A CASE OF CONGENITAL OCULAR DEFECT (?)*

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It is an honor and a pleasure to me to show you this evening a patient with symptoms not so frequently met with. This lady, twenty years old, was referred to me by her physician; she complained of headache. On examining her eyes I found vision in each eye $\frac{5}{9}$; vision in both eyes together with + 0, 5 D. $\frac{5}{5}$. With the Javal-Sciötz ophthalmometer a conical astigmatism of ± 1 D., max. 0° (1). In the right eye fine opacities in the vitreous. Except this, I could not find any other abnormity in both eyes.

When the patient looks in the distance, there is hardly anything particular to be seen; perhaps a divergence slightly more pronounced than normally, and in that case it should be the right eye. Convergence is normal. The right eye moves normally in all directions, with the exception of the lateral movement, which is somewhat incomplete. Still, the patient is able to bring this eye in the temporal corner of the eye-cleft.

When we ask her to follow an object with her left eye we see that she is *absolutely incapable* of doing so in the temporal part of the visual field; all abductive power of that eye is absent.

To state this defect is easy. It is not so easy, however, to make the diagnosis. The patient does not remember ever to have suffered in regard to her eyes, nor has she had a disease such as diphtheria. She has never squinted, never seen double images, and carries her head perfectly normal. By bringing a prism with its base horizontally before one eye, she sees two homonymous lights, especially after coloring the one, but often one image is not perceived. In general, many symptoms are present showing that single vision with both eyes does not exist.

I believe that I am justified in stating that this condition has existed a long time, and that the commencement dates from her earliest life. But I am not sure if this is a congenital or an acquired condition.

We know that defects in the mobility of the eye muscles are found to exist by no means infrequently in the new-born, congenital ptosis being the most frequent. Hirschberg found among 116,000 patients in his clinic, 31 cases of congenital abducens paralysis. Moebius considers this condition as the sequence of the disappearance of the nucleus, and takes together the congenital paralyses and the acquired ones in the earlier youth, both following after "infantiler Kernschwund." Kunn and Marina separate strongly the congenital forms from the acquired. Kunn considers the defect as congenital, where other retardations in the normal evolution are present, where other members of the family suffer, or where the condition exists in both eyes. In many cases of congenital paralyses a disturbance of the associated movements is present, while the convergence has not suffered; this will never be found in those forms acquired in later life.

The anatomical basis of the congenital defect of movement is very different; its origin is a disturbance of the evolution, or in the central or peripheral nervous apparatus, or the muscle is weak, or is wanting, or its insertion at the bulb is mechanically unfavorable. (See Schmidt-Rimpler. *Die Krankheiten des Auges in Zusammenhang mit anderen Krankheiten,* 1898, pp. 181-185.)

The condition before us could have been acquired, and we should then have the result of a paralysis such as A. Graefe mentions in his second category: "The paralysis remains at its original extent, or retrogrades only very slightly to remain then in this state. Secondary changes in the position do not appear." (Graefe u. Saemisch. *Handbuch der gesammter Augenheilk.,* 2te Aufl., Lieferung 1, p. 35.) To account for such a paralysis, I will quote Panas in his very valuable paper, *Paralysies oculaires motrices d'origine traumatique,* read before the International Ophthalmological Congress at Utrecht, 1899, and published in the *Archives d'ophtalmologie,* November, 1899: "Lors donc qu'il s'agit de paralysies congénitales de l'abducens de nature indéterminée, comme dans . . . ; c'est à la compression basilaire par hémorrhagie, qu'il faut penser exclusivement." And somewhat later: "Pour revenir aux paralysies obstétricales, nous ferons observer combien sont communes les apoplexies méningées et les hématomes orbito-crâniens lors d'accouchements prolongés et laborieux. Même chose se passe du côté des rétines, où l'on rencontre fréquemment à l'ophtalmoscope des apoplexies multiples. Car étant donné les rapports intimes que le sinus pétreux inférieur affecte avec l'abducens, . . . on conçoit qu'une pléthore sinusique par gêne circulatoire générale ou telle qu'elle resulte d'un aplatissement mécanique du crâne par le bassin rétréci et le forceps puisse devenir cause de la paralysie du nerf le plus souvent sans fracture."

Dr. Scrinis, a pupil of Professor Panas, examined sixty-four new-born children, in the clinic of Professor Pinard, from one to fifteen days old, of whom thirty-one squinted inside alternately on fixation of a brilliant or luminous object. The mothers of these thirty-one children were twenty-one primiparæ and ten multiparæ. In three cases, the forceps had been applied, two children were born sub-asphyxiated. Scrinis examined in the clinic of Professor Budin fifty-six children, twenty of whom had convergent strabismus and of whom fifteen were younger than ten months, five being not older than two years.

A. Graefe communicates in his article, quoted above, at page 86, §76, under No. 1, a similar case to the one presented. We read: "21-jähriges Mädchen mit seit erster Kindheit bestehender, vielleicht angeborener *Paralysis completa abducentis (dextra).*"

Considering that a far more competent man has been unable to judge between the two possibilities, you will not expect me to cut the Gordian knot.

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*Presented at the Ophthalmological Section of the Buffalo Academy of Medicine, October 22, 1900.

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WHAT THE LAW REQUIRES OF THE SURGEON.*

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Before entering into a consideration of the details of my subject, I think it well to have an understanding of the meaning of the title surgeon. In Great Britain, "a surgeon is a person whose education is equal to that of a bachelor of science in a university, and whose professional qualifications are such as enable him to undertake the treatment of diseases and injuries by manipulations with the hands, by external appliances, or by the use of instruments." He need not be a graduate of medicine, but must have successfully passed the examinations prescribed by the Royal College of Surgeons. In the United States we have but one class of medical men; they are all doctors of medicine, which must include a knowledge of surgery, and are known as physicians.

The law, however, does not hold any practitioner responsible for failure to undertake any particular branch of practice; but it does require that, in every field in which he undertakes to practise, he shall exhibit a reasonable knowledge of the science of that branch of the profession, and that he shall exhibit in his practice a reasonable or average degree of skill for that vicinity, and that he must be duly vigilant in his attentions to the patient.

The common law does not recognize special systems of medicine. In the case of Nelson *vs.* Harrington (Wisconsin), 40 N. W. 228; Amer. Digest, 1888, p. 855, the practitioner was a clairvoyant. It was held that "the trial court erred in instructing the jury that the defendant must have exhibited the ordinary skill and knowledge of the clairvoyant system." The instructions should have been "with the ordinary skill and knowledge of physicians in good standing in that vicinity."

Evidence that the defendant, in an action for malpractice, procured his license by diploma irregularly obtained, or by evading the required examinations of the State board, cannot be introduced against the defendant. Bute *vs.* Potts, 18 Cal., p. 329.

Thus it would appear the sole test is to be found in a determination of the question as to reasonable familiarity with the science of the profession, ordinary skill in the practice, and due diligence and care in attention to the patient. The fact that the plaintiff accepted the services of the defendant, believing him to be of good reputation as a practitioner, is not, however, to be accepted as evidence that the defendant possesses the legal qualifications to practise his profession.

If the action is for the recovery of a fee, the physician must prove his legal qualifications to practise. If, however, the action is against a practitioner, and the charge is lack of legal qualifications, the burden of proof rests with the plaintiff to show that the practitioner is not legally qualified.

It was held in the case of Hess *vs.* Lowry (Indiana), 23 N. E. 56; Amer. Digest, 1890, p. 2406, that it was competent for the plaintiff to show, as affecting knowledge and skill, that the defendant was engaged largely in pursuits other than the practice of his profession.

The application of this principle must have great weight in many cases, for it must be remembered that in every instance the jury is the sole judge of the sufficiency of the evidence to establish the possession of the legal requirements of a practitioner; and it should be remembered also that the jury must fix the amount of damages to be assessed for negligence and lack of knowledge or skill.

To show how far the question of negligence may extend in an action for damages, it was held, in Beck *vs.* German Klinik (Iowa), 43 N. W., p. 617, that failure to properly instruct the patient as to the management of his broken leg after the removal of the dressing, the leg afterward having become bent and finally requiring amputation, rendered the defendant liable. The plaintiff was ignorant of the limitations to which, as the court held, a surgeon should have instructed him that his condition required in the use of the leg. There was no question of skill in the adjustment of the fractured bones, or of the subsequent treatment up to the time of removing the dressing.

Contributory negligence on the part of the plaintiff, rendering two amputations necessary, in consequence of the plaintiff's failure to obey instructions, may be considered in assessing the amount of damage, but would not bar recovery for injury resulting proximately from the defendant's negligence. See Du Bois *vs.* Decker, 4 N. Y. S., p. 768.

If the patient dies on the table from the effects of an operation done by consent, in a careful and skillful manner, the surgeon believing it to be proper and necessary, the plaintiff cannot recover. State *vs.* Housekeeper, Maryland, A. 16, p. 382.

If a practitioner makes affidavit that a person is insane, for the purpose of securing commitment to an asylum, without first making due inquiry into the sanity of the patient before certifying, he is liable for negligence. It is required in every instance that a thorough and painstaking examination, intelligently conducted, shall form the basis of all such certificates. See Ayres *vs.* Russell, 3 N. Y. S., p. 338.

In determining the competency of a surgeon to practise his profession, evidence of his general reputation for skill and ability is alone relevant. It must be proved by persons knowing such reputation in the community where the defendant is engaged in practice. Lacy *vs.* Kossuth County, 75 N. W., Amer. Digest, 1898, p. 4998.

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*Read before the Mississippi Valley Medical Association, at the meeting held in Asheville, N. C., on October 9, 10, and 11, 1900.

The measure of damages to be assessed in cases of malpractice will, in most States, be divided into compensatory damages and punitive, or retaliatory, damages. Thus, the amount of damage sustained by the plaintiff may alone be assessed against a practitioner whose ignorance or lack of professional knowledge and skill may be established by evidence. Where gross negligence is established, punitive, or retaliatory, damages may be obtained in most of the States.

Sedgewick on Damages, Vol. 1, page 51, says: "It may be laid down as a general rule that an injury to any right protected by law will, if the direct consequence of an actionable wrong, be a subject for compensation."

In enumerating some of the grounds of action at law, physical pain, mental distress, and bodily discomfort are mentioned. The surgeon is in an unfortunate position when made a party defendant in an action for damages for physical pain and mental distress, the pecuniary equivalent of which is to be measured entirely by a jury of laymen.

The ethics of the medical profession has frequently been recognized in courts of law. In the case of Bremerman *vs.* Hayes, 9 Pa. S. C. 8; Amer. Digest, 1899, p. 463, it was held that evidence that the ethics of the medical profession forbade physicians charging for services to each other, and that it was the custom in particular localities not to charge for such service, was admissible to negative an implied promise of one physician to pay for the services rendered by another.

There are many other instances which might be cited to show the importance of observing the *Code of Ethics* as affecting the character of individual members of the profession. It has frequently been held that a surgeon who does not observe the ethics of his profession is not a man of good standing in the profession, and it may be inferred that such an individual would, in many ordinary situations, be practically without means of defense in a court of law. In the case of Lange *vs.* Kearney, 4 N. Y. S., p. 14, it was held that "the surgeon may prove his high standing in the profession as bearing on the value of his services."

Failure to observe the requirements of the law as to contracts does not always invalidate the claim of the surgeon to compensation from employers. In Indiana it was held, Terre Haute & I. R. R. Co. *vs.* Stockwell, 20 N. E.; Amer. Digest, 1889, p. 3019, where the defendant's train injured a person, the conductor employed the plaintiff to render medical aid, and informed him at the time of the accident that he would leave the injured man in his care for treatment, "the terms of employment extended beyond the mere dressing of the wounds, and covered all services necessary until convalescence." It is clear, therefore, that the surgeon would have been liable for neglect had he abandoned the injured man or failed in any way to render him the best service obtainable from surgeons of the first class in that vicinity.

It is a principle of law that liability for damages flows out of the relationship of the surgeon to his patient, without regard to the element of employment, and that it may result from negligence in treatment, in prescribing, or in giving instructions to the patient as to how to take care of himself when under treatment. See Leighton *vs.* Sargent, N. H. 460, and Carpenter *vs.* Blake, 60 Barbour's Digest, p. 485.

Story, *On Bailments,* p. 433, says: "In all cases where skill is required, it is to be understood that it means ordinary skill in the business or employment which the bailee undertakes; for he is not presumed to undertake for extraordinary skill, which belongs to a few men only in his business or employment, or for extraordinary endowments or acquirements. Reasonable skill constitutes the measure of the engagement in regard to the thing undertaken."

Ellwell, *On Malpractice,* points out some of the defects in establishing the responsibility of physicians and surgeons, inasmuch as the operation of causes and influences over which the practitioner has but little or no control may form a large part of the grounds of action; matters that are so occult that no human foresight is able to anticipate them before they have completely deranged the plans of the practitioner bringing about a result entirely different from that which was confidently expected.

Another element in actions for malpractice which must not be lost sight of is "the change and advancement in medical knowledge, as influencing both diagnosis and treatment, tending constantly to elevate the average skill and intelligence required by law in the determination of liability for negligence and want of ordinary skill." See Small *vs.* Howard, 128 Mass., p. 131.

The surgeon should remember that determining the degree of care and skill is a mixed question of law and fact. The questions of law are always determined by the court, while the questions of fact are always matters of evidence to be determined by the jury. Any experiment involving a departure from known methods of treatment, or for the purpose of trying unknown remedies, or for the performance of operations not usually employed by the profession, in the event of an unfortunate result, renders the practitioner liable. See McNevin *vs.* Lowe, 40 Ill., p. 209.

The profession of medicine enjoys immunity from jury service, but is obliged to obey all ordinary processes of law. The physician is, in most of the States, exempted from attendance at court, except in criminal cases. The measure and extent of his responsibility may be fairly stated to greatly exceed those of any other citizen; and, while, as I have shown, the measure of his liability for damages, as well as the amount of damage to be assessed, is to be determined by a jury of laymen, it must be remembered that the evidence upon which the jury bases its verdict must always be obtained from witnesses engaged in the same line of practice as the defendant. In a large percentage of actions for malpractice against professional men, it is lamentably apparent that some jealous professional rival is the instigator of the action. An exception to this rule may occasionally be found, but so rarely as to give emphasis to the force and importance of the rule.

In establishing negligence on the part of a practitioner, it was held in the State of Ohio that a renowned ophthalmic surgeon, being consulted for an injury to an eye, announced as his opinion that the injured eye should at once be removed to prevent the danger of losing the sight of the fellow-eye. The mother of the injured youth begged and persuaded to have something done for the relief of the pain. The surgeon, good-naturedly yielding, prescribed an anodyne, and at each subsequent visit renewed his warning as to the danger to the fellow-eye. Finally, in a few weeks, the fellow-eye became dim, and the youth was taken to the hospital, where another surgeon enucleated the injured eye, but not in time to save its fellow. The judge decided that the surgeon was liable for failure to do that which he himself had said was necessary for the protection of the plaintiff's sight, and the jury assessed punitive damages in the sum of $15,000.

There have been other instances in which courts of law have held that the surgeon was liable for any damage resulting from neglect to do that which in his own judgment was necessary for the protection and relief of the patient when the thing omitted to be done constituted an ordinary procedure in such cases in the practice of the best class of surgeons in the same vicinity.

Malpractice must be proved by a preponderance of evidence, showing a state of facts from which no other rational conclusion can be drawn than that the defendant was unskillful. Pelky *vs.* Palmer, 109 Mich., p. 561.

It may be some relief to the surgeon to know that, in the cases of Howell *vs.* Goodrich, 69 Ill., p. 556, and Blair *vs.* Bartlett, 75 N. Y., p. 150, it was held that the recovery of a judgment by a physician in an action against a patient for the value of services rendered was a bar to a subsequent action for malpractice in rendering the services in question.

A CASE OF MASTOID ABSCESS; RECOVERY WITHOUT OPERATION.

By JOSEPH D. HARRIGAN, M. D.,

NEW YORK.

CLINICALLY, this case proved so highly interesting to me that I venture to submit a record of it, thinking that it may possibly interest others.

Lillie K., aged seven years, was brought to my office on May 10, 1900, suffering from what had been diagnosticated as a mastoid abscess. The history of the case was as follows:

During the preceding winter the patient had suffered from an attack of grippe, from which she had apparently recovered, and was to all appearances well until February 15th, when she experienced most violent pains in her left ear. These continued without intermission until February 17th, when a profuse purulent discharge appeared. This discharge began to diminish about March 2d and, gradually becoming less and less, finally ceased on May 2d. Intense pain had been an accompaniment of the disease, off and on, until the cessation of the discharge, when it became very much aggravated. There had also been redness and swelling behind the ear occasionally, but when the discharge ceased, these became more pronounced and intense inflammation developed.

The child had been treated by various physicians during the course of the disease with no amelioration of the symptoms.

Finally, when the discharge ceased altogether and the condition of the child became unbearable, an operation was advised.

When I first saw the patient she was suffering most intensely. The external ear, together with the neighboring tissues, was swollen and inflamed, and stood out prominently at right angles to the side of the head; the space behind the ear was filled in with inflamed tissue over which the skin was stretched, tense, red and glossy. The child was emaciated, weak and feverish; the thermometer registered 100.2° F., the pulse was 140. In fact, the appearance of the parts, together with the history of the case, taking also into account the length of time during which the patient had suffered, left no room for doubting the correctness of the diagnosis of a mastoid abscess.

This had been the verdict of the several physicians, all men of repute, who had seen the patient previously to her coming under my observation, and by whom the operation had been advised.

The child was so weakened down by weeks and months of suffering that it seemed indeed as though she had passed the point where there could be much chance of her rallying through an operation. An operation, however, was certainly indicated and so I informed the parents, recommending also a consultation with a specialist. To this they agreed, and Dr. W. H. Bates was seen in consultation that afternoon. He immediately confirmed the diagnosis and urged the necessity of an operation without delay. The parents were in despair and begged me to do what I could for the child without resorting to an operation, especially as, in the weakened condition of the patient, they felt certain she could hardly survive.

I was in a quandary. The indications pointed one way; the pleadings of the parents tugged the other.

Now, I had noticed with satisfaction, when the child was first brought to my office, that she had experienced very prompt relief from pain so soon as a few drops of a solution of hydrogen peroxide (15 per cent.) were dropped into the ear; and also that the relief was increased by a copious injection of hot water.

With this prompt relief from pain as a partial justification of my course, and with a faint hope of success, I made up my mind to temporize.

As the patient was in a position where I could keep her under observation almost constantly, I felt that I could safely do this, and so placed her on the following treatment:

Every two hours, fifteen drops of solution of hydrogen peroxide (15 per cent.) were dropped into the ear from a warmed spoon. This was followed each time by a copious injection of hot water.

At each application of the peroxide solution it foamed up in the ear, stained with pus. Evidently it had some effect in loosening up the thick pus occluding the perforation.

The patient was directed to rest the affected ear on a hot flaxseed poultice which, in turn, rested on a hot-water bag on the pillow. The poultice was renewed every half hour.

Internally, I gave one grain and a half each of acetanilide and salol, both for their antipyretic and analgetic effect. I also placed her on a tonic, using Hagee's cordial olei morrhuae comp. As she required a laxative, I gave her solution of citrate of magnesium.

From the very first she appeared to gain. The pain grew gradually less intense, and her general condition slowly improved. Throughout the 11th, 12th and 13th of May the local symptoms of inflammation seemed to subside by degrees. The redness became less marked, the skin less tense and glossy and the swelling diminished.

On the morning of May 14th considerable pus appeared on the removal of a poultice. This was followed by marked relief in all the local symptoms, the swelling, tenderness and inflammation all subsiding considerably.

The discharge continued in greater or less quantity until May 16th, when it became very profuse and was followed by almost complete relief.

From then on, the discharge gradually lessened in amount. The patient gained strength and spirits, her appetite became vastly improved and her general appearance denoted rapid convalescence.

In a couple of days more all symptoms of inflammation had completely disappeared, the discharge had entirely ceased, and I could only pronounce her cured.

The patient remained one week more under my observation without recurrence of any of the trouble, and then I sent her home.

Up to this date, five months from the time when I first saw her, there has been absolutely no return of any of the symptoms.

I gave the parents directions to continue the tonic for some time after her return home, and also to syringe the ear occasionally, using afterward cotton in the ear to protect it from the air.

This they did faithfully, and at last accounts they declared that "she was better and stronger than ever in her life."

The perforation through which the pus made its appearance cut off the superior anterior quarter of the membrane and does not seem to have interfered materially with the hearing, as she can hear almost as well on the side that had been affected as on the other.

602 Lexington Avenue, New York.

Society for the First Aid to the Injured.—A very successful branch of the Society for the First Aid to the Injured has been in operation for some time among the employees of the E. P. Allis Company at Milwaukee, Wis. Now a movement has been started to organize branches outside this company's works, and with every prospect of success. Dr. T. Lucast, the shop physician of the Allis Company, who has been superintendent of the society in the works, and Dr. Lanson, are active workers in the new scheme.

AN UNUSUAL CASE OF MERALGIA PARÆSTHETICA, WITH INTERMITTENT LAMENESS (CLAUDICATION INTERMITTENTE—TYPE CHARCOT).

By ALFRED GORDON, M. D.,
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Within the last five years attention has been called to a disease named meralgia paræsthetica, characterized by sensory disturbances of the antero-external surface of the thigh (μηρός), due to some pathological or functional alteration of the external cutaneous nerve, a branch of the lumbar plexus. This disease, or rather syndrome, was described for the first time almost simultaneously by Bernhardt and Roth in 1895. Since then about one hundred cases have been reported in different countries. In looking up the literature one is surprised to see that the number of typical cases, just as they were described by Bernhardt and Roth, is very limited. Osler* says he never saw a purely typical case. Apart from pseudo-meralgia or reflex meralgias, in the majority of instances we meet with atypical cases.

Previously to Chipault, Mauclaire, and Wondsbeck, all the cases were treated medically, and the results obtained were almost if not entirely negative. This fact tends to prove that the ætiology and pathology were unknown. But since those three authors obtained excellent results from operative procedures on the external cutaneous nerve by resecting a large portion of it, the doubt about the origin of the trouble is removed. The following history is one of an atypical case and presents many interesting points:

A. P., aged forty-five, had typhoid fever four years ago. During convalescence he began to suffer intense pain in the neighborhood of the fourth sternocostal articulation. On account of suppuration, an operation was performed; at present we notice a cicatrix over the sternal portion of the rib, which is absent. At the same time pain appeared in the antero-external and posterior surfaces of the left thigh. The pain was present for two years, but after an interval of one year returned. Again it disappeared until seventeen weeks ago, when it reappeared. He entered the Pennsylvania Hospital, where the record shows a diagnosis of varicose veins. At two different times resections of the internal saphenous vein, first on the leg, then on the thigh, were performed.

Status Præsens.—The patient is distinctly neurasthenic. There is no syphilis or alcoholism. His family history shows that there is a strong neurotic element. He never sustained any injury, but the actual symptoms developed only during the typhoid fever. Whether while seated or in walking, he complains of a burning sensation over the antero-external surface of the upper two-thirds of the thigh, from the anterior superior spinous process of the ilium down, and over the posterior surface of the upper third, from the crest of the ilium down, covering the external surface of the buttock. Only on the superior third of the thigh does the zone of the diseased surface pass beyond the middle line; there it reaches the internal surface of the limb as far as the line of contact with the scrotum.

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* *Journal of Nervous and Mental Diseases*, 1897.

The whole paræsthetic area, except that of the internal surface, is not an uninterrupted one, but in isolated places with intervals. The tactile sensation over this area is very much diminished; the patient feels at each contact that something is interposed between the thigh and the hand of the operator, and, to use his own expression, the sensation is similar to that which is felt from a hard piece of leather. The burning sensation is slightly improved by flexing the thigh on the pelvis and the leg on the thigh, but it is always present. When the patient walks, the burning sensation persists, but he suffers from pain. The last does not appear immediately after he begins to walk, but a few minutes later, and then he has to limp. He cannot walk more than half an hour at a time, and, what is more remarkable, as soon as he sits down, the pain becomes more intense, and only five minutes later it disappears. At the second attempt to walk the same symptoms reappear, and so on.

In testing for other sensations we find that pinching and rubbing are extremely painful. The thermic sensations are normal. The temperature of the diseased thigh is decidedly inferior to that of the opposite side. The mechanical and quantitative electrical reactions are exaggerated, but the qualitative is normal. There is a difference in the size of both thighs of 3 cm. When one attempts to extend the thigh and the leg, the pain is intense and is followed in a few minutes by marked numbness.

Examination of the superficial and deep layers reveals nothing abnormal. There is no pain in the region of the sciatic nerve, or in the hip joint, which is movable in every direction.

The examination of the spine and the pelvis gives negative results. There is no hernia. The patient has general varices, most marked on the legs. The reflexes are normal, except the cremasteric, which is absent. The femoral, popliteal, and dorsalis pedis arteries beat normally. The intelligence is depressed, and so are the entire nervous and muscular systems, and, as I said before, the patient is distinctly neurasthenic. The visual field is normal, and so are the pupils. There are no hysterical stigmata. The arteries, heart, and lungs are normal. The patient appears to be anæmic and suffers from dyspepsia and constipation.

The case presents several atypical features which warrant me in publishing it. If the syndrome meralgia paræsthetica is the result of some functional or pathological change in the external cutaneous nerve, there are, nevertheless, cases in which the same symptoms, pain and paræsthesia, go beyond the zone of distribution of that nerve; also there are some, if not the majority, in which only one branch of it is affected, some in which other phenomena are associated with it, and, finally, some so-called pseudo-meralgias, in which the underlying cause is not in that nerve.

This case is one in which, besides the anterior branch, the posterior also is affected, in which one or two cutaneous branches of the anterior crural nerve are involved, and to which there is added a new phenomenon called intermittent lameness. This last, known under the French name of *claudication intermittente,* was first described by Charcot[*] in 1856 and by Goldflam[†] in 1895. The patient affected with this disease, while seated, can freely move his legs and feet and has no pain. As soon as he begins to walk, the characteristic symptoms appear. At the beginning there is nothing abnormal, a few minutes later pain sets in in the calves of both legs, which pain rapidly becomes intense. The legs become numb and the muscles contracted, walking is difficult, and the patient is compelled to sit down. Then the paroxysm gradually disappears. This phenomenon has been observed in horses by Bouley in France and Hertwig in Germany. The pathogeny of this phenomenon was explained by Charcot, as the autopsies had proved it, as due to obliteration or constriction of the arteries in the affected limbs. The arteries in generalized arteriosclerosis are sufficiently supplied with blood in a state of rest, but they are insufficiently supplied in a state of activity; hence the symptoms in walking.

In this case the intermittent lameness is clinically the exact reproduction of Charcot's type, but the ætiological factor is different, as the lameness from arterial stenosis is found only in aged people with atheromatous arteries or a history of syphilis.

The other atypical symptom observed in my patient, to which I wish to call attention, is the involvement of the crural nerve; whether it is through an anastomosis with the external cutaneous nerve or an independent lesion, I know not, but it is important to state the fact, especially when surgical intervention is decided upon. The third point which I should like to mention is that the disease in question occurred during convalescence from typhoid fever. Although cases with typhoid infection have been reported, they are, nevertheless, very few. I have been able to find only four on record: two by Bernhardt,[*] one by Sabrazès,[†] and one by Devic.[‡]

The fourth and the last peculiarity in my case is that the posterior branch of the external cutaneous nerve is involved. In reading up the histories of the cases reported by various authors, I have found very few with involvement of the posterior branch.

Summing up the case, we see that the whole external cutaneous nerve, with both its branches, is affected, as are also the cutaneous branches of the crural nerve. As to the intermittent lameness, it resembles clinically the description given by Charcot and to some extent that of Goldflam, but we have here neither advanced age with atheromatous arteries and syphilis, nor a history of tobacco poisoning and alcoholism, as in Goldflam's type. This lameness cannot be attributed to coxalgia; the steadiness of the lameness, the seat of the pain, the lumbar lordosis, the fixed position of the pelvis in coxalgia, will decide the diagnosis. My case could not be taken for sciatic neuralgia, which has its localization in a special place and is characterized by pain when the thigh is flexed on the pelvis, while in meralgia paræsthetica the pain is pronounced when the thigh is extended. In neuralgia of the anterior crural nerve the pain is along the internal surface of the thigh, at the level of the internal malleolus, and at the base of the great toe. In my case there is a partial neuralgia of the anterior crural nerve, which could probably be explained as due to an anastomosis between the external cutaneous and the anterior crural nerves. Verhoogen[*] and Escat[†] report similar cases. Hysteria might simulate the syndrome, but my patient has not a single hysterical stigma.

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[*] *Bulletin médical,* 1891.

[†] *Deutsche medicinische Wochenschrift,* 1895.

[*] *Neurologisches Centralblatt,* 1895.

[†] *Revue de médecine,* 1897. [‡] *Province médicale,* 1895.

Our investigation went on to ascertain whether it was not a case of reflex neurosis. Neuralgias in connection with intestinal disturbances are not rare. Norman Bridge[‡] reports examples. But there we find also pain in the perinæum, the urethra, and the neck of the bladder. La Dentu[§] has observed a case of injury of the obturator nerve which gave also the syndrome of meralgia paræsthetica. In cases of retention of urine there is pain in the anterior and posterior surfaces of the thighs, but it is usually bilateral.[‖] Chipault reports a case of cauterization of the cervix uteri with reflex meralgia.

The diagnosis must be made also from the pseudo-meralgias, to which Chipault[¶] called attention. He reports a case in which the first, second, and third lumbar roots were affected subsequently to a fall on the back; the spinous processes of the vertebræ were painful on pressure; on the right thigh the antero-external surface affected reached internally to the scrotum and posteriorly to the buttocks; on the left the posterior superior spine of the ilium was sensitive. The second case was a pseudo-meralgia combined with tabes, but there was rather hypæsthesia than paræsthesia. Souques[**] reports a case of pseudo-meralgia due to diseased roots, with a complication of aphasia but preservation of power of singing. Having made the diagnosis by exclusion and having noted the possibility of reflex meralgia or pseudo-meralgia, I arrived at the conclusion, that I had to deal here with a case of complete meralgia paræsthetica affecting both branches of the external cutaneous nerve and one or two cutaneous branches of the anterior crural nerve, and complicated with an intermittent lameness of Charcot's clinical type.

The external cutaneous nerve ordinarily arises from the anterior divisions of the second and third lumbar nerves; then it crosses the outer border of the psoas muscle, cuts perpendicularly the iliacus muscle, to which it is attached by an aponeurosis, leaves the pelvis through the notch beneath the anterior superior spine of the ilium, is placed in the double layer of the fascia lata, and at 2 cm. below the spinous process divides into two branches; one, the posterior, passes through the fascia lata and divides into branches to supply the skin of the buttocks; the anterior branch becomes superficial below Poupart's ligament and innervates the skin of the antero-external surface of the thigh from the greater trochanter as far down as the external condyle. This nerve is, therefore, placed in a muscle indispensable to standing and walking (the psoas) and in a muscle (fascia lata), the contraction of which in walking presses upon it and stretches it. The musculo-aponeurotic relation and the superficial position of the nerve expose it to traumatic injuries, especially in individuals predisposed to painful paræsthesias. A slight neuritis, that perhaps would remain latent in any other territory of the nervous system, is marked in the sphere of the anterior branch of the external cutaneous nerve. My patient had been suffering from generalized varices for a number of years. The passive and active congestion of the vasa nervorum in a neurasthenic suffering from varices and recovering from a debilitating infectious disease is easily apt to give place to the syndrome in question. Even without an inflammatory condition of the nerve, any infection, by itself, is capable of giving rise to neuralgia in a predisposed individual. So it is with syphilis,[*] acute articular rheumatism,[†] influenza,[‡] follicular amygdalitis,[§] intoxication like alcoholism, lead poisoning, constitutional diseases like diabetes, tabes, general paralysis, infantile palsy, and obesity. Among immediate causes we find trauma, exposure to cold, cold douche, pregnancy, fatigue, perityphlitis, and Pott's disease.

From this rapid review of the ætiology we can readily see that it is essential in any given case of meralgia paræsthetica to bear in mind that the coexistence of any infection, any intoxication, or any disease of the nervous system is apt to exercise its influence upon the peripheral nerves, and consequently the general state of health has to be taken into consideration in the first place. As to the local treatment, sulphur baths, massage, and the galvanic current have been advised, but the results have been almost entirely negative. My patient had a course of electrical treatment with no avail, but iodide of potassium internally and daily massage seemed to have the best effect. Nevertheless, I insisted upon surgical intervention, but, unfortunately, the patient declined it. In my opinion, this is the only rational and possible treatment in the majority of cases of genuine meralgia paræsthetica. The brilliant results obtained by Chipault and Mauclaire in France and Wondsbeck in Germany are very encouraging. My patient underwent two operations for varicose veins and had different courses of internal and galvanic treatment, and the result is negative. It is therefore justifiable to go to the origin of the disease; excision of the external cutaneous nerve is the only issue in my case, as well as in any other genuine case of meralgia paræsthetica.

A Hospital for Tuberculous Patients in San Francisco.—Dr. Louis Bazet, a member of the San Francisco board of health, has entered upon a vigorous campaign for the establishment of a separate hospital in San Francisco for the care of patients suffering from tuberculosis.

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[*] *Journal médical de Bruxelles*, 1897.

[†] *Revue de Neurologie*, 1895.

[‡] *Medicine*, 1897. [§] *Gaz. d. hôpit.*, 1874.

[‖] Gray. *N. Y. Med. Jour.*, 1886. [¶] *Revue de neurol.*, 1900.

[**] *Presse méd.*, 1900.

[*] Hirsch, *J. of Nerv. and Ment. Dis.*, 1896; Osler, *ibid.*, 1897; Sabrazès, *loc. cit.*; Bernhardt, *loc. cit.* [†] Sabrazès, *loc. cit.*

[‡] Sabrazès, *loc. cit.* [§] Luzenberger, *Neurol. Centralbl.*, 1896.

Therapeutical Notes.

The Treatment of Blepharitis.—Dr. Walter L. Pyle (*International Medical Magazine,* October) says that a favorite eye lotion with him for this disease is as follows:

℞ Boric acid	40 grains;
Sodium chloride	10 "
Zinc chloride	2 "
Distilled water	4 ounces.

M.

Stain with pyoktanin and doubly filter after standing.

A few drops of this solution are instilled in each eye three times a day.

All scales and crusts should be carefully removed, morning and night. This is sometimes a painful operation, and is accomplished with difficulty in children, but should be thoroughly performed as a *sine qua non* in the treatment. Absorbent cotton sponges moistened with warm water, warm boric-acid solution, or warm bichloride solution, 1 to 5,000, may be used to loosen the accumulated secretions. In the eczematous variety, the bichloride solution not only acts as a detergent, but also has specific curative properties.

If, on removal of the scales and crusts, the skin is only hyperæmic or inflamed, but not excoriated or ulcerated, the lid is ready for an ointment. If there are underlying small ulcers or abscesses in the hair-follicles, these should be cleansed, the cilia epilated, and the cavities painted with a two-per-cent. solution of silver nitrate or lightly touched with a sharp-pointed lunar caustic pencil.

The application of oily and fatty substances facilitates removal of the crusts, prevents further occlusion of the palpebral glands, softens the skin, prevents excoriation by the tears, and affords a vehicle for local medication. Care should be taken not to incorporate in the ointment a large amount of any irritating substance. Dr. Pyle generally uses a mild strength of "the yellow salve of Pagenstecher," as follows:

℞ Yellow mercuric oxide (amorphous)	1 grain:
Vaseline	3 drachms.

Mix thoroughly and put in a collapsible tube in which it will keep fresh and clean.

The Treatment of Pneumonia.—Dr. W. Blair Stewart (*International Medical Magazine,* October) uses the following as a working formula subject to such modification as each case demands:

℞ Tincture of veratrum viride	24 minims;
Wine of antimony	1 drachm;
Ammonium bromide	2½ drachms;
Solution of acetate of ammonium	2½ ounces;
Syrup of lemons . . . q. s. to make	3 ounces.

Sig.: One teaspoonful every hour in water until relief is apparent, then every two hours.

Codeine or tincture of opium may replace the ammonium bromide.

The Treatment of Vomiting from Cough in Phthisis.—Dr. Mathieu (*Revue de Thérapeutique Médico-Chirurgicale,* August 1st; *Treatment,* October) recommends the following for patients who are seized with cough and consequent vomiting after each meal. 1. The swallowing of small pieces of ice—"pilules de glace"—immediately after the meal. This is frequently, but not always, successful. 2. Chloroform water (saturated) is diluted with an equal quantity of water, to prevent any burning sensation, and one or two tablespoonfuls of this solution are taken four or five minutes after the meal. This suffices to arrest the cough in the majority of cases.

Instead of chloroform water, bromoform water, which is less irritating, may be used in the following combination:

℞ Bromoform water	100 grammes (1,500 grains);
Syrup of codeine	30 grammes (450 grains).

3. Menthol is also extremely useful, and may be given in an emulsion with mucilage—15 to 25 centigrammes (2 to 3 grains) to 150 grammes (2,250 grains) of emulsion.

4. If everything else fails, a narcotic may be used, such as hydrochloride of morphine and of cocaine in equal quantities, dissolved in distilled water.

Fersan: A New Remedy for the Treatment of Phthisis.—Dr. Julius Pollak (*Wiener klinische Wochenscrift,* 1900, p. 575; *Treatment,* October) speaks favorably of the employment of a product of fresh ox-blood which has the name of Fersan. The preparation is said to contain the iron, phosphorus, and albuminous substance of the blood-corpuscles. It is soluble in water, does not coagulate with heat, and is nearly tasteless. It appears to pass unchanged through the stomach—the functions of which it therefore does not interfere with—and to be absorbed from the intestine. It is said to be useful in cases of phthisis in which anæmia is a prominent feature, and in which ordinary preparations of iron interfere with the appetite or disturb digestion.

Injections of Cocaine and Silver Nitrate in Gonorrhœa.—Colonel Hamilton, of the Indian medical staff (*Indian Medical Gazette,* September), speaks highly of injections of cocaine, four per cent., followed by a solution of silver nitrate, four grains to the ounce. In three or four days the discharge entirely ceased in cases under his care and the patients were apparently well. The treatment was painless.

Geranium in Dysentery.—According to the *Medical Age* for October 10th the Kaffirs and Zulus of South Africa make use of the root of the geranium, of which there is said to be a number of varieties, all, however, of equal therapeutic efficacy, in the treatment of dysentery. They simply chew the root, but the British army surgeons give it in the form of decoction in milk. The remedy is reported to be a real specific, no failure to cure within thirty-six or forty-eight hours being recorded.

[According to the *National Dispensary,* fifth edition, 1894, a decoction of geranium in milk is used for cholera infantum. The *Geranium maculatum* (cranesbill) is official. It is used also for diarrhœa and hæmorrhages from the rectum.]

The Treatment of Rectal Prolapse in Children.—Hajech, of Milan, according to the *Deutsche Aerzte-Zeitung* for October 1st, recommends the use of ice in the following manner: A tapering piece of ice about three inches long and about an inch in diameter at the thick end is wrapped with iodoform gauze and its point is pressed gently against the centre of the prolapsed mass until it is replaced. This process is perfectly painless. The ice tampon remains in the rectum without the use of any retentive bandage, provided it is pushed in far enough. A fresh piece of ice is to be employed in this way after each movement of the bowels. This treatment soon cures the prolapse. It seems to act by emptying the blood-vessels in heightening the contractility of the rectum.

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MINING COMPANIES AND THE DOCTOR'S DUES.

IN the recent troubles between the coal miners and their employers, one of the sources of complaint appears to have been based upon the compulsory deduction from the men's wages of a certain monthly sum for "the doctor." The fund thus established is supposed to be devoted entirely to the provision of a resident medical attendant, and all such appurtenances of *matériel* and *personnel* as are necessary to enable him to perform his duties efficiently.

At first sight, the provision is a very sensible one. In all dangerous occupations, such as mining, extensive manufacturing works, etc., where serious accidents may occur at any moment, it is obviously as much a matter of humanity to have the preempted services of a medical man as in the case of the army, the navy, or the mercantile marine. The sums deducted from the miner's wages are rarely greater than those willingly subscribed in the various clubs and lodges which, without the same justification as in the case of mining or other hazardous occupation, are forming in such numbers as to constitute a grave economic peril for the profession of medicine. Why, therefore, such bitter opposition to the medical dues should exist among the miners is not, at first sight, self-evident. Mr. John Mitchell, however, shed a sidelight on this mysterious subject in a speech which he delivered in Brooklyn on November 1st. He then stated that in some cases the funds so collected were only partly used for their ostensible object, and affirmed that he knew of a case in which the sum of $20,000 was collected annually in dues from the miners for the services of two doctors and a nurse, who were, however, paid only $4,000 between them, the remaining $16,000 being retained as profit by the company. This is not altogether accurate, we think, inasmuch as the medical fund is generally drawn upon also to provide and maintain a hospital of some sort, and to cover the expenses of drugs, dressings, food for the sick, and the keep of the medical staff. But, even so, if Mr. Mitchell's figures are accurate, there must be a considerable portion of the $20,000 diverted from its legitimate purpose.

We have in mind, however, a specific instance of a certain mining company in California of which the same complaint was made, and justly. There, considerable sums were collected from the men, only a small part of which was disbursed in medical expenses and salaries; and when the matter was discussed between the visiting directors and the physician, who complained of the inadequacy of his salary, the latter was frankly told that the company *ought* to be able to make a profit out of the fund. Further, the physician, in defiance of his contract, was first of all called upon to render his services gratuitously, not only to the miners themselves, but to their wives and families, even including obstetrical cases. And, later, when a small community of camp-followers grew up about the isolated mining camp, and the question arose as to whether the doctor was to be allowed to do private practice among them or not, the first emphatic refusal of the authorities was, on maturer consideration, modified by the decision that, as the company's physician was the only one within reach, "common humanity" demanded that in serious cases his professional skill should be available; wherefore they directed him to undertake the duty of outside practice in the confines of the camp, and to pay over all the receipts to the company, whose servant he was, the authorities reserving to themselves the right to decide "what portion, if any, of the fees should be presented to him" at periodical intervals!

If such sordid and discreditable motives actuate many mining companies, it is not difficult to understand the reason of the miner's complaint. On such terms, it must be difficult to secure really good medical aid; everyone will be dissatisfied; and, in any event, both miner and physician are being defrauded. Far different was the action of another mining company (in Mexico), of which we have heard. There, the company, in order to encourage the men to aid themselves in securing medical assistance, made the generous offer that whatever sum the employees collected among themselves toward securing all necessary *matériel* and *personnel* in provision against sickness or accident, the company would duplicate. A post on the medical staff of that company is not easily to be obtained; and complaints are never heard there about the hardship of having to contribute to "the doctor's fund."

In conclusion, we consider that in all specially hazardous occupations where many employees are engaged, the objections rightly urged against other forms of contract practice do not exist, but that, on the contrary, the maintenance of a medical staff adequate to the requirements should be secured, for the protection of the interests alike of the individual, the community, and the company. But, while the company should secure the maintenance of the fund by deducting the dues from the wages, we do not think that it should have the disbursing of it, but that the entire management of the fund should be left in the hands of a committee of the employees, who should secure their own medical staff and manage the affairs of their own hospital. That was the desire expressed by many of the employees of the California company before referred to, who would, if they could have had their way, have increased to an adequate remuneration the salary of the physician they had at the time, with whom they were, apparently, well satisfied, maintained their hospital, and gradually decreased the dues as the increasing surplus enabled them to do it; and this is actually the system upon which the Mexican mining company referred to has for years conducted its medical service efficiently and with complete satisfaction to all parties concerned.

THE MICHIGAN STATE BOARD OF HEALTH.

We recently chronicled the fact that, at a meeting held on October 12th, the board had passed a resolution requesting its secretary, Dr. Henry B. Baker, of Lansing, to resign his office, and to place his resignation in the hands of the president of the board on or before November 10th, the resignation to take effect on January 1st. The resolution was presented by a member who said that he did so at the unanimous request of all the members present, the president and another member being absent. We added that we hoped Dr. Baker's resignation would not be accepted. It seems now that he has decided not to offer it, but has written to the president, the Hon. Frank Wells, of Lansing, a letter, dated October 29th, in which he gives his reasons for declining to comply with the request.

Dr. Baker says that, however strong may be his sense of the personal injury which the resolution gave rise to, he recognizes the fact that the public interest is paramount to that of any individual. He recounts that he has been the board's executive officer ever since its establishment, over twenty-seven years ago; that, as a member of the board and as its secretary, he has been identified with its methods of acquiring knowledge of matters pertaining to the public health and of spreading that information among the people; that all the active work of the board has been conducted through his office and under his direct supervision; and that the success of this work has been made possible by the thorough accord which has until recently existed between himself and the other members of the board. He calls attention to the fact that there is nothing in the resolution requesting him to resign to show why the request is made, and this omission to give a reason, he says, will naturally lead to the belief among health officers, physicians, and others that his activity has been misdirected, and that the board's methods as carried out by him are radically wrong—in short, that he is guilty of some kind of personal or official misfeasance or malfeasance. His resignation, offered in compliance with such a resolution, would, he thinks, convert that belief into a feeling of certainty which would be detrimental to the board's work. Furthermore, he appeals to correspondence, public expressions, and the records of his office to show that, in the opinion of its members, he has performed the duties of the board's secretary in a satisfactory manner.

We know nothing of the cause or causes that led the members of the board who were present at the meeting of October 12th to request their secretary to resign; consequently we can only deplore the fact that, after all these years of apparently harmonious efforts in the service of the public, discord has now sprung up between so enlightened a board and so zealous and painstaking a secretary. We still hope that the cause of dissension, whatever it may be, is more apparent than real, and that a way will be found to reconcile Dr. Baker and those members of the board who have desired him to resign.

THE MEDICAL MISSIONARY IN CHINA.

One of our most esteemed exchanges, the *China Medical Missionary Journal,* has, as would appear from an editorial in its October issue, somewhat misconstrued an article that appeared in the *Lancet* for June 30th and was copied, with commendation, in our issue for July 21st. In our article we said:

"The *Lancet* for June 30th makes the following trenchant comment in an editorial apropos of the Chinese situation. After naming the Hongkong and Tientsin schools, the only attempts in China at systematic teaching of modern medicine and surgery, which with some little ambulance work constitute all the medical training of the country, save the barbarous mummeries, of which specimens are given, practised by the native physicians, the *Lancet* continues: 'The medical missionaries from Great

Britain and the United States of America have done a great deal of excellent hospital work in China; but it is perhaps unfortunate that the medical work has been accompanied in almost every instance by religious proselytizing. There seems little reason to doubt the fact that the progress of medicine and, what is still more important, the progress of general education and science and even of civilization, have been thwarted by the fact that the students are in most instances tinged with conversion to a new religion. The young Chinese trained in medicine are almost all Christians, and the fact is deterrent to the advance of medical science among the Chinese. We believe that were science to be taught to the Chinese in a purely secular way Christianity might follow, but it seems impossible to civilize the Chinese by means of Christianity. The Japanese have become civilized irrespective of Christianity. Encourage secular Western education, and especially medical science in China, send Chinamen thus trained into every centre and town of China, and a leaven will be introduced and a diffusion of knowledge spread through the length and breadth of China which will in the near future bring many good things in its train—among others, we truly believe, a considerable conversion of Chinamen to Christianity.' We believe the *Lancet's* principles to be sound, but it is a pity that they were not worked upon long ago. The present condition of things seems likely to defer indefinitely the possibility of their inauguration."

The idea of teaching medicine to the Chinese in a secular way appears to strike our Oriental contemporary as savoring of opposition to the work of the Christian missionary, but we do not think the *Lancet* intended to convey any such meaning; had we thought it did, we should not have expressed our approval of its article. There is a difference between the teaching of medicine and its practice. The medical missionary is primarily a Christian missionary, we admit, and it is greatly to his credit that, side by side with his fundamental task of spreading the Gospel, he should practise the humane art of medicine, and even use his skill as an aid in the work of proselytizing. One may concede all this, we maintain, and yet consistently hold the opinion that the teaching of medicine should be dissociated from pure missionary work. At the same time we can see the force of the following statements in the *China Medical Missionary Journal's* article:

"It is undoubtedly the experience of all those who have attempted to do any teaching of medicine in China that the principal difficulty is to find young men who have been sufficiently trained in Western studies to be able to go on advantageously with the study of medicine. There is not so much lack of candidates for medical classes as lack of suitable ones. How this difficulty would have been obviated by having the schools on a purely secular basis, does not seem clear. Again, practically all the training in sciences in China until within a very recent period has been done in mission schools, so that those who have been prepared to study medicine have already been under Christian influence before entering upon their medical studies, and in many cases have joined the Christian Church previously. This being the case, those trained in purely secular schools would have been drawn from mission institutions, unless such schools started out to train boys from the very foundation in science."

THE NON-OPERATIVE TREATMENT OF MASTOID ABSCESS.

We publish this week an interesting observation by Dr. Harrigan, of a case of mastoid abscess, evidently of considerable gravity, in which an operation was not permitted, and perfect recovery took place under simple treatment, the nature of which will be gleaned from a perusal of his article. The upshot of the case is certainly very gratifying, but we think it necessary to utter a word of caution against the adoption of such measures generally. "One swallow does not make a summer"; and the fact that Dr. Harrigan's patient came safely out of danger is not even presumptive evidence, knowing what we do of the terrible gravity of mastoid abscess, that ninety-nine out of a hundred would not succumb to such a condition. Cases of grave appendicular inflammation, to mention only one of many diseases that are universally admitted to demand prompt surgical intervention, have been known to terminate favorably without surgical measures; yet we do not hesitate, on that account, to strongly urge the more promising measure rather than the one that has all the odds against its success. In Dr. Harrigan's case, of course, his procedure was eminently right. He joined in urging the safer measures, but, when they were rejected, he did the best he could, and he is to be felicitated on its successful issue. But, had this experience been our own, we should not feel that it relieved us one whit from the paramount duty of counselling an operation as strongly as ever in the next equally grave case that came under our care. Should operative measures be declined, we should then gladly give this method a further trial; but not otherwise.

SANITARY INSTRUCTION IN THE SCHOOLS.

The duty of the physician does not lie wholly with the sick, for our increasing knowledge of sanitary science imposes upon the physician, particularly in the smaller towns, a certain degree of responsibility for the sanitary condition of the community in which he lives.

The public schools offer an excellent medium for conveying to the general public a knowledge of the principles of sanitation, and we are pleased to note that this fact is being more and more widely appreciated from year to year. The institution of a series of "health talks," as they are aptly termed, in some of the public schools must be productive of good if the lectures are along proper lines and if the lecturers are careful to refrain from treating subjects which come within the sphere of the physician rather than that of the sanitarian. An excellent programme for a series of health talks in one of the smaller towns of this State has recently come to our attention. This list embraces "talks" on the following subjects: "The Care and Use of the Eyes," "Don't," "The Care of the Sick," "The Care of the Teeth," "Contagious Diseases," and "The Eye, Ear, Nose, and Throat." The injection into the programme of a talk on "reparative surgery" seems rather ill advised, although it is possible that even upon a subject which is so purely technical as this an apt and well-balanced lecturer might deliver an interesting and instructive discourse. Where such courses have not already been instituted, public-spirited physicians might well canvass the possibility of arranging for a series of popular lectures somewhat after the fashion mentioned.

SMALL-POX IN THE WEST.

The fact that during the week ending November 2d ten cases of small-pox were reported to the surgeon-general of the Marine-Hospital Service from Ouray County, Colorado; twenty-one from Maple River Township, Michigan, and twenty-seven from Cleveland, Ohio, emphasizes the need of constant activity in the work of vaccination, but ought not to create alarm, at least in Cleveland, a city that well knows how to cope with such a situation.

THE EXHIBIT AT THE ST. PAUL MEETING OF THE AMERICAN MEDICAL ASSOCIATION.

By the courtesy of the *St. Paul Medical Journal* we have received an advance proof of an article for its November number calling attention to the fact that certain exhibits considered unethical have in the past figured in the displays made in connection with the association's meetings, and giving the assurance that the exhibits at next year's meeting, in St. Paul, will be carefully scrutinized by a committee, and all products deemed objectionable will be rigidly excluded. Nothing will be exhibited that cannot be advertised in the association's own *Journal* and in other reputable journals.

NEW MEDICAL JOURNALS.

The first number of the *New Zealand Medical Journal,* dated August, has reached us. It is an octavo of sixty-six pages of reading matter. We find the contents excellent in quality and well presented in the matters of printing, etc. It is edited by Mr. J. Malcolm Mason and published in Wellington by the New Zealand Branch of the British Medical Association. Two other new journals that cover about the same ground are the *Journal of Physical Therapeutics,* a monthly published in London, and the *Revue internationale de thérapie physique,* a semi-monthly edited in Rome, printed in the French language, and published in Turin. Another new monthly, one that should prove of particular interest to American physicians at the present time, inasmuch as it emanates from a country whose independence we are engaged in establishing, is the *Revista de la Asociación Médico-farmacéutica de la Isla de Cuba,* published in Havana.

News Items.

Society Meetings for the Coming Week:

Monday, *November 12th:* New York Academy of Medicine (Section in General Surgery); New York Academy of Sciences (Section in Chemistry and Technology); New York Medico-historical Society (private); New York Ophthalmological Society (private); Lenox Medical and Surgical Society, New York (private); Harlem Medical Association of the City of New York; Gynæcological Society of Boston; Burlington, Vermont, Medical and Surgical Club; Norwalk, Connecticut, Medical Society.

Tuesday, *November 13th:* New York Academy of Medicine (Section in Genito-urinary Surgery); New York Medical Union (private); New York Obstetrical Society (private); Buffalo Academy of Medicine (Section in Medicine); Kings County, New York, Medical Association; Rome, New York, Medical Society; Medical Societies of the Counties of Camden (semi-annual, Camden) and Rensselaer, New York; Norfolk, Massachusettts, District Medical Society (Hyde Park); Newark (private) and Trenton, New Jersey, Medical Associations; Clinical Society of the Elizabeth, New Jersey, General Hospital and Dispensary; Northwestern Medical Society of Philadelphia; Practitioners' Club, Richmond, Kentucky; Richmond, Virginia, Academy of Medicine and Surgery.

Wednesday, *November 14th:* New York Pathological Society; New York Surgical Society; American Microscopical Society of the City of New York; Society of the Alumni of the City (Charity) Hospital; Society for Medical Progress, New York; Medical Societies of the Counties of Albany and Allegany (quarterly), New York; Pittsfield, Massachusetts, Medical Association (private); Philadelphia County Medical Society.

Thursday, *November 15th:* New York Academy of Medicine; Brooklyn Surgical Society; New Bedford, Massachusetts, Society for Medical Improvement (private); Medical Society of City Hospital Alumni, St. Louis; Atlanta Society of Medicine.

Friday, *November 16th:* New York Academy of Medicine (Section in Orthopædic Surgery); Clinical Society of the New York Post-graduate Medical School and Hospital; Baltimore Clinical Society; Chicago Gynæcological Society.

The Late Dr. Samuel S. Purple.—The president and fellows of the New York Academy of Medicine hereby express their high estimate of the character of the late Dr. Purple as a citizen and a physician, their earnest appreciation of his valuable services as a fellow and an officer of the Academy, and their grateful acknowledgment for rare books and pamphlets presented by him in large numbers to the library, of which he was the founder. They earnestly desire to extend to the members of his bereaved family their profoundest sympathy in this, the hour of their sad affliction.

[*Signed*] William H. Thomson, M. D.,
President.
Louis F. Bishop, M. D.,
Secretary.

Physicians with Charmed Lives.—According to the *Medical Fortnightly* for October 25th, not a single Galveston physician perished out of the thousands of lives lost in the terrible disaster there.

Licensed as Physicians in Minnesota.—The papers of forty-five applicants to practise medicine in Minnesota were recently examined by the State medical board, and thirty-two were accepted. Those who passed were: James Leo Lynch, Wiscoy, Winona county; James F. Lynn, Waseca, Minn.; Harvey Smith, St. Paul; Lewis MacKenzie, Minneapolis; William D. Beadle, Caledonia, Minn.; George J. Gordon, Minneapolis; Hugh P. Ross, Moorhead, Minn.; Emanuel O. McDonald, Moorhead, Minn.; Gilbert G. Cottam, Rock Rapids, Iowa; Josephine Bingham, Minneapolis; Wendell B. Grinnell, Fredonia, Wis.; William A. Coventry, Brainerd, Minn.; Amy Kindborg, La Crosse, Wis.; Clarence W. Taylor, Two Harbors, Minn.; Robert H. Ray, Walnut Grove, Minn.; Harold Rees, Spring Grove, Minn.; George Tupper, Tracy, Minn.; Robert Williams, Alden, Minn.; Alonzo B. Kirk, Hibbing, Minn.; Benjamin F. Simon, St. Paul; Frances G. Swedenburg, Martell, Wis.; James Hynes, Minneapolis; James W. Andrist, West Concord, Minn.; George W. Bliss, Valley Springs, S. D.; Jacob F. Avery, Virginia, Minn.; Emory E. Stover, Sibley, Iowa; Emil Weschske, New Ulm, Minn.; Harry W. Morcom, Virginia, Minn.; Douglas F. Wood, Hanska, Minn.; Charles A. Gill, La Crosse, Wis.; Charles H. Payette, St. Paul.

Reorganization of the Michigan State Medical Society.—At a recent meeting of the Detroit Medical Society a committee of three was appointed, consisting of Dr. Carstens, Dr. Inglis, and Dr. Goux, to consider the contemplated reorganization of the Michigan State Medical Society.

To Build a Laboratory for the Study of Bubonic Plague.—The Morris Building Co. has been awarded the contract for the building of the laboratory for the study of bubonic plague germs on the Willard Parker Hospital grounds in this city. The bid of the Morris Co., the only one received, was for $19,893. The laboratory is to be built in three months.

Resolutions on the Death of Dr. Moses White.—A special meeting of the New Haven Medical Association was held on October 26th for the purpose of adopting resolutions of regret on the recent death of Dr. Moses C. White, of that city.

A Popular Sanatorium for Tuberculosis in Italy.—The *British Medical Journal* for September 29th says that the Italian Minister of the Interior by decree dated February 3, 1900, invited competition for a plan of a sanatorium for poor tuberculous patients. He has recently nominated a committee to examine the plans. It includes the names of Professor Bizzozero, of the University of Turin; Professor Durante, of Rome; Professor A. de Giovanni, of Padua, and Professor A. Ballori, director of the hospitals of Rome, besides those of several well-known architects and engineers.

Faculty Banquets a San Francisco Professor.—Dr. R. Beverly Cole, coroner at San Francisco, was entertained at a banquet in his honor recently in the University Club by the faculty of the Medical Department of the University of California. Dr. Cole was for many years professor in the medical department, and the faculty has decided to lighten his work, owing to ill-health. He has been appointed Emeritus Professor of Obstetrics and Gynæcology. After the banquet Dr. Cole was presented with a handsome testimonial in recognition of his services. It consisted of a beautifully engraved silver plate.

Wisconsin School for Nurses Lacks Public Support.—At the commencement exercises of the Wisconsin Training School for Nurses, at Milwaukee, recently, the president, Mrs. E. P. Allis, announced that, because of lack of support, the school would close in November, 1901, when the present student nurses had completed their courses. The school was opened November 2, 1888, and the first trained nurses in the State of Wisconsin graduated from it.

Diphtheria and Scarlet Fever Close Schools.—Diphtheria and scarlet fever are playing havoc with the schools of Arapahoe county, Col. Forty-five cases of scarlet fever and ten of diphtheria in the city of Denver alone are reported, not counting the many suburban towns. Three cases of diphtheria are reported from the Cheltenham school, and others from the Bryant school. In Globeville the conditions are worst. Diphtheria is epidemic among the children and they have been allowed to attend school and spread the contagion until half the children in the town have been exposed. Several deaths have occurred and the county physician has started an investigation which has resulted in the schools being closed and a warning issued to the people to keep their children isolated.

Memorial Service of the Kings County Medical Society.—A memorial service in commemoration of those members who had died during the past year was held in the library of the Kings County (Brooklyn) Medical Society on November 4th. The services consisted of brief addresses of a biographical nature. Dr. Homer L. Bartlett pronounced a eulogy on Dr. John Campbell Shaw; Dr. Joshua M. Van Cott on Dr. Charles E. West; Dr. Joseph H. Hunt on Dr. John Cooper; Dr. William Schroeder on Dr. Aaron E. Peck and Dr. Robert F. Cunnion; Dr. Stuart H. Brenton on Dr. Henry Dwight Bliss; Dr. George R. Fowler on Dr. Landon Carter Gray; Dr. Silas H. Bartley on Dr. William Webb Browning; Dr. Edgar A. Day on Dr. Frank Stephen Milbury; Dr. Jacob Fules on Dr. Julius C. Rappold; and Dr. Joseph H. Raymond on Dr. I. J. C. Skene. The tribute paid by Dr. Raymond to the memory of Dr. Skene was most eloquent and dwelt largely upon the admirable personal qualities which would have made Dr. Skene a man of distinction in any walk in life.

The Medical Society of the County of New York.—At the ninety-fifth annual meeting, held on Monday evening, October 22d, officers for the ensuing year were elected as follows: President, Dr. George B. Fowler; vice-presidents, Dr. Charles N. Dowd, and Dr. Irving S. Haynes; secretary, Dr. John Van Doren Young; assistant secretary, Dr. Fred Palmer Solley; treasurer, Dr. John S. Warren; censors, Dr. Frank Van Fleet, Dr. Henry S. Stearns, Dr. Wendell C. Phillips, Dr. Robert Lewis, and Dr. Louis A. Rodenstein.

Oklahoma Territorial Medical Association.—The Oklahoma Territorial Medical Association held its eighth annual meeting at Oklahoma City on November 8th. At the meeting, papers were read by Dr. L. Haynes Buxton, of Oklahoma City, on The Successful Physician; Dr. R. W. Thompson, of Fort Worth, Texas, on Mastoid Operations; Dr. A. L. Blesh, of Guthrie, on The Yesterday, To-day and To-morrow of Surgical Operations; Dr. James F. Hale, of Dickson, on Surgery; Dr. L. T. Smith, of Lexington, on The Abortive Treatment of Typhoid Fever; Dr. J. F. Messenbaugh, of Oklahoma City, on Chorea; Dr. D. W. Griffin, of Norman, on Meningitis; Dr. H. Fagaines, of Chandler, on Diagnosis and Symptoms; Dr. C. B. Bradford, of Oklahoma City, on Fever—What it is and How Shall We Treat It?; Dr. J. J. Evans, of Stroud, on Nausea and Vomiting in Pregnancy; Dr. S. E. Knight, of Enid, on Obstetrics; Dr. F. L. Winkler, of Kingfisher, on Conjunctivitis; Dr. C. D. Arnold, of El Reno, on Criminal Abortion and its Jurisprudence; Dr. B. F. Nesbitt, of Eason, on Sanitation; Dr. Eunice B. Hamill, of Guthrie, on Physical Defects of School Children; Dr. Lea A. Riley, of Oklahoma City, on Pædiatrics; Dr. Geo. M. Cole, Jr., of Springfield, Mo., on Radiographs.

The Medical Society of the State of New York.—The preliminary announcement states that the ninety-fifth annual meeting will be held in Albany on January 29, 30, and 31, 1900. "The meetings of the society," says the announcement, "have always been replete in scientific work, as becomes the representative society of the medical profession of the Empire State, and it is confidently expected that this meeting will equal those which have preceded it. This circular letter is sent to every member of the society, with the request that those who desire to read papers will communicate at once with the chairman of the business committee, Dr. Frank Van Fleet, 63 East Seventy-ninth street, New York, or with the president, Dr. A. M. Phelps, 62 East Thirty-fourth street, giving the title of the paper and such other information as the author desires. As there will be a great many papers offered, and the time necessarily limited, it is suggested that papers be condensed as much as possible in reading, as they can be published more fully in the *Transactions*. Arrangements for reduced fares can be made when purchasing railroad tickets."

Infectious Diseases in New York.—We are indebted to the Sanitary Bureau of the Health Department for the following statement of cases and deaths reported for the two weeks ending November 3, 1900:

DISEASES	Week end'g Oct. 27.		Week end'g Nov. 3.	
	Cases.	Deaths.	Cases.	Deaths.
Typhoid fever	140	32	105	23
Scarlet fever	90	5	101	0
Cerebro-spinal meningitis	0	6	0	2
Measles	46	4	47	1
Diphtheria	226	37	215	25
Tuberculosis	237	160	215	131
Laryngeal diphtheria (croup)	9	4	11	4
Varicella	2	0	0	0

Marine-Hospital Service.—*Official List of the Changes of Station and Duties of Commissioned and Non-Commissioned Officers of the United States Marine-Hospital Service for the Seven Days ending October 25, 1900:*

BAILHACHE, PRESTON H., Surgeon. To proceed to the Purveying Depot, New York, N. Y., as Inspector. October 20, 1900.

GASSAWAY, J. M., Surgeon. Two days' leave from October 19, 1900, under paragraph 179, Regulations.

STONER, G. W., Surgeon. Three days' leave of absence granted October 16, amended so that said leave shall be for two days only.

COFER, L. E., Assistant Surgeon. To proceed to Philadelphia, Pa., and report to the medical officer in command for temporary duty.

FOX, CARROLL, Assistant Surgeon. To proceed to Portland, Oregon, and assume command of the service.

BEAN, L. C., Acting Assistant Surgeon. Granted leave of absence for two days.

GREGORY, G. A., Acting Assistant Surgeon. Granted leave of absence for seven days.

GAHN, H., Hospital Steward and Chemist. Granted leave of absence for twenty days from November 12.

ROEHRIG, A. M., Temporary Hospital Steward and Assistant Chemist. Relieved from duty at San Francisco, Cal., and directed to proceed to the Immigration Depot, New York, reporting to Surgeon L. L. Williams for duty.

SCHLAAR, W. F., Hospital Steward. Upon being relieved by Temporary Hospital Steward and Assistant Chemist A. M. Roehrig, to proceed to Washington, D. C., and report at Bureau for duty.

Changes for the Seven Days Ending November 1, 1900.

NYDEGGER, J. A., Passed Assistant Surgeon. Relieved from duty in the Philippine Islands, and directed to return to the United States at once. October 31, 1900.

COFER, L. E., Assistant Surgeon. Relieved from temporary duty at Philadelphia, Pa., and directed to proceed to Washington, D. C., for examination for promotion. November 1, 1900.

CORPUT, G. M., Assistant Surgeon. To proceed to Cairo, Ill., and assume temporary charge during absence of medical officer. November 1, 1900.

KING, W. W., Assistant Surgeon. To proceed to San Juan, P. R., on special temporary duty. October 26, 1900.

HOLT, J. M., Assistant Surgeon. Granted leave of absence for seven days. November 1, 1900.

BOGGESS, J. S., Assistant Surgeon. Relieved from duty at Chicago, Ill., and directed to proceed to Philadelphia, Pa., and report to medical officer in command for duty. November 1, 1900.

GOLDSBOROUGH, B. W., Acting Assistant Surgeon. Granted leave of absence for four days. October 27, 1900.

Naval Intelligence.—*Official List of Changes in the Medical Corps of the United States Navy for the Week ending October 27, 1900:*

MORGAN, D. H., Passed Assistant Surgeon. Commissioned passed Assistant Surgeon from November 27, 1899.

LEDBETTER, R. E., Assistant Surgeon. Appointed Assistant Surgeon from October 19, 1900.

Changes for the Week Ending November 3, 1900.

MCCORMICK, A. M. D., Surgeon. Commissioned Surgeon from November 11, 1899.

LEDBETTER, R. E., Assistant Surgeon. Ordered to the *Constellation*.

BIDDLE, C., Surgeon. Detached from the *Texas*, when put out of commission, and ordered home to await orders.

WHITE, C. H., Medical Director. Detached from the Naval Museum of Hygiene, Washington, on reporting of relief, and ordered home to await orders.

BRADLEY, G. P., Medical Inspector. Ordered to duty in charge of the Naval Museum of Hygiene, Washington, November 15.

AMES, H. E., Surgeon. Detached from the *Kearsarge* and ordered to the *Massachusetts*.

Dr. Senn Presents $50,000 to Rush Medical College.—Dr. Nicholas Senn has given $50,000 to the Rush Medical College to help to defray the expenses incurred by the addition of a new hall, to be used mainly for clerical purposes. The estimated cost of the building, which is to be called Senn Hall, is $80,000.

Hospital Appointments.—Dr. Thomas Maskin, of Wilkesbarre, Pa., and Dr. G. E. Newby, of Elizabeth City, N. J., have been appointed resident physicians at St. Joseph's Hospital of Reading, Pa.——At a meeting of the board of managers of the Pennsylvania Hospital, recently held in Philadelphia, Dr. Alfred Stengel was elected visiting physician to succeed the late Dr. Da Costa.

Hospital Staff Changes.—At the Childs' Hospital, Albany, N. Y., Dr. A. H. Travers has been promoted from assistant attending surgeon to attending surgeon. Dr. Charles E. Davis and Dr. A. W. Elting were added as attending surgeons, and Dr. A. MacFarlane and Dr. H. L. K. Shaw were added as attending physicians. The staff for the coming year is as follows: Dr. T. M. Trego, Dr. Henry Hun, Dr. H. Van Rensselaer, Dr. Andrew MacFarlane, and Dr. H. L. K. Shaw, attending physicians; Dr. S. R. Morrow, Dr. A. H. Traver, Dr. C. E. Davis, and Dr. A. W. Elting, attending surgeons; Dr. C. S. Merrill and Dr. C. H. Moore, ophthalmic surgeons; Dr. Clement Theisen, laryngologist and rhinologist; Dr. George Blumer, pathologist.—Dr. Charles Crance, who has been assistant surgeon at the soldiers' home at Bath, N. Y., has taken a position as interne at the Buffalo general hospital.—Dr. Dorsett and Dr. Taylor have succeeded Dr. Butler and Dr. Bertollet in the dispensary work at St. Joseph's Hospital, Philadelphia, the latter physicians having been transferred to another department.

Hospital Buildings and Endowments.—The plans submitted for the new building of the State hospital at Rochester, N. Y., by the State architect, have been formally approved, and work will be commenced on them at once. The structure will be of brick and will accommodate some 500 patients.—As the plans submitted by the architect for the new hospital building on the Erie county, N. Y., almshouse farm, provided for buildings costing $107,200, the board of supervisors have hesitated to make such an outlay. Dr. William H. Heath, of the department of health, has suggested radical changes and economies which will make it possible to erect the structure for about $50,000, a sum which there will be no difficulty in obtaining.—The Wisconsin general hospital at Milwaukee is to be removed some time the latter part of this month to the hospital on Farwell avenue formerly occupied by Dr. Brown, and later used as a sanitarium.—A hospital is to be erected at Adrian, Mich., by the county superintendents of the poor.—The Rochester, N. Y., city hospital and the Infants' Summer Hospital are beneficiaries under the will of the late H. Frances McVeau.—By the will of the late Louisa C. Morse, of Rochester, a legacy of $3,000 is left to the Rochester city hospital as a memorial to Henry Morse, her husband.—Sharon Sanitarium at Sharon, Mass., recently celebrated the opening of its new buildings, built with a bequest of $20,000 from T. T. Wyman, of South Boston, by a reception attended by many physicians and others interested in the fresh-air treatment of incipient pulmonary disease. The new buildings consist of a two-story wing to the main building, erected some nine years ago, and a cottage having accommodation for the matron and for a resident physician. The new wing will more than double the capacity of the sanitarium.—The new South Chicago Hospital was opened recently with a reception by the hospital staff, followed by a public reception.—A new Polish hospital, St. Mary's of Nazareth, is to be erected in Chicago. It will occupy an entire block, will cost $250,000, and it is believed will be ready for occupancy by October, 1901.—When the Litchfield County (Conn.) Hospital, now in course of erection, is completed, $40,000 will be conveyed to it by the members of a family largely interested in it. During the life of the donors only the interest of the fund can be used. But after their demise, interest and principal will both be placed at the disposal of the hospital authorities.—An annex is to be added to Pratt Hospital at Amherst, Mass., the cost to be defrayed by G. D., H. L., and J. T. Pratt. The present building is much too small for the purposes for which it was intended.—The Berkeley Hospital Association of Berkeley, Cal., will be compelled to select a new site for its proposed hospital, as the residents of the neighborhood in which it was to have been erected have objected vigorously. The building is to be used as a receiving hospital.—A movement is on foot for a hospital at Coney Island, N. Y., and according to the plans of the promoters such an establishment can be ready by the beginning of next season. It is the intention to secure a frame building on West Eighth street formerly occupied by the police. The institution is to be non-sectarian.—The German Benevolent Association of San Francisco is offering the sum of $4,000 in prizes for plans for the new hospital building. The requirements are: The erection on the site of the present hospital of permanent fireproof buildings which, with proper regard to sunlight and ventilation, shall include a medical department, a surgical department, a woman's department and an operating department. These departments, or wards, must provide ample accommodation for 168 patients, quarters for the surgeons, doctors, nurses, and attendants; a morgue and a contagious diseases hospital large enough for the care of twenty-four patients. To carry out this programme the committee estimate an outlay of from $200,000 to $250,000.—The Mt. Sinai Hospital of this city has received a bequest of $500 under the terms of the will of Mrs. Babet Hornthal, of White Plains.—The board of governors of the fund for the erection of a hospital at Perth Amboy, N. J., have accepted the plans submitted by Architect George K. Parsell. The building will be erected on ground given by Cortlandt Parker, of Newark. It is to be of brick, and is to be so constructed as to permit of additions if required. The cost will be $15,000, of which $10,000 has been collected.—In memory of Dr. W. J. Scott, one of the founders of the Cleveland College of Physicians and Surgeons, who died in 1896, a laboratory, to be called the W. J. Scott Laboratory, is to be equipped and endowed at an estimated cost of $5,000. It will be dedicated in three weeks.

Births, Marriages, and Deaths.

Marriages.

BAYNE—HOLLENBECK.—In Springfield, Mass., on Wednesday, October 24th, Dr. E. D. Bayne to Miss Mina Hollenbeck.

DUNHAM—NORTH.—In Brookline, Mass., Tuesday, October 16th, Dr. F. L. Dunham to Miss Elizabeth North.

FANONI—TAYLOR.—On Thursday, November 1st, Dr. Antonio Fanoni to Miss Bessie Taylor, daughter of Dr. Robert Taylor.

FORD—PRATT.—In Washington, D. C., on Monday, October 29th, Dr. Rowland H. Ford to Miss Osceola Donna Pratt.

FRIEDENWAL—REINHARD.—In Baltimore, Md., on Thursday, October 25th, Dr. J. Friedenwal to Mrs. Esther Lee Reinhard.

GUMBERTS—HOLTZ.—In Rochester, N. Y., on Wednesday, October 24th, Dr. A. R. Gumberts to Miss S. S. Holtz.

HARVEY — OGDEN.— In Washington, D. C., on Wednesday, October 24th, Dr. N. D. Harvey to Miss M. A. Ogden.

HOWELL—BIDDLE.—In Wilmington, Del., on Friday, October 26th, Dr. H. W. Howell to Miss L. G. Biddle.

LUCKETT—MORGAN.—In Washington, D. C., on Thursday, October 25th, Dr. L. Fleet Luckett to Miss Annabella Morgan.

LYON—LATHROP.—In Baltimore, Md., on Wednesday, October 24th, Dr. I. P. Lyon to Miss Kate Lathrop.

MANGUM—PAYNE.—In Washington, D. C., on Wednesday, October 24th, Dr. C. S. Mangum to Miss L. R. Payne.

PHELPS—ATCHINSON.—On Tuesday, October 30th, Dr. F. Van Rensselaer Phelps to Miss Esther Atchinson.

RITTER — LEHMAN.— In Shippensburg, Pa., on Thursday, October 25th, Dr. A. T. Ritter to Miss A. M. Lehman.

ROGERS—MEINHARDT.—In Milwaukee, Wis., on Saturday, October 27th, Dr. Philip F. Rogers to Miss Cornelia N. Meinhardt.

Deaths.

ABBOTT.—In Albion, Mich., on Wednesday, October 24th, Mrs. M., wife of Dr. Abbott.

ELY.—In San Francisco, Cal., on Tuesday, October 23d, Dr. Jonas Ely, in the forty-seventh year of his age.

FERRILL.—In Triadelphia, W. Va., on Monday, October 22d, Dr. A. S. Ferrill.

GREENTREE.—In Baltimore, Md., on Monday, October 29th, Dr. Hiram Greentree, in the seventy-ninth year of his age.

JOHNSON.—In Indianapolis, Ind., on Thursday, October 25th, Dr. Alex. H. Johnson.

KELCH.—In Louisville, Ky., on Tuesday, October 23d, Dr. Allen Kelch, in the forty-second year of his age.

KESTER.—In Ingersoll, Ont., on Monday, October 22d, Dr. Kester.

LATHROP.—In Detroit, Mich., on Wednesday, October 31st, Dr. H. K. Lathrop, in the seventy-seventh year of his age.

McDOWELL.—In Cincinnati, Ohio, on Sunday, October 21st, Dr. Wiley C. McDowell.

McNUTT.—In Bowling Green, Mo., on Friday, October 26th, Dr. James McNutt, in the seventy-first year of his age.

MUEHLECK.—In Philadelphia, Pa., on Thursday, October 25th, Dr. G. A. Muehleck, in the fortieth year of his age.

READ.—In Norriston, Pa., on Thursday, November 1st, Dr. Louis W. Read, in the seventy-second year of his age.

SQUIBB.—In Brooklyn, N. Y., on Friday, October 26th, Dr. E. R. Squibb, in the eighty-first year of his age.

TURNBULL.—In Philadelphia, Pa., on Wednesday, October 24th, Dr. Laurence Turnbull, in the seventy-ninth year of his age.

WHITE.—In New Haven, Conn., on Wednesday, October 24th, Dr. Moses Clark White, in the eighty-first year of his age.

WRIGHT.—In Opelika, Ala., on Thursday, October 25th, Dr. N. L. Wright.

Pith of Current Literature.

Journal of the American Medical Association, November 3, 1900.

Acute Senile Endometritis. By Dr. L. H. Dunning. —Two cases are given. In both cases the lesion found in the uterus was an acute inflammatory process which might properly be called an acute senile endometritis. The characteristic pathologic features are: (1) a thickened endometrium, the free surface of which is devoid of its epithelial layer; (2) increased vascularity with peculiar arrangement of small blood-vessels; (3) small round-celled infiltration; (4) diminished glandular elements; (5) degeneration of the coats of the arteries of the muscular layer of the organ; (6) in not one section examined from various parts of the organ could there be found any increase of connective tissue.

The microscopic appearance but very slightly resembled that of interstitial endometritis. The presence of diseased appendages in both cases, and of mild pelvic peritonitis in one, seems to indicate that the inflammation is prone to extend beyond the limits of the uterus, and if such extension is demonstrable by combined examination, an extirpation of the uterus and appendages is probably the best form of treatment.

Disease of the Falloppian Tubes, with Special Reference to Specific Infection. By Dr. J. R. Guthrie.—The importance of gonorrhœa in causing tubal disease has not been properly emphasized. The question is a serious one, and worthy of our careful investigation.

Tubercular Peritonitis. By Dr. A. H. Cordier.—The author has a theory that an explanation of the cure of these cases from surgical procedure, may be found in the probable production of an antitoxine within the peritonæum, owing to some unknown function of this great lymphatic. "The operation stimulates the peritonæum to an increased activity in the production of an antitubercular toxine." An interesting piece of evidence in support of the author's theory is the fact that we but seldom find a case of primary tuberculous peritonitis with pulmonary complications.

Portable Compressed Air Atomizer. By Dr. George F. Cott.

Æstivo-autumnal Malarial Fever. Some Typical Cases of Quotidian and Tertian Forms, with a Study of the Temperature Curves and of the Parasites Observed in the Blood. By Dr. Charles F. Craig.

Clinical Observations of Malaria as Seen in the Mississippi Delta. By Dr. Frank A. Jones.—The author, who lives in Memphis, Tenn., has succeeded in giving some eminently sensible and practical advice on the subject. He admonishes those gentlemen who are making scientific research in malaria, not to study the Pontine fevers of Rome, or to journey to South Africa to investigate the black-water fever, but to come south to the swamps of Arkansas, Mississippi and Louisiana, where they have malaria in abundance and in all its forms. He calls attention to a condition, seldom mentioned, but which he has frequently observed in hæmoglobinuria—paresis of the bowels. Diarrhœa, in his experience, has been the *exception* and *not* the rule.

Hypertrophy of Pharyngeal Tonsil. Its Anatomy and Physiology. By Dr. Norval H. Pierce.

Connell's Operation of End-to-end Anastomosis of Small Intestine. For Repair of Enterotomy. Performed to Relieve Acute Obstruction. First Case Reported on Human Subject. By Dr. Franklin H. Martin.

Receptive Quiescence of the Stomach during Mastication. Gastronomic Phenomenon not Previously Described. By Dr. Evan O'Neil Kane.

Boston Medical and Surgical Journal, November 1, 1900.

Gunshot Injuries by Rifles of Reduced Calibre. By Dr. Louis A. La Garde.—The experimental evidence showed that the shock from the reduced calibre bullet was always less than that of the larger calibre leaden bullet. The opinion has been generally entertained that the small jacketed bullet would not possess sufficient stopping power to arrest a man when hit. In the Santiago campaign, however, all reports with but few exceptions go to show that men, when hit, fell back at once, and the universal impression was that the Mauser bullet possessed sufficient stopping power for the purposes of war. The subject is treated *in extenso* and some statistics accompany the article.

Purpura Hæmorrhagica, or Morbus Maculosus of Werlhof. By Dr. Stephen Smith Burt.—The author details a case of this infectious disease of early life which is more frequent in the female than in the male. The characteristic ecchymoses in the skin, the mucous membranes, the viscera and the serous membranes, were present, as also more or less profuse hæmorrhage from all the mucous surfaces followed by profound anæmia in which the red blood corpuscles and fibrin-forming elements were rapidly decreased. The patient died toward the evening of the tenth day. The patient was a boy aged eleven years.

Plugging of the nostrils, transfusion, ergot, digitalis, hæmostatics and stimulants, were employed without avail. In fact, the results in this case, as in all virulent forms of purpura hæmorrhagica, were such as to incline one to scepticism as to the value of any and all medication. In very mild cases, however, five minims of ergot subcutaneously has been known to bring relief.

Bacteria and their products very likely play an important part in the production of this disease. Scurvy, if shown to be infectious, may prove to be Werlhof's disease, modified by the surroundings and poor condition of the patient, and also by the possibility of the infection being more chronic.

Eye Strain as a Cause of Gastro-intestinal Neuroses. By Dr. M. P. Smithwick.—The routine examination of children's eyes by oculists at the earliest practicable age is recommended, to guard against the injurious effects of eye strain.

A Note on Rectal Feeding in Peptic Ulcer. By Dr. George G. Sears.

Achlorhydria: Its Effects and their Treatment. By Dr. H. F. Hewes.

Phthisis; Some Causes of Failure in its Climatic Treatment. By Dr. W. Howard Swan.—The author advises us not to send advanced cases to Colorado, unless they can make the change without serious fatigue, and unless they can live there in the manner they should for a *prolonged period.* Most important of all, the invalid should be instructed to rest after his arrival until some one competent to advise him considers it safe for him to exercise; and then he should have his manner of life and hygiene directed from time to time according to his progress and condition.

Medical Record, November 3, 1900.

Modern Quarantine in its Relations to Passengers, Crew, and Cargo. By Dr. Alvah H. Doty.—Contrary to the popular belief, the most careful investigation, from both a scientific and a practical standpoint, has demonstrated that the clothing actually worn by persons in health is not a medium of infection. In an active experience of twenty years, the author has met with but one case that seemed to indicate the contrary. In municipal sanitation, the bare possibility of such transmission should be considered; in marine sanitation, however, such a possibility need receive consideration only when infectious diseases actually exist on the arrival of the vessel in port. This means that we can safely dispense with the disinfection of clothing actually worn by persons in health arriving on vessels from infected ports.

We have equally satisfactory evidence that a ship's cargo does not act as a medium of infection; if exceptions exist, they have not been brought to the attention of the author. From his own experience, the author is convinced that, if a vessel arrives in port and there are no cases of sickness present on arrival and none have occurred in transit, the vessel and its cargo can in no way act as a menace to the public health. An outbreak of infectious disease, when the cause is unknown, is almost always due to the presence of mild, ambulant, or convalescent cases, which have passed unrecognized. The inspection of passengers should be particularly thorough, and the author approves of the departmental rule that all those whose temperature reaches 100° F., or over, should be detained.

Incineration versus Earth Sinks and Chemical Disinfection. By Dr. William G. Bissell.—The late Spanish-American war furnishes the author with statistics which show that, out of 182,687 volunteers, at least 80,300 were totally unfit for duty for a greater or lesser period of time. The facts that typhoid fever was the prevailing disease, and that its mode of transmission is by the ingestion of water or any food substance containing the bacillus of Eberth, would seem to leave but little room for doubt that the earth interment of excrement was directly responsible for the ravages of this fever. Since, by the use of incineration, a positive and infallible destruction of the causes of infection from such sources can be attained, the author is inclined to favor such a mode of ordure disposal in camps. A description of a feasible and portable device for this purpose follows, and the opinions of many authorities in regard to this matter are included in the paper.

Some Cases of Acute Appendicitis. By Dr. Alexander B. Johnson.—Forty cases operated upon within a year are here reported in detail. Among them are some in which recovery took place in spite of extensive involvement of the peritonæum in the inflammatory process. The author's treatment in these latter cases demonstrates the value of abundant saline irrigation of the peritoneal cavity through a moderate incision and without evisceration, in cases of widespread purulent peritonitis.

Philadelphia Medical Journal, November 3, 1900.

Local and Regional Anæsthesia with Cocaine and Other Analgetic Drugs, Including the Subarachnoid Method, as Applied in General Surgical Practice. By Dr. Rudolph Matas.—In regard to the subarachnoid method, the author would limit the indications for its applications at the present moment (1) to adults and to reasonable persons who have good self-control, thereby excluding children, hysterical patients, and the insane; (2) to patients in whom the methods of local or regional anæsthesia are inapplicable; (3) to patients suffering from emphysema, advanced asthma, chronic bronchitis, and other respiratory affections, in whom a general inhalation anæsthesia is absolutely contraindicated—in advanced cardiac cases with degenerative lesions, he would fear the possible effects of the injection and excitement on the circulation; (4) in the majority of cases in which the painful part of the operation is not likely to be prolonged beyond an hour and a half, he would be averse, in the present state of our knowledge, to repeat the cocainization, or to increase the total dose of the cocaine to more than two centigrammes ($\frac{30}{100}$ of a grain), especially in exhausted subjects.

The danger of repeating the intradural injections to prolong the anæsthesia is one of the objections to the use of the method in ordinary labor. This article is of great interest at the present moment, and is very exhaustive in its treatment of the subject.

Cocaine Analgesia from Subarachnoid Spinal Infection, with a Report of Forty-four Cases, together with a Report of a Case in which Antipyrine was Used. By Dr. George Ryerson Fowler.—The case in which antipyrine was injected was that of an Italian woman, aged twenty-five years, operated on by curettage for endometritis. Thirty minims of a two-per-cent solution of antipyrine were injected, and analgesia was apparently established in five minutes to the level of the nipples. The symptoms during and after the operation were the same as those in connection with spinal cocainization.

Intraspinal Cocainization for Surgical Anæsthesia. By Dr. S. Ormond Goldman.—The author prefers to the platino-iridium needles a gold needle with a very abrupt bevel.

Analgesia in Obstetrics Produced by Medullary Injections of Cocaine. By Dr. S. Marx.

Anæsthesia in Children with Adenoids, and in the Adenoid Operation, with Special Reference to the Dangers of Chloroform in Children of the Lymphatic Diathesis. By Dr. T. H. Halsted.

Large Scrotal Hernia; Operation for Radical Cure under Spinal Anæsthesia with Eucaine; Aluminum Bronze Wire used for Buried Sutures; Operative Recovery; Death from Exhaustion and Urinary Sepsis. By Dr. W. W. Keen.

Anæsthesia by Cocainization of the Spinal Cord. By Dr. George G. Hopkins.

Subarachnoidean Injections of Cocaine as a Substitute for General Anæsthesia in Operations below the Diaphragm, with Report of Seven Cases. By Dr. Edward Wallace Lee.

Two Cases of Medullary Narcosis. By Dr. W. L. Rodman.

Cocaine Anæsthesia of the Spinal Cord. By Dr. Ernest Laplace.

Subarachnoid Injections of Cocaine as a Substitute for General Anæsthesia. By Dr. A. M. Phelps.—The author was present at the discussions in Paris, last summer, upon this subject. He was favorably impressed until he learned that two deaths had already occurred there this summer from this method of administering cocaine. And now that we are occasionally hearing the mutterings of dissent in the profession on this side of the water, and hearing of a death, or extremely alarming symptoms, he thinks that the profession should take warning.

A Note on the Use of Nitrous Oxide and Ether as an Anæsthetic. By Dr. Thomas R. Brown and Dr. Howard A. Kelly.

Ethyl Bromide in Obstetrics and Gynæcology. By Dr. Wilmer Krusen.

Medical News, November 3, 1900.

Treatment of Puerperal Eclampsia. By Dr. J. B. Killebrew.—After the sixth month, the pregnant woman should be constantly under the observation of her physician, and the urine should frequently be examined for albumin. If it is found, the utmost vigilance should be observed. The appearance of the premonitory symptoms—headache, disturbances of vision, dizziness, epigastric pain, nausea and vomiting—should be reported at once and a course of preventive treatment entered upon. This should consist of (1) absence of excitement; (2) moderate exercise; (3) liquid diet, mainly milk; (4) restriction of albuminous foods; (5) the drinking of large quantities of water; (6) no purging, but the bowels should be kept open; (7) a daily warm bath. The pulse, if hard and tense, may be softened by the administration of nitroglycerin. Normal salt solution, as a prophylactic agent, should be given in high enemata, in quantities varying from one to three pints, once or twice every twenty-four hours. If, after all has been done, the symptoms should grow worse and convulsions come on, these should be controlled with inhalations of chloroform. One of the superficial elbow veins should be opened and normal salt solution injected into the proximal end, while from 12 to 24 ounces of blood should be allowed to flow from the distal end. Then the uterus should be emptied. If this is impossible on account of rigidity, recourse must be had to incisions as advised by Dührssen.

Observations upon the Quartan Malarial Parasite and upon the Staining Reactions of the Tertian, Quartan and Æstivo-autumnal Parasites. By Dr. Charles F. Craig.

Is Living Animal Tissue Capable of Neutralizing the Effects of Strychnine and Venom? An Experimental Study. By Dr. S. J. Meltzer and Dr. G. Langman.—The results of this study seem to demonstrate that constriction of an extremity, even after the removal of the constriction, decidedly lessens the effects of snake poison, and renders innocuous the minimum dose of strychnine that would otherwise prove effective. It would thus appear that the constriction apparently impairs the power of absorption within the constricted part. It seems quite certain that no part of either poison becomes fixed or neutralized by the tissues of the animals experimented upon.

Eye-work in General Practice. By Dr. S. W. S. Toms.

Present Status of Interstate Reciprocity Concerning Licenses to Practise Medicine. By Dr. Emil Amberg.—In answer to a series of questions sent out, the author has received communications from those in authority in nearly all the States and Territories. There is not a single political division which does not express the desire for improvement of the conditions under consideration. A very practicable suggestion of the author's is, that the certificates of medically stronger States be accepted by the weaker States or Territories, without the stronger division accepting the certificates of the weaker division. If we view interstate reciprocity for the license to practise medicine from our standpoint as physicians, as citizens, and as men, we must admit that a more timely and more humane proposition has never been before the medical profession or before the people of the United States.

Lancet, October 27, 1900.

The Forces Opposed to Harvey and His Researches. By Dr. T. C. Allbutt.—The Harveian Oration delivered before the Royal College of Physicians, October 18, 1900.

An Address on Appendicitis. By H. Littlewood, F. R. C. S.—It is more than probable that the presence of scybalous masses or concretions in the appendix is the starting point of a very large proportion of inflammatory processes. In the majority of cases, these masses are formed in the cæcum. The concretion dilates the walls of the appendix and, by preventing the return of blood, produces a venous stasis or an abrasion, with a lowering of the vitality of the parts. Micro-organisms, the second factor, now come into play. The *Bacillus coli communis* and various forms of streptococci and staphylococci are the probable offenders. The author classifies cases of appendicular inflammation as follows: 1. Simple appendicular inflammation (non-suppurative). These may be either acute or chronic (recurrent or relapsing appendicular inflammation). 2. Suppurative appendicular inflammation, in which the contents of the appendicular canal are purulent, and, at one or more places, the walls may be perforated. But in most of these cases, the pus is shut off from the general peritoneal cavity by adhesions. 3. Gangrenous appendicular inflammation, in which the greater part of the appendix may become gangrenous, or a localized patch may form in its walls. These are the cases which may be so rapidly fatal, the patient dying in a short time from general peritonitis. Illustrative cases of the above-mentioned three classes are cited.

Many mistakes may be made in the diagnosis of appendicular inflammation—renal and biliary colic, psoas or iliac abscess, hip-joint disease, and, in women, diseases of the uterine appendages, may be sources of error. The author cites a mistake of his own, where the case proved to be one of encapsuled decomposing ectopic gestation situated in the cæcal region. He urges that where there is no improvement in the patient's condition after forty-eight hours from the onset, operation should be seriously considered. He has never yet regretted operating, but has often regretted that operation was not decided upon earlier.

On the Rôle Played by the Spleen in the Pancreatic Digestion of Proteids. By H. F. Bellamy.—The author reviews the work of Schiff and Herzen upon this subject as follows:

The activity of the pancreatic juice or of an infusion of the gland is not continuous, but intermittent, the maximal activity appearing regularly during the culmination of gastric digestion, some six or eight hours after a meal. Congestion and enlargement of the spleen also takes place, synchronously, with maximal pancreatic digestion. After extirpation of the spleen or when the organ is prevented from dilating by ligature of its hilum, trypsin fails to appear in any considerable quantity in the pancreatic juice or in an infusion of the gland during that stage of digestion in which, in the intact animal, it is normally present. Not only the presence of the spleen, but its congestion is necessary to the abundant formation of trypsin. During the congestion of the spleen, there is produced by "internal secretion" an unknown substance which, carried away by the circulating blood, transforms the inert zymogen already deposited in the pancreas, into active trypsin destined to pass into the secretion of the gland. The influence exercised on the zymogen by this product of the spleen seems to be a condition *sine qua non* for its transformation into trypsin.

Although the organism, as a whole, apparently suffers no disadvantage from removal of the spleen, there is almost complete cessation of proteid digestion by the pancreas, this function being in such cases almost entirely performed by the stomach. The zymogen, excreted as such, becomes gradually transformed into trypsin by oxidation or other agency along the intestinal tract. The stomach and pancreas, in so far as the digestion of proteids is concerned, appear not only to work in perfect unison with one another in the intact organism, but when, through any cause, the one or the other is thrown out of action, its work is assumed and efficiently carried on by the survivor.

Some Remarkable Cases of Sarcoma. By A. M. Sheild, F. R. C. S.—The author reports four cases which forcibly illustrate the extraordinary problems which the different varieties of malignant disease may present. Mistakes are hardly to be avoided, even with the extremes of caution.

Case 1. Sarcoma of the lower third of the thigh with suppuration and abscess formation. The case was looked on as one of simple suppuration, its sarcomatous nature being unrecognized until too late.

Case 2. Sarcomatous ulceration of the toe. Its malignant nature was unrecognized until the development of melanosis of glands in the groin.

Case 3. Sarcoma of the tibia simulating abscess. In this case, the nature of the affection was recognized and amputation of the thigh performed, the patient making a good recovery.

Case 4. Retroperitoneal sarcoma, secondary to a testicular growth. A remarkable feature was the nocturnal rising of the temperature, which averaged 101° F., and sometimes rose to 102° or 103° F.

The Anæmia of Dyspepsia Consequent on Dirt-eating. By A. J. B. Duprey, M. R. C. S.—The author has always connected the disease known as ankylostomiasis with the dirt-eating habit. He has frequently come across coolie patients with gravel hidden on their persons, or actually caught them in the act of eating such dirt; and the craving is so strong that the coolie will actually cry and beg for the dirt which he so much cherishes. This is generally a soft, slate-colored, or grayish stone, which is very much in use among them; or sometimes it is the actual dirt made into cakes, and, not infrequently, rags, paper and coke are eaten. A patient will never reveal that he is a dirt-eater, and very strongly denies the fact. One of the earliest indications of this malnutrition is as follows: If the skin of the face is pinched up between the index finger and thumb, it is felt to be thin, flabby, and lacking in firmness. The disease known as ankylostomiasis is a malnutrition, and not merely an anæmia due to hæmorrhage. The dyspepsia due to dirt-eating is the primary and most important cause, and forms the main point to which efforts at treatment should be directed. The intestinal parasites must not be disregarded, because ridding the host of them is the first step in the treatment. But iron should be administered with great caution, because of the condition of the gastric mucous membrane.

The Differential Diagnosis in General Practice of Plague and Typhoid Fever. By T. Colvin, M. B.—The author's remarks are based upon cases of plague seen in the Glasgow epidemic. Plague differs from typhoid fever in the following points:

1. The onset is commonly sudden, except in the mildest cases of plague; fortunately, buboes are almost always present in mild cases. 2. As a rule the temperature rises rapidly, often reaching its maximum in twenty-four hours. In one case, the morning and evening temperatures were the converse of what would be expected in typhoid fever. 3. Respiratory symptoms. In pneumonic plague one of the earliest symptoms is the dyspnœa, and the sputum is teeming with plague bacilli. Pneumonia only appears in typhoid fever in a later stage of the disease. 4. The nervous symptoms are a marked feature from the outset. 5. There is no rash or mottling of the skin and nothing resembling rose-spots. 6. The occurrence of buboes. (These are only found *post mortem* in the pneumonic and septicæmic forms of plague.) 7. Widal's reaction is absent. (The author looks on this test as an absolutely positive, and almost absolutely negative test, of typhoid fever.)

A Case of Complete Coarctation of the Arch of the Aorta: Necropsy. By Dr. W. L. Dickinson and W. J. Fenton, M. B.—The authors report an instance of the above-mentioned condition occurring in a man aged twenty-nine years. His health had been good until January, 1900, when he had an attack of influenza. After that time he suffered constantly from dyspnœa. The heart was hypertrophied, an aortic diastolic murmur was present, and there was marked pulsation of the arteries of the face and neck. Failure of cardiac compensation was progressive, and the patient died on June 1, 1900. At the necropsy, it was found that at the origin of the subclavian artery, the aorta was contracted until its lumen would barely admit the little finger. Immediately beyond this point, the lumen was suddenly diminished to the size of a goose quill by a sharp ridge which corresponded to a groove on the under surface of the aorta. Between this and the ductus arteriosus, the aorta formed a globular dilatation the size of a small marble, and then became suddenly and completely obliterated, the appearance being as if a ligature were tied around the vessel. The rest of the thoracic and abdominal aorta was narrow and thin-walled, but otherwise healthy. The ductus arteriosus was completely obliterated. The innominate. left carotid, and subclavian arteries were dilated and thickened. It was not possible to completely trace out the anastomotic circulation, but it had partly been carried on by the internal mammary and first four intercostal arteries. The authors believe that aortic coarctation arises shortly after birth from a congenital vice of development affecting that part of the aorta which lies between the origin of the subclavian artery and the junction of the ductus arteriosus, forming the so-called isthmus aortæ. Digitalis failed utterly in the treatment of the case.

A Case of Separation of the Epiphyseal Head of the Femur. By J. J. Clarke, F. R. C. S.—Intra-capsular fracture of the neck of the femur in young persons appears, usually, to be of the nature of a separation of an epiphysis. The author cites the case of a young girl who had fallen in the street five months previously; she was sent to a hospital, but the nature of the case was not recognized at that time. On examination the right leg was markedly everted, and the right great trochanter was displaced upwards. The limb was an inch shorter than its fellow. On the front of the right hip-joint there was a prominence suggesting an anterior dislocation of the head of the femur. Passive adduction was easy, but abduction and flexion were limited and painful. No crepitus was felt. A radiograph clearly showed a break in the neck of the femur. Upon operation, it was found that the separation had taken place exactly in the plane of the epiphyseal cartilage, no trace of which remained. The fragment of the neck which was removed was somewhat sclerosed.

Notes on Cases of Injury by Lightning; One Fatal. By P. E. Hill, M. R. C. S.—On July 27, 1900, a terrific thunderstorm passed over Bulford Camp, Salisbury, whereby one man was killed and fourteen others were simultaneously prostrated by a single flash of lightning. In the fatal case, the injured man did not die for ten minutes after he was struck. The only appearances were slight scorchings on the right thigh and buttock. Cadaveric rigidity was marked.

In many of the cases, the effect upon the nervous system was very marked. Several of the sufferers were very restless and moaned piteously, and so impressed were they with the dread of impending death that great difficulty was experienced in assuring them that they would recover.

British Medical Journal, October 27, 1900.

A Series of Original Articles on the Plague: The Signs and Symptoms of Bubonic, Pneumonic and Septicæmic Plague. By J. Cantlie, F. R. C. S.—All cases of plague can be grouped under three main heads: Bubonic, pneumonic and septicæmic. *Bubonic plague:* In every epidemic at least 70 per cent. of the cases are of the bubonic variety. Contact with persons suffering from plague is the most potent agent in the spread of the disease. In the majority of instances, the plague bacillus finds entrance to the body through the skin. The unbroken skin is uninoculable, but wounds, cracks, bites of insects or the scratching due to parasites, furnish paths of entrance for the bacillus. Infection by way of the intestinal canal and through impact of the sputum of plague patients on the conjunctiva is possible, but infection by the breath is unlikely. The rat is subject to the disease, but it has not yet been determined whether it is attacked prior or subsequently to the appearance of the disease in man. The body parasites of man, as well as those of the rat, absorb the plague bacillus and may transmit it. The average period of incubation is from three to five days. The onset of the disease is sudden: the patient complains of severe headache, weakness, and general muscular pains. A rigor usually precedes severe cases and there may be nausea and vomiting. Diarrhœa is not uncommon. The temperature may rise gradually or it may reach 105° F. soon after the onset. The buboes do not usually appear until the third day. Abrasions of the skin should be searched for, especially in the lower extremities. A rash is uncommon. Adenitis occurs in all varieties of plague. In the bubonic variety, unilateral swelling of a group of glands is the rule, and one gland of the group proceeds to bubo. Tenderness usually precedes apparent enlargement. A femoral gland usually attains the size and shape of a pigeon's egg, but the apparent enlargement is much greater. As the bubo goes on to suppuration, the skin over it becomes dusky and purplish. The patient takes an attitude which relaxes the fascia in the neighborhood of the bubo. The skin does not slough until the eighth or tenth day, when it leaves a large ulcerated surface with undermined edges.

The lips are dry and cracked, and the teeth covered with sardes. The tongue is first covered with a whitish fur; later it becomes black and dry. The liver may be tender and somewhat enlarged. The spleen is invariably swollen. Constipation is the rule after the first day. The pulse rate is rapid throughout. The lungs are seldom affected in the bubonic variety of the disease. The cerebral functions betray early aberration. Delirium may usher in the disease, but usually it does not appear until after the third day. Plague patients may be found walking in the street as if in a dream. Tremors, convulsions, etc., are ordinary features of the disease. Sleeplessness is one of the most distressing symptoms and indicates a serious condition. The temperature remains high for three days; it then falls, to rise again just before the bubo bursts, after which it falls to normal. Apyrexia is uncommon in bubonic plague, but is the rule in *pestis ambulans* and fulminant plague. *Pneumonic plague:* During an epidemic, the deaths from pneumonia multiply *pari passu* with the increase of mortality. It is usually ushered in by a rigor, dyspnœa, cough, a high temperature and marked prostration. The sputum is profuse and at first watery; after twenty-four hours it may be tinged with blood. It teems with plague bacilli. Pneumonic patches appear in the lungs, but the signs and symptoms are peculiarly evanescent; an area consolidated one day may be clear the next. Delirium prevails, but coma supervenes before death. This variety of plague is very fatal, the patient usually dying on the fourth day. *Septicæmic plague:* In this variety, the severity of the onset is such that the patient seems struck down by an active poison. The prostration is extreme from the first. Enlargement of the glands is usually only to be made out *post mortem,* but every gland in the body may be swollen. Hæmorrhages from the nose, bowel or kidney, are not uncommon. Delirium ending in coma and death on the third or fourth day, is the rule. [The article closes with a description of the pathological anatomy of the three varieties of plague.]

Notes on the Introduction of a Case of Plague into the Neighborhood of Cardiff. By Dr. E. Walford.—W. G., a donkeyman on ss. *South Garth,* left Rosario (La Plate) about August 20, 1900. After a voyage of thirty-three days a member of the crew was landed at King's Lynn suffering from "enteric fever." Two days later (September 23d) W. G. left the boat at South Shields in consequence of feeling ill. He went home to Cardiff, reaching there September 27th. He was medically attended until October 2d, when he was admitted to the hospital as a case of plague.

The subsequent course of the disease is described in the next article.

A Case of Plague from a Clinical and Pathological Point of View. By Dr. W. G. Savage and D. A. Fitzgerald, F. R. C. S.—The authors describe the symptoms and physical signs observed in the Cardiff case of plague, the method of making the bacteriological diagnosis, and the findings at the necropsy. Some of the chief points of interest in the case were: (1) the absence of any pain, tenderness or signs of inflammation around the enlarged glands; (2) the presence of the bacilli in the blood in such numbers as to be readily recognizable; (3) the presence of whitish, necrotic areas scattered throughout the substance of the liver; and (4) the red and subsequently necrotic patches on the shins, the so-called carbuncles, which appear to be one of the characteristic features of plague. They contained bacilli which were morphologically identical with the plague bacillus, and they must be ascribed to local action of the bacilli and their toxines. They form a very obvious source of infection of his surroundings by the patient.

The Bacteriology of Plague. By D. C. Rees, M. R. C. S.—After briefly reviewing the history of our knowledge of the plague bacillus, the author goes on to describe its general characters. It resembles somewhat closely the bacillus of chicken cholera, being a small bacillus, measuring from 1 μ to 2 μ in length and from 0.3 μ to 0.5 μ in width. Larger involution forms are often met with. It is non-motile and tends to form short streptococcus-like chains. It stains readily with the ordinary aniline dyes, but is decolorized by Gram. It grows well on all ordinary media, forming a slightly elevated, moist, cream-colored growth. Haffkine has described a highly characteristic appearance in bouillon cultures; a growth appears on the surface which spreads down into the media in the form of long stalactites. Apes and rodents, including rats, mice and guinea pigs, are all highly susceptible to inoculation; sheep, goats, cows and horses, are slightly susceptible, dogs and cats to a less degree; while birds and swine are immune. The plague bacillus does not possess high powers of resistance outside its vertebrate hosts. It is readily killed by direct sunlight, by disinfectants and rapid drying at a high temperature. It is extremely resistant to cold. Inasmuch as the microorganism does not produce spores, and possesses such low powers of resistance, it is improbable that infection takes place through the air; it must take place by close contact. The micro-organism may gain entrance to the body by the skin or mucous membrane, by the respiratory tract, or by the gastro-intestinal canal. In the bubonic form, the bacillus must be looked for in the buboes; in the pneumonic form, in the sputum; in the septicæmic form, in the blood.

The author describes the methods of obtaining material for examination from these three sources. The diluted blood serum from a case of plague is said to cause clumping with plague bacilli; but the reaction does not appear until late in the disease and, hitherto, has proved of no practical value. The bacillus is non-pyogenic; it is present in the blood and causes toxæmia or death without local symptoms. It does not produce pus, but it may cause necrosis of tissue, as in the buboes. Suppuration of a bubo is due to infection with the pyogenic cocci.

Some Practical Notes on the Bacteriological Diagnosis of Human Plague (Pestis Hominis). By Dr. S. Delepine. (*Abstract.*)

On the Methods of Making Antitoxic and Preventive Fluids, with Special Reference to those of Plague. By C. B. Stewart, M. B.—*Haffkine's prophylactic fluid or vaccine.* With respect to plague prophylactics, it is the intracellular poisons of the dead microbes that are mostly concerned in conferring protection, but Haffkine injects also the broth in which they have grown. Since a dead culture alone is used, the prophylactic is in no sense a serum. It is a sterilized culture of the plague microbe in broth.

Yersin's serum. This is used as a curative agent for plague. It also acts as a prophylactic agent, but the immunity conferred by it is of very short duration. It is produced in the same manner as diphtheria antitoxine. A horse is immunized by inoculation at intervals with dead or living cultures of the specific microbe. Such a serum may be bactericidal or antitoxic. To be curative a serum must be both antitoxic and bactericidal.

Lustig's vaccine and serum. This method is based on the observation that a nucleo-proteid, isolated by Lustig from the bodies of plague microbes, has immunizing properties when injected. The bacilli are grown on agar plates, scraped off and dissolved in a solution of caustic potash. The nucleo-proteid is then precipitated by acidifying the solution. It may be used as a prophylactic, or, by injecting it into horses, an antitoxic serum may be obtained. It does not appear to be as efficacious as the serum of Yersin. In 475 cases the recovery percentage was 39.

A Note on the Method of Using Haffkine's Prophylactic. By Dr. M. M. T. Christie.—The author describes the method used by her in inoculating with Haffkine's prophylactic, at Calcutta, in 1898. The dose varied from 5 cubic centimetres to 10 cubic centimetres, the ordinary dose for an adult male being 5 cubic centimetres. The back and outer side of the arm was the site selected for the inoculation, the skin being disinfected and the needle of the hypodermic syringe rendered aseptic by means of carbolic acid, which has no bad effect on the prophylaxis. Some 2,490 cases were inoculated, and none of the patients died of plague during that year's epidemic. No untoward results were noted. Inoculation was refused to sick persons, nursing mothers, pregnant women, children under two years of age, and very aged and feeble individuals.

A Note on the Organization and Conduct of Plague Laboratories. By W. C. C. Pakes, D. P. H.—A laboratory for the investigation of plague should consist of three rooms: an anteroom for the preparation of media, etc.; the laboratory proper; and a room wherein to keep infected animals. It should be in a special, isolated building. The walls and ceilings should be made of nonporous material, and glazed; the floor should be of cement, and all corners should be rounded off. The ventilation of each room should be separate, the outgoing air being made to pass through a gas flame. As little furniture as possible should be used.

The bacteriologist should himself alone handle the infected material, cultures and animals, even to the extent of feeding the animals. He should wear strong mackintosh overalls, which should be frequently disinfected. The media should all be prepared in the anteroom; the assistant should enter the laboratory as little as possible. There should be but one key, and that in the possession of the bacteriologist. All autopsies should be performed in the laboratory. When completed, the bacteriologist should sterilize all instruments, calcine the body of the animal, and thoroughly disinfect the work table. All discarded cultures should be at once sterilized. No other work than the investigation of plague should be performed in the laboratory.

Plague and Influenza: Mixed Infection in Houses. By Dr. W. C. Hossack.—The author reports a series of cases of influenza occurring in houses where cases of plague had been previously observed. They were, at first, thought to be cases of ill-defined plague pneumonia. Bacteriological examination of the cultures from two cases showed the presence of an organism apparently identical with Pfeiffer's influenza bacillus.

Tribune médicale, October 17, 1900.

Abscess of the Liver.—M. Hutinel says, in a clinical lecture upon this subject, that a large abscess may be confused with a suppurating hydatid cyst; but the latter is slow in its development and develops without fever. Dysenteric attacks and residence in hot countries predispose to hepatic abscess. Aspiration, followed by incision, if pus is found, is the proper treatment.

Indépendance médicale, October 17, 1900.

Peripheral and Radial Paralysis of the Brachial Plexus. By M. Déjérine.

Presse médicale, October 17, 1900.

Popliteal Cysts. By M. Duplay.

Gazette hebdomadaire de médecine et de chirurgie, October 18, 1900.

Successful Treatment of Dysenteric Ulcer with Subcutaneous Injections of Gelatin.—M. Amédée Pugnat reports the case of a man, fifty-four years of age, who had contracted dysentery in Algeria. He suffered from intractable hæmorrhages from the intestines which, it was assumed, originated in a dysenteric ulcer. No treatment was of any avail until two subcutaneous injections of a two-per-cent. solution of gelatin in physiological salt solution were practised at intervals of two weeks. From this time, the man improved as regards his dejecta, his blood-count and his general condition.

Province médicale, October 13, 1900.

Mononucleosis in Variola.—M. Jules Courmont and M. N. Montagard have shown that in all cases of variola there is a leucocytosis which consists of mononuclear leucocytes, even at the time of suppuration if there are no complications; when furuncles or abscesses accompany the variola, however, the leucocytes are polynuclear in character. In the present paper, the authors confirm this former view and affirm that, in doubtful cases, they have always been able to make a positive diagnosis by the presence of the mononuclear cells and a considerable number of myelocytes. They believe this result of the blood examination to be a powerful aid in the diagnosis.

Achondroplasia in an Adult.—M. R. Pauly and M. Tessier report such a case in a man forty-five years of age, with normal chest and normal genital organs. The arms, hands, thighs, legs and feet were exceedingly short and undeveloped. A striking point in the examination of the man was the disproportion between the trunk and the extremities. The man had a large cephalic index, which, as well as the disproportion referred to, is an important sign of achondroplasia.

Revue de chirurgie, October 10, 1900.

Suture of Wounds of the Heart.—M. F. Terrier and M. E. Raymond say that the most advantageous method of approaching the heart in cases of wounds of that organ is by the formation of an osteoplastic flap in the chest wall, that shall turn outward. It is preferable, when possible, not to attempt to reach the pericardium through the pleura but from the outside—that is, from the wound or the incision. An interrupted suture is better than a continuous one for the closure of the cardiac wound. Drainage of neither the pericardium nor the pleura is advised, as these serous surfaces will then be as completely closed as it is possible to make them.

Subpyloric Gastroduodenostomy.—M. Eugen Villard prefers gastroduodenostomy to gastroenterostomy because of its simplicity and safety in cases of cancer limited to the pylorus with glandular invasion of the lesser omentum, when gastrectomy is contraindicated. It is also an operation of choice in cases of cancer of the lesser curvature of the stomach, with involvement of the pylorus and a tendency to infiltration of the omentum. The gastric opening will be sufficiently distant from the neoplasm to be protected from secondary involvement. The operation is indicated, also, in those cases of gastric ulcer in which severe hæmatemeses would seem to justify the performance of a gastroenterostomy. If the ulcer can be located in the pyloric region, it offers an especially suitable case for gastroduodenostomy.

Enteric Opotherapy in Intestinal Obstruction.—M. E. Vidal has experimented upon animals with, and has used in two human beings, an extract made from the mucous membrane of a pig's intestine. In the two cases cited, in which one patient died, the other recovering after operation, both patients were suffering from intestinal obstruction. The stercoraceous vomiting and stercoræmia were improved in both cases. The author believes that, for the relief of the vomiting and of the blood poisoning, this extract has a useful field in cases of this nature.

Cancer of the Large Intestine (*continued article*). By M. R. de Bovis.

Report of Section on Surgery in Children, Thirteenth International Congress.

Revue de médecine, October 10, 1900.

Trophic and Sensitive Disturbances in Hæmiplegics.—M. P. Chatin sums up his studies in the belief that an atrophy of central origin reflects equally strongly on the motor functions and upon the nerves of sensation. He thinks that muscular atrophy is the result of a simultaneous reduction of sensation on the one hand, and of the motor and vaso-motor functions on the other.

Spasmodic Paraplegia and Multiple Sclerosis in Various Members of a Family.—M. R. Costan and M. G. Guillain report an instance in which the patient, his father, and his sister, presented the classical clinical pictures of spasmodic paraplegia. The authors are inclined to term this appearance of the disease in various members of the same family, a "family form." They also record two cases of multiple sclerosis in a brother and a sister. They cite a number of similar cases from the literature of the subject.

Persistence of the Ductus Arteriosus (*continued article*). By M. G. Gérard.

Centralblatt für innere Medicin, October 20, 1900.

Pathology of Alcohol.—Dr. Georg Rosenfeld has made a number of experiments on dogs by giving them alcohol. He says that the administration of alcohol in quantities of from three to four cubic centimetres per kilogramme of weight to fasting dogs, will cause a fatty degeneration of the liver in about twenty-two per cent. of the experiments. At the same time, the liver will be remarkably free from glycogen. The administration of cane sugar simultaneously with the alcohol will prevent the fatty degeneration of the liver.

Centralblatt für Bakteriologie, Parasitenkunde und Infectionskrankheiten, October 6, 1900.

Morphology of the Bacillus Mallei. By Dr. Bruno Gallio-Valerio.

Influence of Mercurial Poisoning on Intestinal Bacteria.—Dr. H. Katsura concludes from his studies that, through mercurial poisoning, bacteria already in the intestines thrive especially well. The proliferation of bacteria cannot, however, be responsible for the inflammatory changes in the intestine, for their introduction into the intestine produces either no anatomical changes, or very different ones. The bacillus coli is probably the particular variety which thrives so vigorously under the influence of the mercurial poisoning, and the other species seem to disappear entirely.

The Acoleinæ.—Dr. O. Fuhrmann describes two varieties of sexually different cestodia, the *Dioicocestus paronai* (Fuhrmann) and the *Dioicocestus aspera* (Mehlis).

Disinfection by Formalin.—Dr. F. Alba and Dr. A. Rondelli have made numerous experiments with Schering's and with Flügge's apparatus, respectively, for producing formalin vapor. They find that the vapor is good as a superficial disinfectant only for smooth and comparatively clean surfaces, like polished furniture; if visible dust is present, no disinfection takes place. The surface of the floor is not affected, nor is the surface of upholstered articles always equally sterilized. The same holds true of walls and of the interior of mattresses, rolled-up carpets, etc. Formalin disinfection should always be followed by bichloride of mercury and steam disinfection. At least ten hours must be allowed for disinfection by formalin vapor, and rooms so disinfected should not be inhabited for twenty-four hours, so that all the vapor may be dissipated. Ammonia may be employed to neutralize the vapor of the formalin.

October 15, 1900.

Two New Pyogenic Microbes: Streptococcus Radiatus and Bacterium Diphtheroides. By Dr. E. Klein.

Opposite Actions of Staphylococcus Aureus and Yeast. By Dr. R. J. McNair Scott.

Retention of Tubercle in Frogs' Bodies.—Professor O. Lubaasch says that tubercle spores injected into the lymph space of a frog are found in the internal organs after weeks and months. At the site of injection, small granulations are usually seen which resemble, histologically, the picture of a foreign-body tuberculosis, while the internal organs give no evidence of reaction, if any exists, to the tubercle bacillus. The spores taken from the internal organs are not capable of producing tuberculosis in a guinea-pig. This is probably due to a temporary loss of virulence, which follows the easier, the less virulent the original inoculating material was.

Penetration of the Duodenum and Pancreas by a Tænia.—Dr. Alexander Stieda reports an autopsy on an aged woman who had died of an ulcerating carcinoma of the pylorus. The duodenum was found to be inhabited by a tapeworm which had perforated its wall lying in the opening, which was of the exact width of the parasite. On serial section of the duodenum and pancreas, the head of the worm was found imbedded in the pancreas, one-eighth of an inch from its posterior surface, and three-quarters of an inch from the duodenum. The parasite was a *Tænia saginata.*

Distomum Saginatum, a New Species. By Professor S. von Ratz.

Apparatus for Producing Saturated Steam and Sterile Water. By Dr. Oscar von Wunschheim.

A Simple Apparatus for the Culture of Anaerobic Bacteria. By Dr. Stanislaus Epstein.

Wiener medizinische Blätter, October 18, 1900.

Artificial Feeding. By Professor A. Monti.

Medicinische Woche, October 15, 1900.

Unsuccessful Dental Operations.—Dr. P. Ritter, a dentist, says that roots or pieces of teeth left in the jaw after attempted extraction, may be productive of severe inflammation. The best treatment is the removal of the remnant of tooth with the adjacent alveolar tissue, by surgical means.

Precautions against the Plague (*concluded*). By Dr. I. Loewenthal.

Centralblatt für Gynäkologie, October 20, 1900.

Disinfection of Midwives' Hands.—Dr. R. Kossmann's method has been assailed, and he replies, emphasizing his former statement that the method is satisfactory, and is in constant use by midwives under his instruction. The procedure is as follows: three minutes of cleansing with Schleich's marble-dust soap, at first without water, then with a little water; rinsing of the hands, washing seven minutes with two-per-cent. solution of quinosol without a brush; drying of the hands; three minutes' immersion in chirol (quirol?), allowing the hands to dry of themselves, and operating with the hands dripping with quinosol.

Reply to Ahlfeld.—Dr. T. Paul and Dr. O. Sarmey deny Ahlfeld's assertion that his method of disinfecting the hands by means of hot water and alcohol will render them germ-free.

Reply to Ahlfeld's Paper on Febrile Disturbances of the Puerperium. By Dr. Krönig.

Wiener klinische Wochenschrift, October 18, 1900.

The Cortical Visual Centres. By Professor S. Bernheimer.

Peculiar Post-mortem Cyst Formation in the Central Nervous System.—Dr. Fritz Hartmann reports an autopsy on a man who had died of superior polioencephalitis. At the autopsy, the brain was found to be full of cysts of various sizes, with colloid contents which took no stain and showed, microscopically, the presence of no elements. The author regards the condition as due to a post-mortem emphysema of the brain evoked by a gas-forming bacillus.

Trachoma. By Dr. C. Ziem (*concluded*).

Riforma medica, October 1, 2, 3, and 4, 1900.

Concerning Verrucous Tuberculosis of the Skin. By Dr. Senisi Donato.—This affection, first studied by Riel and Paltauf in 1886, is one of the varieties of tuberculosis of the skin, and is characterized by an eruption consisting of a number of patches of irregular shape, around which there is a zone of redness slightly raised from the skin, smooth, and with enlarged glandular orifices. The zone of redness, or zone of invasion, is covered near the patch itself by minute crusts and pustules. The patch projects a few millimetres above the rest of the lesion, and presents a number of irregular papillomatous elevations, the largest of which are nearest the centre. Among these elevations, there are fissures, erosions, and pustules, and lateral pressure on the patch brings out a few drops of pus. The orifices of the glands and the hair-follicles are no longer visible, and the plaques are only painful on pressure. After a time, when suppuration ceases, the lesion cicatrizes to a certain extent and assumes a violaceous color. Of late, tubercle bacilli and small cold abscesses have been found in the plaques. The treatment consists of curetting, cauterization, and removal with subsequent cauterization of the wound. Curetting alone does not give trustworthy results. Removal of the bulk of the growth with the knife until healthy tissues are reached, followed by cauterization, is better. Tuberculin is of no use in this disease. Among the caustics, the antiseptic caustics, such as silver nitrate, are most useful. The author reports five cases, and gives an account of the histology and bacteriology of the affection, including a series of experiments upon animals that he instituted for the purpose of determining the comparative value of tuberculin and silver nitrate.

October 5, 1900.

A Simple Method of Demonstrating the Bacillus of Koch in Tuberculous Products when They are in a State of Putrefaction. By Dr. N. Pane.—The author calls attention to the fact that, when tuberculous sputum is sent to the laboratory from a distance, it often arrives in a state of putrefaction. In such cases, the microscopist often gets a negative result, because it is difficult to stain and decolorize putrefied expectoration so as to bring out tubercle bacilli, especially if the latter are not present in large quantities. In order to obviate this disadvantage, Pane suggests a very simple method. He washes the expectoration in distilled water before staining, and then uses the method of Ziehl-Nielsen, or that of Ehrlich-Weigert, in the usual way. The result is a brilliantly stained preparation, which shows the tubercle bacilli clearly if they are present. The counterstain is faint and the germs are deeply colored, thus rendering the microorganism very distinct. Naturally, the mixture of water and expectoration must be placed in a centrifuge and the sediment separated for examination, when this method of washing the specimen in a large quantity of water is employed. Pane also used this method for examining small pieces of putrefied tissue, especially the internal organs, for tubercle .bacilli. These pieces of tissue are first washed in water, the water centrifuged, and the residue stained.

October 6 and 8, 1900.

The Mechanism of the First Sound of the Heart. A Critical Note by Dr. Raffaele Supino.—A review of the various theories on the subject.

October 9 and 10, 1900.

Carbolic Acid and Serum Therapy in Anthrax. By Dr. Nicolini Federici.—The author draws the following conclusions as to the value of the carbolic-acid treatment and Sclavo's serum against anthrax as a result of a clinical study of these remedies: (1) Sclavo's serum has a specific action against anthrax provided it is administered when the infection is not too far advanced. (2) It is innocuous, and does not produce any local or general reaction. (3) It has not been shown that the local process is benefited by the serum in any way differing from the effect of the carbolic-acid treatment. (4) The serum treatment is still expensive and not always accessible. (5) Hence, carbolic acid may be used with confidence until the above disadvantages are removed by the regulation of the sale of the antitoxine. (6) The carbolic-acid injections, like those of serum, may be made at a distance from the local process. (7) Neither serum therapy nor carbolic-acid injection relieves the surgeon from the duty of attending to the residual scar.

Gazzetta degli ospedali e delle cliniche, October 7, 1900.

Concerning the Disturbances of Respiration in Hæmiplegics. By Dr. Giovanni Boeri and Dr. Luigi Simonelli.

Experimental Tuberculosis Treated with Cacodyl. By Dr. Carlo Giajmis and Dr. Guglielmo Bazzicalupo.—The authors have studied the following questions by experiments upon animals susceptible of tuberculous infection: (1) Does cacodylic acid exercise a true beneficial specific action against tuberculous infection? (2) If so, what is the mechanism of its activity? Their conclusions are as follows: (1) Cacodylate of sodium acts as do all other arsenical preparations; it is tolerated and is effective only if given in very small doses (fractions of a milligramme). In common with other arsenical substances, it has a cumulative effect. (2) Cacodylate of sodium has no true beneficial or specific effect upon the development or the course of experimental tuberculosis in guinea pigs.

Concerning the Value of Gaertner's Fat-milk. By Dr. Pietro Valenza.—The preparation of Gaertner is a decaseinified cow's milk so prepared that it approaches as nearly as possible to the average of mother's milk in composition. It is prepared by diluting a quantity of cow's milk with an equal amount of water, and subjecting the mixture to the centrifuge. The author used this milk on a large scale at the hospital of which he had charge, and says that he does not know of a better substitute for mother's milk than Gaertner's preparation.

Epidemic Infantile Asthma Due to Autointoxication. By Dr. Bellotti.—The author saw twenty cases of severe asthma in children between the ages of one and five years. The difficulty in breathing comes on within a few hours, and is very distressing. The infants become markedly cyanosed, their faces covered with cold perspiration, the extremities grow cold, the pulse feeble and rapid, and the temperature rises one or two degrees. The tongue is coated, the stools soft, frequent and foul, and there are anorexia and somnolence between the attacks. The disease usually lasts about three days, the attacks being more marked at night. The treatment consists of counterirritation to the chest and extremities, and the administration of calomel and castor oil, with mucilage and syrup of ipecac. The author thinks that the cause of these attacks is a gastrointestinal self-intoxication. He had not the opportunity of examining the fæces of these infants for bacteria. The prognosis is good; all the patients recovered after the administration of cathartics and intestinal antiseptics. The probable source of the infection is the *Bacillus coli communis* which is present in normal infantile fæces, and in these cases was specially virulent.

The Indications and Results of Forty Radical Operations for Chronic Otitis Media Purulenta. By Dr. C. Poli.

A Contribution to the Study of the Relation between Pregnancy, the Puerperium, and Tuberculosis. By Dr. Nicolini Federici.

Vratch, September 30, 1900 (October 12, N. S.).

Concerning the Relation of the So-called Xerosis Bacillus, the Diphtheria Bacillus, and the Streptococcus Pyogenes Aureus to Drying and Dissemination in Dust. By Dr. Lobanoff.—(Materials on the Question of Eye Infection through the Air.) An experimental research for the purpose of determining whether these germs can be dried and whether they may float about on dust-particles. (*To be continued.*)

A Case of Closure of a Defect in the Skull by Means of Osteoplasty from the Femur, According to Seydel's Method. By Dr. A. N. Zimine.—The patient was a boy, aged nine years, who had sustained a severe injury of the skull in the region of the forehead. The defect in the bone was closed by the method described by Seydel in 1889. The author states that this is the ninth case on record in which an opening in the skull was closed by a bone-periosteum plug taken from the femur. The result in the present case was very satisfactory.

Excision of both Testicles for Tuberculosis. By Dr. A. V. Minine.—The case reported here confirms Koenig's theory that the epididymis is affected by tuberculosis before the testicle is involved. The operation was performed sufficiently early and the patient made a good recovery. The diagnosis was based chiefly on the presence of tubercle bacilli in the urine, the absence of venereal disease, and the course of the affection. The patient had noticed a swelling in the region of the epididymis only two days before admission. On section the epididymis was found to contain two tuberculous foci. A second case is also cited which shows that the epididymis is not always affected first in testicular tuberculosis. In this case the testicle itself was the seat of tuberculosis, while the epididymis was free from pathologic changes. Castration was performed also in this case, with good results.

On the Significance of Trichocephalus Dispar in Pathology. By Dr. A. L. Ostrovsky.—The author calls attention to the fact that the occurrence of progressive pernicious anæmia, as the result of the presence of the long threadworm, *Trichocephalus dispar,* is nowhere mentioned in literature, and that, thus far, the question as to the significance of this organism in pathology is extremely obscure. The author describes a case of pernicious anæmia which was due to the presence of the threadworm in the intestinal tract. The fæces contained a large number of the eggs of trichocephalus, and the patient died of exhaustion due to the severe progressive anæmia.

Concerning Local Anæsthesia in Operations. By Dr. A. G. Hinodman (*continued*).—As the result of the study and observation of fifty cases, of which twenty are reported, in which he used Schleich's method of local anæsthesia, the author concludes that this method, and that of Reclus, deserves wider application in operations of considerable gravity, provided the latter are properly selected.

Chirurgia (Moscow), September, 1900.

One Hundred Operations for Cataract. By Dr. V. M. Kroutovsky.—The author is an ophthalmologist in the hospital at Krasnoyarsk (a town in the Yeniseysk province of Siberia), and this is his third report concerning a hundred cases of cataract, including the operations performed since 1897.

A Contribution to the Surgery of the Anterior Mediastinum. By Dr. N. N. Michailoff.—The report of a case of tuberculosis of the anterior mediastinal glands. The patient was a girl, aged fourteen years. A swelling near the sternum, below the fourth rib, and another under the right nipple near the cartilage of the sixth rib, and the presence of enlarged superficial veins together with the existence of a fistulous opening at the junction of the body of the sternum with the xiphoid process, determined the diagnosis. The fistula admitted a probe of considerable thickness, and thin brownish pus came out on pressure, upon the surrounding parts.

An incision was made in the middle of the sternum, beginning at the lower border of the third rib and extending to the fistula. The xiphoid process was carefully removed, and the bone resected piecemeal, beginning at the fistula, by means of Luer's forceps, until the upper border of the fourth rib was reached. The anterior mediastinum was found filled with caseous material, which was removed by means of a spoon. The diaphragm and the pericardium could then be distinguished and adherent masses of caseous tissue were carefully removed from these surfaces. On pressure upon the beforementioned swelling under the nipple, tuberculous pus flowed into the anterior mediastinum from beneath the sixth rib-cartilage. The swelling was thereupon incised from outside, and the probe showed that there was a cavity filled with caseous material behind the sixth cartilage, communicating with the mediastinum, and situated between the pleural sac and the thoracic wall. The cavity and the passage to the mediastinum were carefully curetted, and the entire accessible surface of the anterior mediastinum was wiped out with iodoform gauze and loosely packed with the same material. A drain was led out through the median incision, and another through the incision over the swelling under the nipple. A few sutures were inserted in the median wound. The recovery was uneventful and, four months after the operation, the patient was found to be in perfect health. The author reports a second case, similar to the one cited above, in which a peripleural abscess was treated in the same way. The cause of the trouble in this case was an osteomyelitis of the seventh rib near its anterior extremity. A large peripleural abscess formed and ruptured spontaneously before admission. A wide incision, instead of the narrow fistula, produced a sufficient drainage and healing of the abscess, with considerable falling in of the chest wall.

Concerning the Surgery of Cicatricial Stenosis of the Œsophagus. By Dr. V. N. Savvine.—The author's conclusions are as follows: (1) Although syphilis is a very frequent disease, the occurrence of syphilitic stenosis of the œsophagus is very rare. (2) The affection may occur simultaneously with a similar lesion in the throat. (3) It is manifested by the occurrence of gummata, or of scars resulting from the cicatrization of the latter. (4) Evidently, a cirrhotic process may take place without the formation of gummata. (5) The usual treatment is only effective in the presence of gummata, or of gummatous infiltrations, and not when the scars have already formed. (6) In cases in which there is cicatrization, gradual dilatation of the œsophagus by means of bougies must be employed. (7) In cases of impenetrable stricture, external œsophagotomy, with subsequent dilatation, must be used. (8) If this is not possible, gastrostomy, followed by feeding through the fistula or by the use of sounds from below upward, is indicated.

Concerning the Value of Jalsch's Reaction in the Diagnosis of Melanosarcomata of the Liver. By Dr. J. O. Halpern.—The melanine reaction in the urine is a valuable diagnostic means, and enables the surgeon to determine the presence of melanosarcoma in the liver, when no physical signs are present. The reaction consists in the addition of sesquichloride of iron to the urine, when, in the presence of melanine, a dense black color is obtained. The author reports a case in which this reaction was of value in diagnosis.

Concerning Tabetic Affections of the Knee Joint. By Dr. A. V. Starkoff.

Pœdiatrics, October 15, 1900.

The Treatment of Scarlatinal Nephritis. By Dr. Robert Coleman Kemp.—Another instalment of a very elaborate article on this subject. In this affection, the value of decinormal saline solution cannot be exaggerated. Its action is diuretic and eliminative. It can be employed by three methods: Enteroclysis (continuous) or by enema, hypodermoclysis, or by infusions. Attention is called to the specific action of normal saline solution in promoting renal secretion. A series of experiments showing the effect on the kidneys of the various methods of employing normal saline solution, is given, and the types of irrigators in common use are illustrated in the text.

The Diagnostic Importance of the Meningococcus Intracellularis. By Dr. Louis Fischer.—In the turbid, and sometimes purulent, fluid containing pus corpuscles, obtained by lumbar puncture in cerebrospinal meningitis, we find the characteristic meningococcus. It has been easily demonstrated that this micro-organism can reproduce the disease in an animal with similar pathological manifestations to those found in the human being. This germ, the ætiological factor in epidemic meningitis of a purulent type, is much less virulent than the germ causing the sporadic type of the disease. In distinguishing the epidemic form from the sporadic form, it is well to remember that the duration of the epidemic form is always very lengthy, while the sporadic type ends fatally in from four to five days. Tapping the spinal canal, not only invariably aids in supporting the diagnosis, but, in some instances, has given temporary, if not permanent, relief.

Montreal Medical Journal, September, 1900.

The President's Address: Delivered at the Annual Meeting of the Canadian Medical Association, Ottawa, September 12, 1900. By Dr. R. W. Powell.—The speaker dealt chiefly with matters of local interest. On the Prevention of Tuberculosis he said:

"The cry is now being heard to arise in the land: 'Keep us free from contamination by this awful scourge which brings sorrow and disaster to so many of our homes. Do not allow consumptives to mix with well people.'

" 'Prohibit them from public places. Shut the doors of our churches, our theatres, our railways, our public conveyances to them. Do not allow them to expectorate on the public streets, to say nothing of such a practice inside the four walls of a building—in other words, isolate them from all mankind.' The answer is simple. It is impossible to work so radical a change immediately, but if those who are revelling in the enjoyment of sound health and in the possession of this world's goods will come to our aid, we will gradually but surely bring about a wonderful amelioration of the conditions above referred to. Help us to erect sanatoria in healthy situations accessible to the vast majority. Place these patients under suitable conditions by the expenditure of some of your overflow of means, and even a moderate lifetime will not be by any means too short to witness a revolution in the death rate and in the altered relationship that these afflicted patients now bear to their more highly favored brethren."

He also referred to the subject of blackmail on physicians and enforced the need of some organization for common defense.

The Address in Gynæcology: Delivered before the Canadian Medical Association, Ottawa, September 12, 1900. By Dr. William Gardner.—The author dealt with the subject of mistakes in diagnosis and treatment. His own practice is always to empty the bladder with a catheter as soon as the patient is in position on the table. 1. This gives information as to discharges. 2. Many women are unable to pass water when required. 3. An uncontaminated specimen is obtained. Rigidity, when the patient is in a suitable position, may often be overcome by a series of circular frictional movements over the lower abdomen. The upper and back part of the pelvis may often be reached by those with short examining fingers by steady, gentle, continuous pressure on the perinæum, whereby it is partially turned into the vagina. The author strongly urges caution in the use of the sound. The importance of deviation of the uterine axis from the normal is often overestimated, it being forgotten that the uterus in health is essentially a very movable organ. Another mistake consists in failing to recognize that, in many women, a displaced uterus is only one element, though certainly a very important one, in a case of more or less general descent or sagging of abdominal viscera, the condition of enteroptosis. The sensations of the patient which suggest to her mind displacement of the uterus, and which are likely to be accepted by the inexperienced physician, are often due solely to vaginitis. The author dwelt upon the mistakes in the diagnosis of pregnancy, and especially of ectopic pregnancy, uterine tumors, especially cancer, and concluded by condemning the mistake of parents in not enlightening children, especially girls, upon so much of the matters relating to their sexual health as they ought to know. "If the young girl has to learn of this matter (menstruation) from friends and companions of her own age, or from mature women other than her mother, she may also learn from them other things she had better not have known."

The Address in Medicine: Delivered at the Meeting of the Canadian Medical Association, Ottawa, September 13, 1900. By Dr. Frederick C. Shattuck.—The author dealt with Specialism in Medicine.

Pulmonary Tuberculosis: Its Treatment and Prevention. By Dr. A. P. Proctor.—An address opening the discussion at the first meeting of the British Columbia Medical Association, Vancouver, August 10, 1900.

Our Race and Consumption. By Sir James Grant, K. C. M. G., M. D.—A communication to the Canadian Medical Association's meeting at Ottawa. Largely historical.

Enteric Fever in Children. A Comparative Study of One Hundred Cases. By Dr. A. D. Blackader.

American Journal of Obstetrics, October, 1900.

The Prevention and Treatment of Post-partum Hæmorrhage. By Dr. John W. Byers.—Of this, more than of any other complication met with in obstetric practice, can it be said that its treatment is prevention. The two important measures of prevention to be adopted in all cases are: (1) the proper management of the third stage of labor, and (2) the important principle never to deliver in the absence of pains. A great mistake is an attempt made at once by the obstetrician to express the placenta from the upper and contractile part of the uterus (rendering imminent retention of membranes, post-partum hæmorrhage, and even septic poisoning), instead of waiting until certain signs indicate that Nature herself has effected it.

When the occurrence of hæmorrhage after delivery is expected, the patient should be advised to take exercise, and to keep her skin acting by baths, and the bowels by purgatives. Stimulants should be prohibited, and, if there is albuminuria, a milk diet should be enforced. The fœtus should be delivered slowly, and it is advisable to puncture the membranes when the os is nearly fully dilated. Ten grains of chloride of calcium, taken thrice daily for a couple of weeks before delivery, is good practice.

When hæmorrhage does set in, the first measure to be adopted is *external uterine massage.* When this fails, the use of hot water (118° F.), with a little creolin, or salt (a teaspoonful to the pint), should be used in large quantities, and the whole inner surface of the cavity should be bathed. The hand should not be inserted into the uterine cavity, unless to separate and withdraw the placenta, if, owing to adhesions, external abdominal massage fails to expel it. After the hand has been withdrawn, the uterus should be carefully douched with a hot creolin lotion. Should all the preceding measures fail, *bimanual compression* may be tried. The author prefers, however, *gauze plugging of the uterus.* Then we have the *drawing down of the uterus, as far as possible, with tenaculum forceps;* eversion of the uterus into the vagina so that the bleeding vessels may be caught; or an india rubber ring (Kock's) or a gauze bandage may be fastened around the everted uterus. When the bleeding is stopped, the uterus is to be reinverted. The author does not approve of the injection of perchloride of iron.

When hæmorrhage has ceased, the subsequent anæmia demands the most careful treatment. Subcutaneous injections of ether and strychnine are useful, but our sheet anchor is saline transfusion. Half a pint at 98° F. should be injected into the tissues under each breast. This should be continued until the pulse gets slower and increases in volume. Concentrated meat juices, milk, etc., should be given, and the patient should be encouraged to take nourishment.

Spina Bifida. By Dr. W. Reynolds Wilson.

Vaginal Hysteromyomectomy and Morcellation of the Myomatous Uterus. By Dr. O. Thienhaus.—Not the idea of making large incisions to overcome difficulties in diagnosis, but the idea that when a surgeon makes an exploratory laparotomy he thereby confesses his ignorance, is real surgery and surgery of the future. This article seems to prove that this operation, which exhausts the operator but not the patient, has a well justified place in gynæcological surgery. Some statistics of value, placing the mortality of this operation at from two to three per cent., accompany the text of the article.

Chronic Constipation of Infants and Young Children. By Dr. George Wythe Cook.—The best results are obtained by the most careful attention to diet, exercise, and being much in the open air, avoidance of living in over-heated apartments, massage, regularity of time for the evacuation, and the squatting posture at the time of defæcation without the intervention of chair or seat. This latter, of course, is only available in older children.

The Objections to Symphysiotomy and How to Overcome Them. By Dr. William P. Carr.—The mortality of Cæsarean section is about the same as that of the symphysiotomy of to-day. With the improved symphysiotomy, the results will be found in favor of the latter.

An Indication for Symphysiotomy, with Report of a Case. By Dr. Henry D. Fry.

Complete Laceration of the Perinæum in Young Girls. By Dr. J. Wesley Bovée.—This is rare. Some instances of frightful lacerations are given, as is also the report of a case in the author's experience.

Compression of the Ureters by Myomata Uteri. By Dr. J. H. Mason Knox, Jr.—In all instances of uterine myomata, the possibility of uterine involvement must be considered. When such a condition is suspected, every effort should be made by means of direct examination, by ureteral catheter, etc., to arrive at an accurate diagnosis. The ureters should be inspected whenever the abdomen is opened for the removal of a tumor. The presence of a dilatation of the ureter and renal pelvis, however slight, lowers the resistance of these organs to toxic and infectious agents, and hence inflammatory conditions of the ureters and kidneys not infrequently follow ureteral compression.

Hysterectomy. By Dr. William F. Metcalf.

A Large Pelvic Extraperitoneal Hæmatocele Following Dilatation of the Cervix and Curettage. By Dr. Eugene R. Corson.

The Origin of Ovarian Cysts. By Dr. Mary Dixon Jones.

Albany Medical Annals, October, 1900.

The Management and Treatment of Whooping Cough. By Dr. J. W. Wiltse.—While this disease ranks fourth in point of mortality among the so-called children's diseases, the author regrets the inability of the laity to recognize its seriousness. Of the advisability of isolating cases of whooping cough, there can be no doubt. He deplores the lack of quarantine regulations by the health board against it, and believes that a proper quarantine would impress parents and others with its dangerous character.

As to treatment, he advises proper airing and ventilation of the sick room; moderate exercise in the open air and sunshine in mild weather; daily sponge baths, followed by a brisk rubbing in the drying process, and nourishing and easily digestible diet. Quinine and antipyrine are of use. Bromoform has disappointed the author, and he believes it to be useless. An application to the glottis of a one-third-per-cent. solution of resorcin every four hours during the day, and, when possible, once or twice during the night, would seem to be a very rational procedure. Biniodide of mercury in small and repeated doses, belladonna, guaiacol, tussol, and cochineal, have been also used, the last with some success, when used in combination with ammonium carbonate.

The History of Gonorrhœa. By Dr. William O. Stillman.

Typhoid Fever in Private Practice. By Dr. William J. Wansboro.—The author's conclusions as to the best management of typhoid fever in private practice are: (1) a room capable of free ventilation; (2) removal of feather ticks from the bed; (3) muslin sheets next to the patient; (4) substitution of cotton for woolen underwear; (5) coverings on the bed as light as consistent with comfort; (6) as much water as possible internally; (7) sponge baths every three hours; (8) avoidance of ammonia, whiskey and strychnine, as routine measures, and a proper appreciation of their detrimental properties; (9) advantages of digitalis over all other stimulants; (10) the futility and dangerousness of forcing nourishment; (11) benefits derived from opium and iron in hæmorrhage; (12) that beef broths aggravate diarrhœa and favor meteorism; (13) the value of opium in the form of sun cholera tablets in excessive diarrhœa where bismuth, tannigen, etc., fail.

Dry Hot Air as a Therapeutic Agent in Private Practice. By Dr. R. H. Irish.—The author considers this a valuable adjunct to other treatment in the cases in which it is indicated. Chief among these indications, he wishes to emphasize its use for the absorption of serous or fibrous exudate, or for breaking up fibrous ankylosis or adhesions, and in the treatment, prophylactic, alleviative, and curative (?), of sub-acute and chronic articular rheumatism.

Miscellaneous.

The Removal of Adenoids in every Case of Deaf-mutism.—Mr. Macleod Yearsley, F. R. C. S. (*Treatment,* October), says that considering the benefits which accrue from the removal of adenoids, he would advocate their extirpation in *every* case of deaf-mutism. In justification of this somewhat sweeping assertion he advances the following conclusions:

1. In cases of acquired deaf-mutism due to deafness from primary ear diseases, their removal, even if it does not appreciably benefit the aural condition, places the patient in a more advantageous position for further treatment. In many cases where the hearing is in abeyance from disease depending on the adenoids, *e. g.,* in children who are very deaf from chronic non-suppurative middle-ear disease, and are consequently, whether the result is contributed to by wanton parental neglect or not, unable to learn to talk, the removal of the adenoids will mean the removal of the obstacle to education.

2. In cases in which, from serious and severe exanthematous panotitis, or in those cases in which the labyrinth is impaired or destroyed from acute infectious disease, without much implication of the tympanic cavity and its contents, the removal of adenoids (if present) will, by improving the general health, the nasal respiration, and consequently the cerebration of the patient, place it in a far better position for education by lip-reading than if the growths were allowed to remain.

To these he adds the following, although the acquired form of deaf-mutism has been more especially dealt with:

3. In cases of congenital deaf-mutism due to developmental errors, whether central, peripheral, or of the connecting structures, the removal of adenoids (when present) should be advocated for the same reasons as those just given in the second conclusion.

The Treatment of Impotentia Coeundi.—Professor E. Mendel, of Berlin (*Therapie der Gegenwart,* July; *Therapist,* October 15th), says that for some time, a number of remedies have been recommended as aphrodisiacs against the impotence due to irritable weakness, as well as against that form of impotence where simply a weakness exists, a form which very often follows the former.

He mentions, in this respect: cantharides, which, however, owing to the easily caused harmful effect of it upon the kidneys, had better be avoided; phosphorus (0.0005 to 0.001) twice a day, in pill form or in cod-liver oil; strychnine, best as a subcutaneous injection (0.001 to 0.003), or in equal dose with phosphoric acid; cocaine, which had better be avoided, for fear the patient may become a subject of cocainism; and sperminum (Poehl).

We cannot deny, he says, that in some cases such remedies may be of use, especially in the paralytic form of impotence, but we must not expect too much from them. Recently, Dr. Spiegel has prepared a remedy, which, according to the physiological experiments of Dr. Oberwarth (*Virchow's Archives,* Vol. 153), seemed suitable for employment in impotence, viz., Yohimbin. This is produced from the yohimbehe bark, which is used in the Cameroons by the natives as a remedy against male impotence.

Oberwarth found in animals that Yohimbin acts as a paralytic upon the respiration and reduces the blood pressure. In dogs he noticed, when employing a subcutaneous injections of 0.01 to 0.05, an undoubted action upon the genitals: powerful erections took place, which seemed to be partly painful; besides this, an excitement overcame the animals, which, on giving large doses, increased to severe fits. Mendel has employed Yohimbin in about forty cases of impotence, partly as a subcutaneous injection, partly internally (solution of Yohimbin from 5 to 10 drops three times a day). Owing to the nature of the complaint and the method of prescribing the remedy, which, as a rule, took place in the consulting room, Mendel can only report on part of his patients, as some of them did not return to him. To begin with, he mentions that no untoward influence was noticed in any of the cases. The employment of the remedy showed no influence whatever in impotence due to tabes or other organic diseases. In a number of cases, however, where impotence was due to irritable weakness or paralytic impotence, a marked benefit was noticeable. In one case this action was almost immediate after giving the remedy; in other cases after some weeks' use erections took place (which had previously not occurred for a long time), and, after the time of abstinence, led to regular coitus. In half of the cases which could be checked the remedy did not show any noticeable action. Although, considering the functional nature of the complaint in the cases under notice, he cannot exclude or deny with certainty that the action is a suggestive one, the favorable results obtained by him have induced him again and again to try the remedy, which he has prescribed for more than two years, and it seems to him worthy of a further test in suitable cases. Lastly, as regards hypochondriacal impotence, the physician can exercise a favorable influence by talking to his patient, or by prescribing indifferent remedies; with suggestion, on the other hand, he may do the patient harm by causing doubt. One of the author's patients had become psychically impotent, because the physician whom he consulted had told him that he might become impotent. In the upper class Professor Mendel has found a bottle of champagne to be the best remedy against hypochondriacal impotence, because the inhibition was thereby suppressed, which in a conscious state of mind prevented the completion of coitus.

Sudden Death in Goître.—Dr. H. B. Anderson (*Canada Lancet*, October) records a case of colloid goître involving the middle lobe of the thyreoid gland, measuring six inches transversely. The patient was subject to severe attacks of dyspnœa. A five-eighths-of-an-inch trocar and cannula was used and a drachm of thin serous fluid drawn off and about the same amount of normal saline solution injected. A galvanic current, less than twenty milliampères, was applied. While the patient was speaking, she was seized with spasmodic cough and choking; respiration became gasping and stridulous; the face was livid. The current was stopped and all measures for inducing respiration were tried but without avail. At the autopsy the tumor was found soft and semi-fluctuating. In its centre was a small operation wound which admitted a probe without resistance, five-eighths of an inch in depth. No important vessels were found on dissection in the line of puncture; the sterno-hyoid and sterno-thyreoid muscles were much hypertrophied, forming very prominent muscular bands over the surface of the tumor. On exposing the tumor it was found to consist of the enlarged isthmus of the thyreoid gland. It was of a dark reddish color. On incision a considerable quantity of dark, reddish-colored, semi-gelatinous fluid escaped. The mass contained larger and smaller cystic cavities. There were some dark-colored blood clots, and evidence of previous hæmorrhage into it. Behind the goître the trachea was considerably flattened, but the passage was not occluded and when relieved of pressure assumed its normal appearance. The enlarged middle lobe of the thyreoid had pressed the lateral lobes outward beneath the sterno-mastoid muscles, thus displacing the structures in the carotid sheath. The veins of the neck showed extreme distention, being quite as large as one's thumb. The larynx was normal in appearance. The trachea contained some reddish-colored, frothy mucus and the mucous membrane was congested. Right lung weighed 18 ounces, left lung 19½ ounces. Both lungs and pleural cavities were normal except slight hypostatic congestion at the bases. The heart weighed 7½ ounces; right side was full of dark fluid blood; left side was contracted and empty. The heart muscle was firm and of a brownish-red color. Tricuspid orifice was enlarged so as to admit four fingers, the other orifices and the valves were normal. The coronary arteries were normal and free from atheroma.

Microscopic examination of the goître showed it to be composed of vesicles, irregular in size and shape, lined with epithelium, which in places showed evidence of rapid proliferation, almost suggesting malignancy. This, however, was merely the appearance of the actively secreting glandular tissue. The vesicles were filled with colloid material and contained epithelial cells in various stages of colloid degeneration. The tissue was exceedingly vascular, being engorged with blood, and at places there were extensive irregular hæmorrhages. The post-mortem examination pointed to *asphyxia* as the cause of death, as shown by the engorgement of the right side of the heart and general venous system, viscera and membranes of the brain, with blood exuding from the nostrils, and blood-stained, frothy mucus in the trachea. The author says this view accords with the clinical signs. The fatal attack came on with spasmodic cough, gasping, stridulous respiration, followed by lividity and cyanosis. There was evidently increased pressure upon, and irritation of, the recurrent laryngeal nerve, with spasm of the glottis and consequent asphyxia. The author points out that the possibility of a goître producing sudden death is important from a medico-legal point of view, though he has never seen it stated among the causes.

Œdema of the Lower Limbs Following One Dose of Sulphonal.—Dr. Fakeerooddeen Hossain Khan (*Indian Medical Record*, September 12th) says that a friend of his, aged forty-eight, complained of insomnia and was given twenty grains of sulphonal at bedtime. Instead of having the desired effect, a very restless night was passed, and early in the morning to his great surprise both legs and feet were found considerably swollen, with a sensation of much weight all over the body, which, however, disappeared without any medicine being taken. The man had recently suffered from syphilitic ulcers, lived a sedentary life, was rather stout, and indulged only to the extent of a glass of whiskey with evening meals, and occasionally smoked a cigar. There seemed to be nothing to account for the sudden swelling, except the sulphonal, which was obtained from a reliable chemist and was taken two hours after the evening meal, no other medicine having been taken either on that day or for several days previously.

A New Method of Procuring Artificial Abortion.—Oehlschläger (*Centralblatt für Gynäkologie*, July 7, p. 694; *Medical Review*, August) employs the following method of inducing abortion when it is indicated: A curved metal catheter with a lumen two millimetres in diameter is introduced into the uterus as far as the fundus; if it does not touch the fundus it may not reach the ovum, and the procedure may fail. From forty-five to sixty minims of tincture of iodine are then injected by a syringe, the nozzle of which fits the lumen of the catheter exactly. The catheter is withdrawn, and a tampon of cotton wool is placed under the external os to prevent needless cauterization of the vaginal walls. If this is done, a few days, or at most, weeks, after a period is missed, it causes so little inconvenience that it is not necessary for the woman to keep in bed. A discharge of blood appears generally on the third day, and lasts for about as long as an ordinary menstrual period.

The distinguishing feature of the author's method is the employment of tincture of iodine, the advantages of which are: 1. it at once kills the fœtus; 2. it is antiseptic, and penetrates both the maternal and fœtal tissues and so prevents septic after-effects; 3. it is irritating, and induces uterine contractions.

Some Uses of Liquid Air in Surgery.—M. Barthélemy (*Bulletin de la Société de Dermatologie et de Syphiligraphie; Journal de médecine de Paris,* August 12th) says that liquid air has been employed in two cases of hypertrophic and ulcerative syphilides, two cases of simple chancre, of which one was phagedænic, and one case of commissural leucoplasia and labial epithelioma. The results were as follows: The syphilides became flattened and healed rapidly under the ordinary applications; the simple chancre, in spite of numerous applications, remained virulent, but the phagedæna ceased and cicatrization quickly ensued; the leucoplasia was uninfluenced; but the chancroid underwent no perceptible modification. The application is said to be neither painful nor dangerous.

An Acetanilide Habit.—G. W. Gaines (*New Orleans Medical and Surgical Journal,* July; *Medical Record,* August 11th) says that some four years ago acetanilide was prescribed for a negro adult suffering from rheumatism. The man found that he was relieved by its administration, but that on leaving off the medicine for a few days the pain returned. So he began taking it constantly each day. Now he uses two ounces each week and has been doing this for some months. It is not stated whether the man suffers any ill effects from his habit.

An Alleged Early Sign of Phthisis in Children.—*Revue médicale* for August 29th cites from other French journals the statement of Dècecy, made at the congress at Naples, that the development on the thoracic walls of localized arborescent engorgement of the larger venules is a signification of early tuberculosis. The patches are situated in the vicinity of the bacillary infiltration to which they bear a relation of intensity.

Letters to the Editor.

A CASE IN WHICH THE MUMPS PROVED CURATIVE OF HERNIA.

Alexandria Bay, N. Y., *October 31, 1900.*

To the Editor of the New York Medical Journal:

Sir: On March 10th, last, I was called to see Mr. W. E., aged twenty-one, who was suffering from parotiditis of four days' duration and had been attacked with orchitis of the right side. He had a complete double inguinal hernia of several years' standing. I replaced the herniæ on both sides and gave strict orders for him to stay in bed. The scrotum was elevated and supported and antiphlogistine applied to the swollen testicle. He completely recovered in ten days, and has since had no return of the hernia on the right side. It appears that the inflammatory process extended to the hernial sac in this case, and produced adhesions sufficient to obliterate the cavity of the sac. C. B. Forsyth, M. D.

Book Notices.

The American Illustrated Medical Dictionary. A new and complete Dictionary of the Terms used in Medicine, Surgery, Dentistry, Pharmacy, Chemistry, and kindred branches, with their Pronunciation, Derivation, and Definition, including much Collateral Information of an Encyclopædic Character, with numerous Illustrations and twenty-four Colored Plates. By W. A. Newman Dorland, A. M., M. D., Assistant Obstetrician to the University of Pennsylvania, etc. Philadelphia and London: W. B. Saunders & Co., 1900.

This new work, according to the preface, seeks a middle course between the large, unwieldy lexicon and the abridged students' dictionary, avoiding the disadvantages of each. It is undoubtedly a serviceable book and particularly convenient to handle and have on the desk for constant reference. The typography is such that reference becomes easy. So far as we have been able to test it, its vocabulary is very complete. The definitions appear to be concise, yet accurate and clear; but we regret to see that the preference is given to the modern craze for phoneticizing spelling, and even apart from this, the spelling is by no means accurate. For instance, the French word for "pregnant," now fairly Anglicized, is *enceinte,* not *enciente,* and its pronunciation is certainly not "on-se-ahnt." On page 745, in the copy in our possession, a peculiar transposition occurs whereby it seems as though three lines had entirely disappeared, a blank space occurring which breaks the continuity and sense of the columns. Scrutiny, however, shows that the left-hand column at the break is continued on to the top of the right-hand column. This in its turn is followed by the bottom of the left-hand column, and that by the lower part of the right. There are some very admirable tables of muscles, arteries, nerves, veins, micro-organisms, tests, stains, etc., and twenty-four really excellent colored plates. One useful and original feature is an index to the tables, including important headings in which large numbers of correlated facts are grouped. Altogether, this new aspirant for favor in the field of medical lexicography will doubtless be welcomed, particularly by the practitioner and "busy man." The type is beautifully clear and distinct, and the volume is handily got up.

The Students' Medical Dictionary. Including all the Words and Phrases generally used in Medicine, with their Proper Pronunciation and Definitions. Based on Recent Medical Literature. By George M. Gould, A. M., M. D., editor *Philadelphia Medical Journal.* With Elaborate Tables of the Bacilli, Micrococci, Leucomaines, Ptomaines, etc.; of the Arteries, Ganglia, Muscles, and Nerves; of Weights and Measures, Analyses of the Waters of the Mineral Springs of the United States, etc., and a New Table of Eponymic Terms and Tests. Eleventh Edition, Enlarged, with Many Illustrations. Philadelphia: P. Blakiston's Son & Co., 1900. [Price, $2.50.]

The fact that this work has passed through ten editions is indisputable evidence that it has attained a considerable meed of appreciation. The present (eleventh) edition is considerably enlarged, and is, moreover, enriched by the addition of illustrations and a particularly useful Table of Clinical Eponymic Terms, Symptoms, Tests, etc. We notice, however, that many terms, such, for instance, as Dobell's solution, are fully dealt with, both in the body of the work and in the Table of Eponyms, where a mere reference in the body of the work to the table at the end would be sufficient. Speaking generally, the vocabulary is comprehensive and the definitions are good; though that of "analogous," for instance, as "conforming to, proportionate, answering to," while correct from a classical standpoint, is scientifically lacking. The corresponding word "homologous," however, receives its scientific value, namely, "corresponding *in structure.*" To the spelling methods adopted we feel compelled to take exception. Whatever may be the personal preferences of the lexicographer, it is his bounden duty to take cognizance of all accepted forms. We venture to say that, taking the English-speaking race as a whole, anæmia and diarrhœa, for example, have the advantage in scholarly support over anemia and diarrhea—yet both are ignored, as are also a considerable number of the established and etymologically more correct forms of many other words. It is not the place of the lexicographer to try to direct language into the way in which he thinks it should go, or maybe is going, but simply to register the allowable usages as they are. To attempt to make a lexicon a propaganda for desired "reforms" is as improper, in our opinion, as it would be for a religious-census-taker to use his office for the purpose of religious proselytizing.

The book is well got up and reflects credit on its publishers, though, in our opinion, the change of form to a square octavo with small margins is a matter for regret. It makes the text appear more crowded and confusing to the eye than in the last edition.

A Dictionary of Medicine and the Allied Sciences. Comprising the Pronunciation, Derivation, and Full Explanation of Medical, Pharmaceutical, Dental, and Veterinary Terms, together with much Collateral Descriptive Matter, Numerous Tables, etc. By ALEXANDER DUANE, M. D., Assistant Surgeon to the New York Ophthalmic and Aural Institute, etc. Third Edition, enlarged and thoroughly revised. With Eight Full-page Colored Plates. Philadelphia and New York: Lea Brothers & Co., 1900. Pp. xi-646.

OUR readers are no doubt, for the greater part, familiar with Duane's medical dictionary, which has now reached its third edition. Among those of lesser bulk, it is one of the best dictionaries that we have and sufficiently exhaustive, too, for all ordinary requirements.

Short Papers on Nursing Subjects. By L. L. DOCK. New York: M. Louise Longeway, 1900. Pp. 57.

THIS interesting little book first leads us to the home of nursing at Kaiserswerth, and gives us a pretty little sketch of its environments. A second paper is descriptive of nursing organizations in Germany and England. In conclusion, we find an interesting and attractive code of ethics for the nursing profession. One will be well repaid for a careful reading of the work.

BOOKS, ETC., RECEIVED.

Eye, Ear, Nose and Throat. A Manual for Students and Practitioners. By William Lincoln Ballenger, M. D., Assistant Professor of Otology, Rhinology, and Laryngology in the College of Medicine of the University of Illinois (College of Physicians and Surgeons); Professor of Otology, Rhinology, and Laryngology in the Chicago Eye, Ear, Nose and Throat (post-graduate) College, etc., etc., and R. G. Wippern, M. D., Professor of Ophthalmology and Otology, Chicago Eye, Ear, Nose and Throat College. Series edited by Bern. B. Gallaudet, M. D., Demonstrator of Anatomy and Instructor in Surgery, College of Physicians and Surgeons, Columbia University, New York; Visiting Surgeon, Bellevue Hospital, New York. Illustrated with 150 Engravings and 6 Colored Plates. Philadelphia and New York: Lea Brothers & Company, 1900.

The Care of the Consumptive. A Consideration of the Scientific Use of Natural Therapeutic Agencies in the Prevention and Cure of Consumption, together with a Chapter on Colorado as a Resort for Invalids. By Charles Fox Gardiner, M. D., Non-resident Fellow of the New York Academy of Medicine; Member of the American Climatological Association. New York and London: G. P. Putnam's Sons, the Knickerbocker Press, 1900.

State Board of Health. Nineteenth Annual Report for the Year 1899. New York, 1900.

Maps. State Board of Health. Annual Report for the Year 1898. New York, 1900.

The Tenth Annual Report of the Eye, Ear, Nose, and Throat Hospital, of New Orleans, La. January 1st, 1899, to December 31st, 1899.

The Thirty-sixth Annual Report of the Trustees of the Boston City Hospital, including the Report of the Superintendent upon the Hospital proper. The South Department for Infectious Diseases; the Convalescent Home at Milton Lower Mills, and also the Medical and Surgical Statistics, House Rules, etc., etc., for the thirty-sixth year. February 1st, 1899, to January 31st, 1900, inclusive. Boston Municipal Printing Office, 1900.

The Australian Medical Directory and Hand Book. Edited and compiled by Ludwig Bruck. Fifth Edition, corrected up to August, 1900. Sydney: L. Bruck, Medical Publishers. London: Bailliere, Tindall & Cox, 1900.

A Practical Treatise on Medical Diagnosis for Students and Physicians. By John H. Musser, M. D., Professor of Clinical Medicine in the University of Pennsylvania; Physician to the Philadelphia and the Presbyterian Hospitals, etc. Fourth Edition, Revised and Enlarged. Illustrated with 250 Woodcuts and 49 Colored Plates. Philadelphia and New York: Lea Brothers & Co., 1900.

Report of the Commissioner of Education for the Year 1898-'99. Volume I. Washington: Government Printing Office, 1900.

Miscellany.

The Labels on Bread.—An investigation as to the sanitary aspects of the practice of labeling bread, as is done by bakeries generally, has been made by the health department of the District of Columbia. Samples of these labels were submitted to Professor J. D. Hird, the district chemist, for an analysis to ascertain the character of the materials used in printing the labels. He has reported that the red color used in the printing inks is a lead and aluminum composition with aniline colors, while the blue inks contain ferricyanide of iron. By calculation, he decides that about .003 of a grain of the printing substances is contained on each label. As the ferricyanide is practically the only injurious substance used, and as this occurs in such minute quantities, he does not think there should be any apprehension of danger from this source. Professor Hird says he does not see that the labels are in any way objectionable from a sanitary point of view, as they are not absorbed by the bread. The only possible objection, he says, could arise from the manner in which the labels are attached to the bread. As they are pressed into the bread while it is in the form of dough, and as there is no absorption of the gum from the labels by the bread, there appears to be no ground for objection.

Work of the Tenement House Commission.—During last June the New York Tenement House Commission sent out a list of forty-seven questions to 100 persons prominent in those branches of the trades and the professions which have any relation with the tenement house question. The list included physicians, lawyers, architects, health board officials, sanitary experts, engineers, college professors, officers of charitable societies and officers of the building departments of various cities. In nearly every instance the questions have been answered and these answers have been collated by the commission, forming two huge volumes of typewritten matter. Among the physicians quoted are Dr. Roger S. Tracy, of the New York City Board of Health; Dr. Moreu Morris, of the Tenement House Commission of the New York City Department of Health; Dr. Feeny, chief sanitary inspector of the New York City Board of Health, and Dr. Annie S. Daniel.

The majority of the contributors agree that not more than sixty-five per cent. of an inside lot, and not more than eighty-five per cent. of an outside or corner lot, should be built over; that air shafts should be built so that they open on the outer air; that five stories should be the limit for a non-fireproof, and seven stories for a fireproof, tenement, except where elevators are provided, and these are almost out of question in the dwellings for the poor; that owners should be forced to provide bathing facilities for the tenants, mainly in the form of shower or needle baths in the basements, and that bathrooms and closets should be provided for every family except where the cost absolutely precludes it.

Common stairways are considered permissible, but all agree that they should be fireproof. To prevent overcrowding, it is suggested that the height of buildings be limited and that it be stipulated by law how many people shall be allowed to the square yard of floor space.

It is significant that the opinion is almost unanimous that the discretionary power now vested in the building commissioner to increase, in his judgment, to seventy-five per cent. the space to be built over on inside lots should be abolished.

On the question of air shafts there is a great diversity of opinion. Dr. Daniel declared: "There should be none at all. The large air shafts in the newer houses are used for drying clothes." The architects stood out for air shafts, but more from the point of construction than sanitation.

The general consensus of opinion seems to favor the restriction of the height of tenements to five stories for non-fireproof structures and to seven stories where the structure is fireproof. Seven stories is the general limit proposed for buildings without elevators, though, where adequate elevator service is provided, this limit need not apply, at least so far as fireproof buildings are concerned.

The questions concerning elevators and fireproof construction brought out a wide diversity of replies. In a general way it appears that to require elevators and fireproof construction throughout is not feasible, on account of the high cost involved, which would raise rents beyond the figures which this class of tenants can pay.

Dr. Tracy says: "It seems to me that matters relating to construction have been pretty well thrashed out, as shown by the practical agreement among the builders of new model tenements that privacy, safety and ventilation, can be best secured by the fireproof structure, by outside stairways and floors entirely separated. Although a good deal is done now, more ought to be done toward teaching the poor how to make the best of what they have, the vast importance of cleanliness, good food (and the cheapest is often the most wholesome) and right living. I think the municipality might do something toward this, and that is where an appeal to the Legislature would be necessary."

The Health of New York.—The following is a portion of the annual report of Dr. Henry Dwight Chapin, chairman of the committee on hygiene of the Medical Society of the County of New York: There is, happily, no special feature to record in reference to the public health of New York city during the past year. The deaths from diarrhœal diseases, gastro-enteritis, and enteritis may be considered as a fair index, in their relation to the general death rate, of the general health and sanitary condition of the community. During the four summer months, the following were the numbers of deaths reported from these causes in the boroughs of Manhattan and the Bronx:

	June.	July.	August.	Sept'ber.	Total.
1900. . . .	259	1,081	754	598	2,692

This does not represent an unusual number, in comparison with previous years, in spite of the great and continuous heat of the past summer. The high temperature of 1900 caused 197 deaths from sunstroke; but in 1896 there were 765; in 1898, 388; while in 1899, 45 only died from sunstroke. The general death rate during 1899 was 19.8 per thousand.

It may be of interest in this connection to glance at the death rates of six of the large cities during the past five years:

	1895.	1896.	1897.	1898.	1899.
London.	19.8	18.6	18.2	18.7	19.8
Paris.	21.3	19.0	18.6	19.7	20.2
Berlin.	19.4	17.9	17.7	17.3	18.7
Vienna.	23.1	22.3	20.9	20.1	20.6
St. Petersburgh. . .	28.8	30.9	29.0	25.8	25.2
New York.	23.2	21.8	20.0	20.5	19.8

The death rates for New York given here are for the boroughs of Manhattan and the Bronx, and are calculated from the results of the United States census of 1900. It is seen by this table that there has been a tendency to a lower death rate during the past few years. This may be accounted for by a lessening of the virulence of influenza, by better paving of streets, and by a more careful oversight of water and milk supply. Much can still be done by physicians and sanitarians and municipal governments in these relations.

During the past year a committee of this society has been studying the milk furnished to New York and considering what practical measures can be taken to improve the general supply. [The remainder of the report deals with the water supply, and presents the subject in much the same way as that in which it has already been laid before our readers.]

The Chicago Milk Supply.—At a meeting of the Chicago Pathological Society, held on October 8th, Dr.

S. E. Munson, of Springfield, Ill., read a paper discussing in particular the relation between the milk supply and tuberculosis. The recent literature bearing upon the subject was discussed, and the use of tuberculin and the slaughter of cows giving a reaction were advocated.

Dr. W. A. Evans spoke of the various measures advocated for the elimination of tuberculosis from herds of cows, and concluded by advising the killing of all tuberculous cows, as had been urged by Virchow.

Dr. Adolph Gehrmann referred to the measures taken by the Chicago Health Department relative to the detection of tubercle bacilli in milk. The examination of the general milk supply for the bacilli had been discontinued, and only the milk from individual cows was tested. The use of tuberculin was always recommended in any case where suspicion was aroused, in preference to the examination of the milk. The detection of pus in milk was considered sufficient evidence upon which to condemn it, even in the absence of tubercle bacilli.

The Treatment of Persistent Occipitoposterior Positions of the Vertex.—At a meeting of the New York Obstetrical Society held on October 9th, Dr. George L. Brodhead read a paper with this title. In looking through the literature of the subject, he said, one found the greatest variety of methods of treatment, and in some instances the earnest seeker after truth would be sadly confused as to which course to pursue, while to follow the teachings of some writers would result in the gravest injuries to both mother and child. For convenience, all cases might be divided into three classes. The first class would include cases in which the vertex was above the brim of the pelvis; the second, cases in which the vertex was engaged in or occupied the pelvic cavity, but was not yet at the outlet; and the third, cases in which the vertex had reached the outlet and was pressing upon the perinæum. The first class of cases, in which the vertex in a posterior position remained above the brim, was met with far less frequently than the two others. Among the operative procedures which had been advocated were the following: 1. Rotation of the head and body forward by external manipulation with the subsequent application of the forceps. 2. Rotation of the head to the anterior position by internal manipulation followed by the use of the forceps. 3. The application of the forceps without previous attempts at rotation. 4. Internal podalic version. Early in labor, with the membranes intact, the rotation of the occiput anteriorly by external manipulation might be successfully carried out, but when labor had been in progress for many hours, whether the membranes were ruptured or not, rotation was accomplished only with great difficulty, if at all. He believed that in the choice between the forceps operation and version in cases of persistent occipitoposterior position above the brim, each operator should be guided by individual experience in operative obstetrics. No rule could be laid down in these cases for one or the other method of treatment, and it could not be said that either method was inadmissible in all cases. For men of comparatively small operative experience, it was his belief that version, not only in occipitoposterior, but also in occipitoanterior positions, was safer for the mother than the high forceps operation. The fœtal mortality, on the other hand, would be higher with version than with the proper use of the forceps. With reference to internal manual rotation of the occiput forward, prior to the application of the forceps, it could be said that in the hands of men accustomed to intrauterine manipulation the occiput could, in some instances, be rotated anteriorly, but that in many cases, especially those in which the membranes had been ruptured for many hours, the operation was difficult, and in cases in which the head was firmly grasped by the lower segment of the uterus, which might have been thinned by a protracted labor, even dangerous. For operators of considerable experience, possessed of the proper knowledge of the technique of the high forceps operation, the following plan seemed to him the best for both mother and child: Under deep anæsthesia an attempt should first be made to rotate the occiput to the front by the introduction of the hand into the uterine cavity. If this failed, the forceps should be applied to the head in the posterior position, by the so-called pelvic application, and the head extracted in a manner to be described further on. The high forceps operation, in these as in all other cases, was always to be undertaken with a proper appreciation of its difficulties and dangers. Nevertheless, in careful hands and with normal conditions, the forceps, in posterior as well as in anterior positions above the brim, would give better results than version, so far as the child was concerned, and results equally good for the mother. If one failed to deliver with the forceps, the child being alive, version, of course, was the alternative. But, in cases in which there was but little amniotic fluid left and the uterus was tightly contracted about the fœtus, the careful, tentative use of the forceps was to be preferred to internal podalic version.

The second class of cases included those in which the vertex was engaged or was in the pelvic cavity, but was not yet at the pelvic outlet. In many of these cases the failure of the head to rotate and advance seemed to be caused by imperfect flexion. During each pain, therefore, the forehead might be pushed upward, in order to increase flexion and bring the occiput lower. Should further assistance be indicated, the forceps was to be used. If the vertex was merely engaged, the blades were applied at the sides of the pelvis by the so-called pelvic application, the head being grasped as a rule somewhat obliquely. If the vertex was in the pelvic cavity, the blades should be applied directly to the sides of the head, the so-called cephalic application being made. Traction should then be carefully made in the proper axis until the vertex was brought to the vulvar outlet. Should the occiput rotate anteriorly during the operation, as was frequently the case when the position at the beginning of the operation had been more nearly transverse than posterior, the treatment would become that of the normal position. If the occiput remained in the posterior position when the vertex had reached the outlet, the further treatment should be the same as for cases which made up the third class, namely, those of persistent occipitoposterior position at the outlet, on the perinæum. It was more particularly to the treatment of this most frequent class of cases that he wished to call attention. In the great majority of occipitoposterior positions rotation was spontaneous, and, therefore, the normal mechanism might be said to be that of rotation from a posterior to an anterior position. But, although the occiput usually rotated forward, the exceptions to the rule were so numerous that one must consider carefully the treatment to be followed in such cases. It would be generally conceded, he believed, that the birth of the head in the occipitoposterior position, even when it was accomplished without great difficulty, was attended with much greater danger of laceration of the soft parts than with the occiput to the front. Again, it would be admitted by everybody that in some cases it was difficult to extract the head if it remained in the posterior position, and in some cases impossible to extract it without great injury, not only to the child but to the soft parts of the mother as well. Furthermore, it would be admitted, he thought, that the fœtal mortality in persistent occipitoposterior cases was higher than when the occiput was rotated forward by one means or another. In all cases, then, with the exception of some multiparæ in whom the soft parts had been so stretched and torn as to offer no resistance to the birth of the head, it was desirable, and, indeed, necessary in the best interests of mother and child, to bring about in some way the forward rotation of the occiput. This could best be done by the use of the forceps. Instrumental rotation had been advised from time to time by various writers, but, in spite of the excellence of this method, it was surprising to observe that no one of our modern text-books advised it, and, in fact, some did not speak of the operation. Nevertheless, the use of the forceps in these cases was a most valuable one, and, as the method was better understood and more carefully followed, it would be given its proper place as the best method of rotating the occiput to the front.

The author quoted from Lusk as follows: "As attempts to rotate the occiput to the symphysis by instrumental means are rarely successful, it is advisable under such circumstances to apply the forceps directly to the sides of the child's head, and, in imitation of the normal mechanism, to extract the head with the occiput posterior." As a matter of fact, the operation as now performed was usually successful and the head could be extracted with the occiput forward. Playfair had said there was danger in the method, and advised against forcible twisting of the head with the forceps with no assurance that the body would follow. As a matter of fact, the body almost invariably rotated with the head or after the head had been rotated, and, even if it did not, no serious harm was done, for the rotation was not extensive enough to cause harmful twisting of the neck. Playfair said, again: "It is impossible to conceive that such violent interference would not be attended with serious risk of injury to the neck of the child." The cases to be described later on showed that the operation, carefully performed, gave no results such as those mentioned. Reynolds said: "The production of rotation by instrumental means through an arc of 180° is attended by so much danger from laceration of the vagina as to be seldom wise." In another article he said: "It is so dangerous to the soft parts as to be permissible to none but the most experienced operators." It was never necessary to cause rotation through an arc of 180°, and, indeed, an arc of 90° was sufficient in most cases, and certainly one of 135° would be sufficient in any case.

The conditions which should be fulfilled before the operation of rotation was undertaken were these: 1. The head should be as well flexed as possible. 2. The vertex should be well down in the pelvis and preferably at the vulvar outlet. 3. The membranes must have been ruptured. 4. The cervix should be fully dilated or dilatable. 5. The bladder and rectum should be empty. 6. Last, but not least, the operator should be positive of his diagnosis of position. Whenever it was possible, the patient should be placed upon a table, but when this was inconvenient the buttocks should be brought to the edge of the bed. For the operation of rotation and subsequent extraction, he had invariably used the Tucker solid-bladed forceps, an instrument which was superior to any other for a number of reasons. The solid blades were more easily introduced, were more easily applied to the sides of the child's head, were removed with greater ease, and, finally, marked the child less than any others. The blades were introduced laterally at the sides of the pelvis, each blade being rotated so as to occupy a position at the side of the head, after which the forceps was locked. He believed that it was safer to apply the forceps in the usual manner (the concavity of the pelvic curve looking forward) than to attempt the rotation with the forceps in the inverted position, but in the hands of an expert the latter method might be safely used. One of the great objections to rotation with the forceps had been the danger of laceration of the soft parts with the tips of the blades. Laceration would surely occur if rotation was made with the handles of the forceps held in the median line, but this could be easily avoided by careful attention to the details of the operation. A straight forceps would perhaps be preferable to a curved one for the purpose of rotation, but with care one could get results just as good with the curved instrument. By carrying the handles of the instrument toward the thigh of the patient toward which the concavity of the pelvic curve looked, or, in simpler words, toward the right side of the operator, if the position was R. O. P., and the left side if the position was L. O. P., the blades became for all practical purposes straight blades. Two fingers of one hand of the operator were placed upon the vertex, preferably upon the sagittal suture, and kept there during the operation, in order to note whether the head was turning with the blades or whether the blades alone were being rotated. The handles of the forceps were seized with the other hand and the blades held firmly against the sides of the child's head. The fingers of the one hand being kept in position on the sagittal suture, the head was rotated during a contraction from the posterior to a transverse position (R. O. P. to R. O. or L. O. P. to L. O.) by rotating the handles of the forceps, at the same time carrying the handles downward and backward until the concavity of the pelvic curve faced the lateral wall of the pelvis. The head was then held in this transverse position for several moments, until several contractions and relaxations of the uterus had taken place. During the relaxed periods the body of the child would usually adapt itself to the position of the vertex; in other words, the back would rotate forward. The head was then rotated to the R. O. A. or L. O. A. position, as the case might be, by rotating the handles, at the same time carrying the handles still farther backward and downward. By so doing, the tips of the blades were kept constantly in the middle of the pelvis, and, therefore, could not lacerate the vagina. The head was held in the oblique anterior position for several moments more, in order to allow the body, during a relaxed condition of the uterus between its contractions, to rotate anteriorly to accommodate itself to the position in which the head was held. The rotation of the body could be verified by palpation and auscultation and by the fact that after the removal of the blades the position would remain anterior. After such a rotation it was surprising to note the advance which often took place immediately after the occiput had come to the front, and in many cases, when once the head had been turned to the transverse position, the rest of the rotation was spontaneous, and delivery is easily completed. After the removal of the blades, the rest of the delivery might be left to the natural forces, but as a rule it was better to reapply the blades in the usual manner and complete the operation in the usual way. If rotation took place easily, as it generally did, much had been gained, especially in the primipara, but if the rotation could not be accomplished except by the use of force, the head should be extracted in the posterior position, the forehead being brought down under the pubic arch, and the head made to advance by using traction in such a way as to promote flexion. Too great stress could not be laid upon the conditions which were most essential to success, viz., the well-flexed head, a low position of the vertex, and the details of the operation. That the operation was safe and accompanied by no danger was proved conclusively to his mind by the results obtained in the eight cases which he reported, in four of which the position was L. O. P., showing that, although according to statistics the L. O. P. position was much less frequently met with than the R. O. P., the former was met with not infrequently. In these eight cases rotation had been performed easily and with perfect safety to the child in all, and with but one extensive laceration of the soft parts, due to œdema of the vagina and perinæum, the laceration taking place before and after rotation had been accomplished.

In the discussion Dr. E. B. Cragin agreed, in the main, as to the methods employed by the reader of the paper. The same methods as a rule were employed at the Sloane Maternity Hospital. The diagnosis of position must be positively made before operation was undertaken. He had used the combined method, in which the surgeon rotated the head internally, while an assistant attempted to rotate the body externally. He had been impressed more and more with the value of the solid blades in just such conditions as had been mentioned in the paper, and thought them most valuable. A point he considered of great value was the method of introducing one of the blades in the median line posteriorly, using it as a vectis in starting the rotation, then introducing the other blade laterally. He agreed with Dr. Brodhead that rotation by the use of the forceps was the method we ought to practise, and added that as experience increased, the results were correspondingly better. In the use of the forceps for rotation, he believed, we were working in the right direction.

Dr. J. Clifton Edgar said he had used the forceps as rotators for years, and believed that the instrument could be so used with safety to the fœtus and to the maternal parts. He preferred the solid blades for the purposes of rotation, for the reasons given in the paper. Opinion had been equally divided in reference to the adaptation of the forceps to the fœtal head. He regarded a positive diagnosis of position as very difficult in some instances, and advocated finding the ear as a valuable aid. He had had but little success with manual correction of occipitoposterior positions, and thought that the method was likely to destroy the equilibrium of the fœtus and cause asphyxia. Full dilatation of the passages was a great essential, and he had found that there were a number of cases in which rotation would take place spontaneously, if the vertex was brought down upon the levator ani muscle and left there. His plan was to bring the head to the pelvic floor, then, if there was no immediate indication for delivery, to allow time for spontaneous rotation and delivery. If applied properly, the forceps could be used with safety to the fœtal head and to the pelvic floor. He also mentioned the fact that in rare instances the occipitoposterior position had changed to a mento-anterior, but said that he had never succeeded in thus rotating the head upon a transverse diameter.

Dr. S. Marx believed that the diagnosis was frequently difficult, and the introduction of the hand into the uterus sometimes necessary. He gave the patient the benefit of postural treatment, which, he thought, would, if instituted early enough, rotate ninety-nine out of one hundred heads. In his opinion, when the occiput was anterior or posterior above the brim, the treatment was version. He never applied the forceps to the head above the brim unless the uterus was ruptured or unless rupture threatened. When postural treatment failed, he used an axis-traction forceps, teasing the head around as traction was made downward. He believed that it should come from this society that every case should be distinctly diagnosticated before an operation was undertaken, and that students at the various colleges should be given more practical work along this line.

Dr. Malcolm McLean stated that he used manual rotation exclusively in such cases. In his experience, cases were frequently diagnosticated as anterior when in reality the vertex lay in a posterior position, and therefore the greatest care should be exercised in making a correct diagnosis. He said that at times, when the head would not remain in the anterior position after manual rotation, he had succeeded in turning the head around on the opposite side of the pelvis. In these cases the cord about the neck seemed to prevent rotation from being satisfactory, whereas by rotating in the opposite direction the cord was unwound from around the neck.

Dr. E. A. Tucker said that the practice of rotating with the forceps would have been considered malpractice a few years ago. He had not seen a text-book which made the direct statement that the head could be rotated with the forceps with safety to mother and child. Yet this procedure was being repeatedly done by our best operators. By "persistent" he understood those cases in which the occiput came down posteriorly and remained so unless some kind of operative interference was used. He considered that an important advance in operative obstetrics had been made in recommending forward rotation with the forceps. Regarding the treatment of cases with the head above the brim, he agreed with the reader of the paper. He spoke of a patient in whom, during the last two labors, the occiput, though anterior above the brim at the beginning of labor, had entered the pelvis in a posterior position. He had rotated the head in both instances with the forceps successfully. In his opinion, the soft parts were more often injured by waiting too long than by the application of the forceps. When all the parts had already become œdematous, laceration took place with or without the forceps. If the operation of rotation was performed before œdema took place, injury would not result. Since 1891 the speaker had performed the operation scores of times, so that with him it had passed the experimental stage and had become routine practice. In his experience, the diagnosis of position could usually be made out from the sutures and fontanelles. Moderate pressure should be made with the forceps after it was applied, or else the blades might unlock and twist around. The amount of pressure should be just sufficient to keep the blades to the sides of the head. The solid blades were the most valuable, and not only were they more easily introduced and applied, but the child was less marked than with the fenestrated blades.

Dr. C. A. von Ramdohr thought that when the shoulders were not fully engaged, and the head was not pressing upon the perinæum, it was advisable to try the forceps for rotation.

Dr. Brodhead thought that there were many cases in which the head so closely fitted the pelvis that it was easier to rotate it with the forceps than with the hand, and that less of the anæsthetic was necessary. He was gratified to learn that so many of those present had used the method successfully, and he himself had never seen harm result from its careful application.

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RATIONAL PHYSICAL TRAINING FOR WOMEN.

By GEORGE ALEXANDER SAXE, M. D.,
NEW YORK.

THE value of gymnastics for women, from both the physiological and the therapeutic points of view, may be considered as a demonstrated theorem; the methods of physical development that are best adapted to the needs of women and the mode of applying them both in gymnasium work and in daily life are still but partly solved problems.

To convince ourselves of the necessity of a more general systematic physical training for women, we need only look at the physical equipment of the average specimen of American girlhood and womanhood. How rarely, after all, do we see girls with clear, blooming complexions; high chests; erect carriage; lissome, graceful, rhythmic walk; well-developed neck, shoulders, and arms, and supple, normally curved spinal columns? Alas! Blaikie's statement that "most girls have better figures before they are two years old than they ever have afterward" is but too true (1).

The Greeks and Romans had a system of bodily exercises by means of which their youths were trained for the exigencies of war; for in those days a man was considered by the State primarily as a warrior. The system of the ancients, therefore, aimed chiefly at developing the strength of the young men, at enhancing to the utmost their capacity for endurance, and at cultivating their skill in certain specialized feats, all more or less directly applicable in warfare, in which the courage, presence of mind, resourcefulness, and agility of the performer, were brought into play. They had no notions as to the physiological significance of the various exercises, but they knew by long experience that certain forms of physical training developed certain parts of the body, contributed to the general health and strength, and assisted in the mastery of one or another military accomplishment. The Greek and Roman maidens, on the other hand, were left to their own resources so far as systematic physical training was concerned. The fact that statues of these women are regarded as standards of perfect physical womanhood seems to show that Greek and Roman girls found enough opportunity for exercise in the performance of their household duties. In tropical countries, girls are trained from childhood to walk to the well and to return to the house with a vessel skillfully balanced on their heads; and it is to such unconscious exercises of daily life and to their perfectly free, unfettering dress, that their splendid physical development may be attributed. It must also be remembered that in the days of ancient Greece and Rome life lacked the strain that characterizes our excessive civilization, and that these women had the physical advantage of a parentage of generations of unblemished, sturdy manhood and womanhood. With the decadence of the Roman Empire came the introduction of those manifold prosthetic appliances which, since then, have reached their acme in the stays and crinoline of the eighteenth century, and that now have become more subtle, but not less defiant of all hygienic laws—less prominent, but scarcely less deforming. Thus, the evolution of fashion, from the natural, beautiful costume of the Greek maidens and matrons to the highly artificial apparel of the last two centuries, is intimately correlated to the physical deficiencies of the women of to-day as compared with those of antiquity. With the necessity of concealing defects and enhancing that which is passable, came the corset and the other abominations of women's dress, and they, completing the vicious circle, react by leaving their mark upon the physique of the women who wear them.

Pehr Henrik Ling (2) was the first to recognize the necessity of a sound physiological basis for a rational system of exercise. The result of his life-work is now commonly known as the Swedish system of gymnastics. He became director of the Central School of Gymnastics in Stockholm in 1814, and died in 1839. Ling found many followers in Germany, where the Turn-verein system has been developed to perfection, and where a great deal of work has been done to popularize physical training in the public schools (3). A system of exercises for the army was introduced in Prussia in 1847, and in the same year a decree of the Minister of War established a system of physical training for the French army (4). François Delsarte (1811-1871) worked out his system of physical training which aims chiefly at teaching the principles of expression in motion, speech and singing (14), and in 1889 the French Government adopted an elaborate programme of physical culture for the public schools (4). In England, Archibald Maclaren (5), instructor in gymnastics at Oxford, was the first to introduce systematic gymnastics into the army, and organized the army gymnasium at Aldershot in 1861. In Sweden, Ling's system was officially adopted by the government in 1860. In America, Hitchcock (6, 7), of Amherst; Sargent (8), of Bowdoin and Yale, and now of Harvard; Anderson (9), Richards, and Seaver, of Yale; Savage, of Columbia, and Emerson (10), Checkley (36), Roberts (11), and Posse (12), of Boston, have contributed to the advancement of physical education.

In broad lines this is the evolution of systematic physical training for men. The usefulness, nay, the necessity, of similar training for women, has only become apparent to physicians and educators within recent years; and while the present state of physical education of women is very much better than it was some years ago, there is still a great deal left undone, and a great deal wrongly done. In fact, with all the advances of recent years, the great majority of American women do not receive a systematic rational physical education.

Any one who has seen an assemblage of young women teachers of our public schools, will understand why the

American school-girl of to-day does not receive the proper physical training. The teachers themselves are the products of a one-sided system of education that provided little or no opportunity for physical development; and so they lack that which they would impart to the rising generation. In the same way, mothers lack that which they should transmit by heredity and improve by precept and example. No one who has not had the advantages of proper physical training can appreciate its benefits to the full extent, and no one should attempt to teach gymnastics who is not enthusiastically devoted to the work, knowing its inestimable value from actual experience. Hence mothers' and teachers' classes must be established everywhere before we can hope to influence the next generation.

The advocates of physical training for women have derived much comfort of late from the fact that the "drooping lily" type of girlhood is no longer fashionable, and that the modern society girl is, or pretends to be, "athletic." But their joy is not unalloyed with bitterness; for, in addition to being inaccessible to the average woman, the fashionable sports have the serious drawback that they do not confer upon the actual devotees the benefits which result from a well-balanced, harmonious physical training. Most authorities on physical education agree that such exercises as riding, bicycling, golf, tennis, etc., serve to develop only certain muscles, although they contribute to the general health by the increased oxygenation and the stimulated metabolism that result from all forms of physical exercises (23). Swimming is the sole exception, for only in swimming is every muscle of the body brought into play. How many women actually swim, any one who has visited the seaside resorts knows full well. Of the army of non-combatant girls who wear the uniform, and who toy with the implements of the various games because it is fashionable to do so, I do not speak. Finally, the great drawback of most fashionable sports is that they can only be pursued during the comparatively short summer season. In the winter the athletics of the society girl are limited to the ride in the park or the walk on the avenue in the afternoon, and to dancing at night until the "wee sma' hours."

As regards the question as to what system of physical training is best adapted to the needs of women, it is not my purpose to present a detailed list of exercises, but simply to discuss the principles upon which such a system should be based.

A system of physical training for women should not aim primarily at the development of strength, but rather at conferring health and imparting grace. We do not want female Sandows or Corbetts, but simply natural, healthy, graceful women. Therefore, we must exclude all exercises that merely tend to develop brute force, and must eliminate all the complex feats that involve the acquirement of certain tricks, of certain specialized abilities, and that figure so prominently in the programmes of some boys' gymnasiums.

The system of Ling is characterized by a progressive series of free movements that develop every part of the body physiologically and commensurately, and thus tend to confer health. The system of Delsarte aims at the endowment of the pupils with the second element—grace. Yet, neither of them, alone, is suited to the requirements of physical training for women; but these two systems may be taken as a basis, combined in such proportions as the importance of each element demands, and modified to suit the requirements of the individual pupil.

Two popular demands are made upon the modern gymnasium for women—the reduction of superabundant flesh, and the special development of the parts that are more or less (rather more than less) exposed in the ballroom—the neck, shoulders, arms and bust. The stout woman comes to the gymnasium demanding to be put through a course of training that will make her slender and graceful—the woman with a scrawny neck, angular shoulders, attenuated arms, and meagre bust, enters with the single purpose of improving the musculature of these deficient parts. It is not the aim of a rational system of physical exercise to reduce adipose tissue by any violent, forced course of training; but, in conjunction with diet and other means of treatment, the stout woman may hope to accomplish her cherished purpose by a slow, natural process. As to the lean ones, they can accomplish their end by a long, persistent training that will develop the body as a whole, and incidentally the specially defective muscles. The work is indeed arduous, but the reward is great, for the transformation of the uncouth creatures into pictures of health and grace is truly marvelous.

In arranging a system of exercises for women, the principle that all forms of exertion must be approached gradually, and the laws of progression from simple to complex movements, must never be disregarded. In working with apparatus, the resistance should be regulated by the capacity of the individual, and should be very slowly increased. After a time, a certain amount of facility is acquired in the use of a given apparatus, and it is important then to warn the pupil not to specialize on the particular work in which she has become proficient, but to pay due attention to all other forms of exercise. The proportion that apparatus work shall assume in relation to free gymnastics is an important question. In general, in a woman's gymnasium, apparatus work should serve rather as a diversion from the routine than as the basis of the system of training. Apparatus work, moreover, should not be begun until the pupil has received a certain amount of preliminary training in free motion, and has learned to economize energy and to estimate her individual capacities.

The principle that underlies the regulation of the force, quality, time, and order of motion, may be deduced from a study of the "yawn and stretch," a complex muscular phenomenon which is said to be the natural, instinctive exercise, *par excellence*. Mrs. Hovey (28) has analyzed the act of yawning and stretching, and has effectively pointed out that it is a type of instinctive motion in which the laws of natural muscular action are forcibly exemplified. What impresses one most in observing this act is the perfect uniformity of the slow, rhythmic, orderly and progressive muscular contraction that involves all the voluntary muscles, from the occipitofrontalis down to the flexors of the toes. If we accept the act of yawning and stretching as the natural type of motion, it follows that in a system of physical exercise designed to develop health and grace in women, all motion must take place in natural, slow time, and never in a jerky, jarring manner. This is probably the most important point in the physical training of women, and yet it is, unfortunately, very frequently disregarded. It is only in military drill that the instantaneous, mathematically exact response to the sharply uttered command of the leader is necessary. In a woman's gymnasium such motions have no legitimate place.

With this general principle in mind, the other laws to which all gymnastics that are taught to women should conform, become axiomatic. The first of these laws is that all motion must be performed in agreement with the natural time of muscular contraction, which, of course, varies as the strength of the impulse, and according to the weight and length of the limb or lever to be moved. Therefore the rhythm of an exercise must be different in each individual, and hence no concerted work of the kind that responds instantaneously to a sharp command conforms to this law. In all class work there must be allowances for individual rhythm. The second law, which is directly traceable to the act of yawning and stretching, is that all motion must proceed from the point of attachment of the muscles connecting the moving part to the fixed point, toward the extremity of the moving part; and this progression must not be interrupted or reversed, if we do not want to waste energy and to lose grace. Thus, a lifting motion of the hand should begin at the shoulder and progress toward the fingertips, and not *vice versa.* All motion must resolve toward the point to which it naturally tends, and must not be interrupted or restricted. It must not be supposed, however, that all motions must be performed in a silly, nonchalant manner that aims primarily at grace, and, secondarily, at physical exercise. A healthy physical development can only be secured by the use of sufficient force to give the muscles work; but neither jerky contractions, nor listless, apathetic motions, should be tolerated.

(*To be concluded.*)

Annual Congresses for Russian Surgeons.—We are informed that annual congresses of Russian surgeons have been established in Russia, to be held at Moscow. The first meeting will be held on December 28, 29 and 30, 1900. The following officers have been elected for the organization of the congress: President, Professor Diakonow; vice-president, Professor Bobrow; secretaries, Dr. Rein and Dr. Derewjinsky; treasurer, Dr. Bereskin; members of the committee, Professor Sinitzin, Dr. Soloview and Dr. Martinow.

ENDOTHELIOMA OF BONE, WITH MANY METASTASES.

(FROM THE PATHOLOGICAL DEPARTMENT OF THE NORTHWESTERN UNIVERSITY MEDICAL SCHOOL.)

By FRANZ H. BRANDT, M. D.,

CHICAGO.

(*Concluded from page 798.*)

As to the origin of these endotheliomata, various opinions have been given, some favoring the endothelium of the blood-vessels, others that of the lymph-vessels and lymph-spaces. If we take the capillaries, even the most minute show an endothelial lining; the smaller the capillaries are, the more flattened the cells, consequently longer. As these vessels increase in size, a delicate protoplasmic adventitia is seen; with still larger vessels this becomes a distinct membrane. Eberth and others call this the epithelium of the vessels. Then, again, Golgi, His, Retzius, and Riedel look upon them as distinct lymph-vessels, that is, they think that this lymph-stream does not belong to the blood-vessels. Arnold takes still another view and calls it a peculiar separation from the remaining network; he holds it highly necessary for the nutrition of the blood-vessels; this, however, is not a certain factor. What concerns us more is the relation of the blood-vessels to the lymph-vessels. Lessing (3) and Führer (4) have both seen a relation between the lymph- and blood-vessels. Leidig (5) maintains that the connective-tissue bodies come directly in contact with both lymph- and blood-vessels. Carter (6) says that a net-like structure is found in the connective-tissue reticulum of many organs where lymph is found, and blood-capillaries lie in close proximity. Klein (7) and Boll (8), also Michel (9), all speak of an intimate relation of connective-tissue cells to blood-vessels. It is easy to believe that there may be a direct communication between blood- and lymph-vessels. Recklinghausen, in his *Lehrbuch*, speaks of this. That this has been seen in pathological conditions has been demonstrated by Köster, who found it in the inflamed newly formed structure (10). Now, if we take this formation of communication, is it reasonable to suppose that it should exist only under pathological circumstances? I believe not, since we know of the presence of stigmata; these have been observed over and over again, as, for instance, by Thiersch's (11) showing, by injecting colored glue into the arteries of a healing wound, a penetration of the same at various points, taking on a net-like structure. Again, Recklinghausen, Cohnheim, Hering, Lösch, Heller, and Thoma have seen in life distinct outlets where red blood-corpuscles passed out. These stigmata undoubtedly are continued into spaces lined with the same endothelial lining. If this is the case, we see a similarity of structure of the intima of all vessels, including the lymph-spaces.

Whether, now, these tumors originate from either is not at all settled; it, without question, does cause variations in the course of the growth; those arising from the blood-vessels are considerably more rapid in their growth, their metastases are more frequent, and we generally, or, indeed, always, observe the pulsation. That the majority of these cases do arise from the blood-vessels is shown in looking through the literature. Only a few, however, have been reported; either they have not been recognized as such or in all probability they are of rare occurrence. As we look through the literature, in most of the cases a history of trauma is present. In my case this was absent, I should be inclined to believe, this not having been inquired into at the time the history was taken. As a result of this irritation, proliferation of the endothelium takes place. During this process new capillaries are formed, and, again, proliferation of those lining cells occurs. In this way the comparatively rapid formation of the tumor, together with the origin from the endothelium of blood-vessels, may be explained. The last is corroborated by the findings in the sections; blood-spaces without lining, and, if a lining is found, these cells are swollen. Whether these blood-spaces are all blood-vessels mainly formed by newly formed capillaries, is hard to tell; looking at some of the spaces, it is not at all unnatural to suppose, seeing in many instances only one layer of cells surrounding the blood-corpuscles, that the blood could have gained entrance by forcing out the central part of the alveoli, at the same time giving us another step toward the explanation of the metastases, of which I shall speak later. The rather fast growth is explained by the large blood supply. The primary growth must have, in all probability, started from the blood-vessels of the bone. First, the entire bone at the seat of formation was absorbed, the periosteum at all points was not involved. Then, as to the marrow. At first I was tempted to believe that it might possibly start from the same, but microscopical examination shows nothing of the endothelioma formation, except a hæmorrhagic condition and an infiltration of leucocytes. The material section was removed close to the tumor formation, so that no error would result. The metastases, occurring quite rapidly and in many places, show them to have taken place through the blood-vessels. This is explained by the loose cells which are found detached in the primary tumor. These are carried along in the blood, like other emboli; at any point along the blood-vessels, where their future progress is arrested in some way, these cells become lodged and multiply until nodules are produced. If no abrasion is met with before they reach the smaller capillaries, they are carried on until they obstruct the lumen of the channel they occupy, and here begins their multiplication.

Looking through the literature, I find that only a few cases similar to mine have been reported. As to the metastases, six cases in all have been found. Jappe (12) gives an account of a primary tumor of the innominate, with metastases in the lung, the pleura, and the contiguous parts of the primary focus. Markwald (13) reports a case in which he observed metastases in the entire skeleton. Rustitzky (14) has found a primary tumor of the temporal bone, with metastases in the sternum, ribs, vertebræ, and the marrow of the humerus. Sudhof (15) has observed and reported a case of this nature, with the primary focus in the twelfth dorsal and first lumbar vertebræ; metastases were found in the sacrum and sternum. Berger (16) reports an interesting case in which the humerus was primarily involved; amputation was done, but some time later recurrence was seen in the upper part of the femur and the frontal bone, just above the orbit. The last case has not been reported, but was observed by Dr. A. E. Halstead, who has been kind enough to inform me in regard to it. The primary tumor was of the sternum, which was removed. Six months later, swelling of the upper ribs again occurred, which undoubtedly is nothing else than metastases. A few more cases have been found in the literature on the subject, and I deem it necessary to give here a short history of them, in order to get a clearer conception of these apparently rare cases.

Kocher (16, b) gives the case of a man, sixty-six years old, with a tumor of the left side of the forehead and a history of trauma. Pulsation and a bruit were noticed. Extirpation was performed. On microscopical examination, the blood-vessels were found dilated, and oval and spindle-like cells were seen to group themselves along these vessels. The distinct line between axial blood-vessels and sæpta lost itself more and more. Kocher believes in an origin from the blood-vessels.

Jappe (17) reports the case of a man, twenty-five years old, with a tumor on the left innominate which pulsated. There were metastases. Partial extirpation was practised, but the man died. Microscopically, the tumor was found to be of an alveolar structure. On transverse section, cells appeared, wreath-like, in from three to five layers around the vessels; the first and second were seen to be in close proximity with the blood-vessels. Here and there spaces with broken down blood-cells were seen.

Lucke (18) records the case of a woman, forty years old, with a tumor on the right arm near the shoulder. She experienced drawing pains. Later, she sustained a fracture while grasping for something. Pulsation was noticed. The skin over the tumor was movable. Exarticulation of arm was performed, and there had been no recurrence after three years and a half. The skin over the tumor was normal, also the periosteum, which formed a capsule for the tumor. Microscopically, a meshwork of fibres was found, in which capillaries ran, and in them bodies of irregular form were lodged. There were clumps of small cells, inclosed with a membrane, which appeared to be of a hyaline structure. The main substance was made up of bodies closely pressed together and imbedded in a fine meshwork of connective tissue.

Rustitzky (19) reports the case of a man, forty-seven years old. In a year a pulsating tumor of size of a fist had developed in the right temporal region, and there were metastases. Microscopically, a section looked like a lymphosarcoma. The capsule was partly bony. The cells resembled blood-cells in size. The walls of the blood-vessels were composed of these round cells.

Kolaczeck (20) reports the case of a patient eighteen years old. In the course of twenty-two weeks a tumor developed on the left tibia, upper part. The skin over the tumor was normal. Fluctuation was noticed at the lower part. Amputation was performed. Cross-section showed the upper part to be firmer, while the lower was softer. Microscopically, the compact part was found to consist of a regular spindle-cell sarcoma. The lower part showed large, closely arranged cells, occurring in patches. The cells varied in size and form, and were not always sharply differentiated. The protoplasm was granular. In other places there was seen, surrounding a distended lumen filled with blood-corpuscles, a very wide capillary; in several sections small oval nuclei were seen, which apparently belonged to the adventitia cells, to which the tumor cells lay in intimate proximity. Such cells proliferating around a blood-vessel were found in all grades, from the first insignificant cases, up to such a spreading that the neighboring cells were beginning to become confluent.

Sudhof (21) tells of a woman, thirty-two years old, who had had pain in one of her lower extremities for three years, with malaise and paralysis. She died of compression myelitis. Post-mortem, the seventh cervical spinous process and arch were found swollen, also the twelfth dorsal and first lumbar vertebræ were of soft consistence. Microscopically, the tumor was found to be made up of medium-sized epithelioid cells with clear nuclei and granulated protoplasm. The cells were imbedded in a stroma of elastic fibres, in alveolar formation also in parallel arrangement. Cross-section showed a more or less regular arrangement of cylindrical or flat cells, which inclosed a fine lumen. A longitudinal section, filled with a fatty detritus, could be followed for a considerable distance, which gave a picture closely resembling an adenocarcinoma. In conclusion, he says: "So it appears in many sections as if, on the periphery of the tumor mass, the cell-strings followed the course of the blood-vessels, so that one was almost forced to attribute the origin to the endothelium of the blood-vessels."

Hildebrand (22) gives the case of a man, forty-five years old, with a tumor of the lower part of the humerus which had developed in about seven months. Later, a spontaneous fracture resulted. The tumor was soft and fluctuated. The bone had been reabsorbed at the seat of the tumor. Microscopically, there was seen a structure between blood-spaces, resembling a gross section of a gland. These structures were composed of radially placed cylindrical cells, which inclosed a lumen of considerable size. Cells shown to be spindle-shaped were separated from the lumen by a very light, thin membrane, toward the outer side separation by a membrana propria was noticed, and in the lumen large numbers of red blood-corpuscles were seen. At some places vessels were recognized by their possessing red blood-corpuscles and well-stained nuclei of the endothelium. In other places there were simply capillaries, but these had a thickened wall, which appeared peculiarly homogeneous and glass-like; then, again, the glassy wall was thickened and formed a separation; one saw a fine line on which there were rows of these cells. Hyaline degeneration was observed of some of the cells surrounding the vessel in a wreath-like form.

Driessen (23) reports the case of a man, seventy-four years old, who for two years had had impairment of mobility of an elbow. There was pain, and the elbow was swollen. There was no change in the skin. Pseudo-luctuation was felt, with distinct pulsation. The diagnosis was that of sarcoma ulnæ telangeiectaticum. The upper fourth of the ulna was entirely destroyed, but the artilage covering it was preserved. Microscopically, the umor was found in cells. Sæpta were seen, of extreme hinness. Between the sæpta there were split-like lumina which were stained dark. The alveoli were not lled with cells. In the hæmorrhagic parts the lumen as filled with red blood-cells.

Billroth (24) reports two cases. The first was that f a middle-aged man with a tumor on the lower part of the tibia. Owing to the strong pulsation and exquisite bruit, it was taken for an aneurysm. Microscopical examination, after injections into the tibial artery, showed that the tumor had infiltrated the whole marrow of the tibia. Partial absorption of bone had taken place. The whole section showed an enormous blood supply.

The other case was very similar.

Markwald (25) tells of a man who had noticed pain in the back, chest, and extremities, slowly becoming worse. Osteomalacia was suspected. The sternum was bent in, there was lordosis of the cervical spine, and there was kyphosis of the dorsal and lumbar vertebræ. All the bones were painful on pressure. There was an intermittent type of fever. Post-mortem, all the bones involved were found soft. A new growth was found starting from the diploe, passing through the tabula vitrea, and continuing over the dura. Microscopically, the tumor was found rich in capillaries, scanty in stroma. There was an accumulation of cells which seemed to run close together. Between the cells there was an aggregation of red blood-cells. No endothelium could be seen. In some places blood-spaces were inclosed only by a layer of cells, so, he says, it must have been a proliferation of the endothelium of the small blood-vessels of the bone-marrow, and he calls it an intravascular endothelium. Pigmentation was noticed in the marrow, liver, and spleen.

Berger (26) tells of a patient who presented a pulsating tumor, together with a spontaneous fracture of the upper part of the humerus. The tumor was of the size of a small orange, occupying the inferior part of the deltoid region. It showed expansile pulsation. The diagnosis was that of pulsating sarcoma of the humerus. Disarticulation was performed. Later, the malady returned, and tumefaction appeared in the region of the upper part of the femur and over the frontal bone. Also, there was a spontaneous fracture of the femur. Bone was absorbed in the different parts. Microscopically, the tumor showed a great number of blood-capillaries. There was great uniformity in the structure crossed by the thin bands. Alveoli were seen, filled with tumor cells resembling cancer cells.

A. E. Halstead (27), of the Northwestern University Medical School, has given me the history of Mrs. T., aged fifty, who applied for treatment at the surgical clinic of the school in February, 1898, complaining of severe and constant pain, referred to about the mid-point of the sternum, which had lasted now for about two months. Examination showed that she was fairly well nourished, and her abdominal organs were apparently in a normal condition. Slight enlargement of bone was noticed at the junction of the first and second portions of the sternum, which was exquisitely sensitive on pressure. The patient gave a history of having had, seven years before, a chronic suppuration of the breast, which finally healed, after numerous fistulæ were established. This being taken to be a healed mammary tuberculosis, the diagnosis of tuberculosis of the sternum was made. An incision was made over the tumor, and a portion of it was removed with a curette. On examination, the tissue was found to be an endothelioma. Two weeks after the first operation, at a second radical operation, all of the sternum, from a point below the level of the clavicle down to the ensiform appendix, was removed. The pleuræ were freely exposed, but were found not to be involved, neither were the mediastinal glands enlarged. On section of the resected portion of the sternum, the tumor appeared to be limited to the central portion of the bone, the posterior lamella of the bone not having suffered from the growth. Recovery followed the operation. Six months later, recurrence took place. Only two months ago I saw the patient, when nodular enlargements were seen all over the upper part of the chest. She is anæmic, and suffers considerable pain.

On microscopical section of the tumor, masses of endothelial cells were seen, placed in clumps, elsewhere appearing in strings. The cells here did not show such a transparent protoplasm, but well-stained nuclei were seen. Surrounding these cell masses, considerable thickening of connective tissue, as a result of proliferating activity, was seen. The section clearly showed an endothelium lymphaticum.

A few more cases have been found in Volkmann's article (32) on endotheliomata, the origin of which will be seen to have been the marrow. The cases are as follows:

Lücke.—The case of a woman, aged forty, with a spontaneous fracture of the upper part of the humerus and a pulsating tumor at that situation. Exarticulation was performed. On examination, the growth was found to be encapsulated. Section showed epitheloid cells arranged in strings and alveoli, with colloid degeneration. Isolated nests of indifferent cells were seen here and there in the reticulum. The origin was from the marrow.

Billroth, 1869.—The case of a middle-aged man with a pulsating tumor of the lower half of the tibia, which was considerably enlarged at that point. Amputation was performed. The growth, which started from the marrow, was very rich in blood-vessels, and the diagnosis was made of alveolar sarcoma with epitheloid and round cells. The origin was, plainly, in the walls of the blood-vessels of the marrow.

Engelmann, 1876.—The case of a man, aged forty-eight, with a tumor of the sternum as large as one's head, and ripe with multiple metastases in the lungs and lymph-glands. The structure was the same as in Lücke's case. The growth started from the marrow-cells.

Zahn.—The case of a woman, aged fifty-three, with a tumor at the base of the occipital bone, with multiple metastases. Microscopically, epitheloid cells were seen, arranged in alveolar and string-like formation, some of the cells having undergone a colloid degeneration. The arrangement did not correspond to the course of the blood-vessels, yet Zahn thinks the origin to have been in the blood-vessels.

Volkmann (32).—The case of a woman, seventy years old, with a large tumor at the back part of the head. The growth was elastic and almost fluctuated. Pulsation was noticed. Perforation of the occipital bone was felt at the base of the tumor. Extirpation of the tumor, together with 2 ctm. of the surrounding structures, was undertaken. The dura was not involved. Ten days after the operation, the patient died in coma. Macroscopically, the growth was found covered with normal skin, perhaps a little atrophic. Microscopically, the growth was found to start from the marrow substance of the diploe, the cell arrangement being tubular and alveolar. It could not be called interfascicular or angeiosarcomatous. It had developed from spindle cells from the marrow, and only part of these cells were in close proximity to the blood-vessels.

Thevenot, in his report on *Endothelioma of Bone* (33), refers to a number of cases, which are as follows:

Van Duyse (34) reports two cases—one of the superior maxilla, the other of the wall of the orbit. Metastases in the latter were found within the cranium.

Poncet (35) reports a case of tumor of the upper part of the femur in a little girl; a tumor of the cranium also was found in the same patient. M. L. Dor, who examined the cranial tumor, pronounced it to be an endothelioma of the bone.

Gross (36) has presented a very interesting case of a pulsatile tumor of the patella. Resection of the bone was undertaken. Soon after, a tumor again appeared at the internal condyle of the femur, which necessitated the removal of the thigh. The patient later became cachectic, and a swelling again made its appearance at the mastoid portion of the temporal bone. Microscopically, the diagnosis of a plexiform angeiosarcoma was made. The origin was from the marrow.

Forgne (37) has observed a malignant tumor of the tibia, examination of which showed it to be endothelioma lymphaticum.

So we have seen that most of these endotheliomata have their origin from the blood-vessels. Colaczeck (28) believes also in their origin from the intima of the blood-vessels. Ackermann (29) and Hermann (30), both believe these sarcomatous growths to start from the lymph-spaces.

Klebs believes these tumors to originate from the marrow. He writes: "Noticeable are the wide blood-vessels having no walls of their own, but only a regular row-like formation of cells. It seems to be intravascular, since blood-spaces without walls of their own are found."

Koenig (31) believes that in the blood there is found an irritating substance which causes the proliferation of the endothelium. To me this seems hardly possible. Why should the proliferative activity confine itself to one place? Undoubtedly Koenig has a reason for this; perhaps a lessened resistance at that place, yet it should occur more uniformly. That there must be an irritation is undoubtedly true. I wish to say, though, that, if there is an irritating substance in the blood with the addition of external trauma, which I have already alluded to, these two may very well cause the proliferation of the endothelium, but without the external irritation it would hardly occur. I fully agree with Koenig as to the course of the disease; it can be stopped or at least considerably lowered by the permeability of vessels, the exudate thus poured out causing a retrogression of the growth.

I deem it necessary also to sum up, as much as I can, the symptoms and course of these cases, as we have seen that the growth is one of extreme malignancy, and, if we recognized it in its early stages, we could undoubtedly prevent its spreading by operating in time. Heredity was not found in any of the cases, and, in reference to sex, the preponderance in the male is as five to one. Endothelioma occurs more in people past middle life, and a history of trauma accompanies nearly all cases.

Symptoms.—The first thing noticeable is the swelling, the duration of which varies somewhat, averaging about fourteen months. As the swelling increases, pain becomes a very prominent symptom, sometimes being quite intense and perhaps radiating in character. With the increase of swelling, a distinct pulsation is seen, and a bruit heard over the tumor. The skin over it is perfectly normal and the periosteum also seems to remain uninvolved. Unless removal of the tumor is practised, gradual absorption of the bone will result in a spontaneous fracture.

General Symptoms.—Anæmia soon develops, with anorexia, emaciation to a certain degree, chills and fevers, and, in the later stages, delirium.

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Hospital for Consumptives in Minnesota.—The annual report of the Minnesota State board of health lays particular stress upon the high mortality from tuberculosis, an average of 1,500 deaths having been attributed to this cause during the past decade. The report directs attention to the communicability and the curability of the disease, and strongly urges the erection of special hospitals for the treatment of tuberculous patients.

A REVIEW OF OUR KNOWLEDGE OF MALARIA.*

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I WISH you to take away with you an illustration of the gradual evolvement of medical knowledge and the metamorphoses our ideas pass through as discovery succeeds discovery, and therefore invite you to indulge me while I review for you our knowledge of the disease called malaria.

The word malaria comes from the Italian *mala*, bad, and *aria*, air, and was originally intended to express a diseased condition arising from the inspiration of bad air.

The disease has been known for several thousand years, and about one hundred years before Christ a Roman physician named Varro wrote a treatise upon it, in which he suggested a kind of germ theory. His idea was that small animals growing in marshes arose in the atmosphere, were inhaled or swallowed by men, and made them ill.

Until 1880 we really learned little more about the disease than Varro knew, and in every text-book up to that time, and in most of those up to the present time, it is described as the typical miasmatic disease and referred to "bad air."

Briefly summarized, the accumulated knowledge of malaria in 1880 was as follows:

1. The disease is not universally prevalent, but is confined to well-defined and usually rather circumscribed districts, in some of which it is continuously prevalent and extremely pernicious, in others intermittently prevalent and milder in type.

2. The districts in which the disease prevails are usually marshy lowlands.

3. The disease is most prevalent and severe in the summer, especially in damp seasons and toward the autumn.

4. The danger of infection is greatest after sunset and during the night.

5. All ages, both sexes, rich and poor, black and white may become affected, though the negro resists the disease better than the white man.

6. Newcomers in a malarious district are more liable to infection than the regular inhabitants.

7. The infection occurs most readily near the ground, and by living in tall buildings, sleeping in trees, ascending to neighboring hills at night, may be avoided.

8. The danger of infection is increased by sleeping with the windows open at night, especially on the side of the house toward the marsh.

9. The danger of infection is greater in still than windy atmospheres.

10. Trees planted between a domicile and a swamp seem to keep off the infection.

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* The greater portion of an address delivered at the opening of the twentieth annual session of the college.

11. Winds carry the infection but a short distance.

12. Thin clothing predisposes to the disease if worn at night.

13. The disease is not contagious.

The important advances in our knowledge of the disease began in 1880. Speaking of them, Koch says that there have been three important discoveries:

1. The discovery of the malarial parasite by Laveran.
2. The discovery of its developmental cycle in man by Golgi.
3. The discovery of its developmental cycle in the mosquito by Ross.

I. *The malarial parasite* was discovered by Laveran, a French military surgeon, in 1880. He found that when he examined the blood of a malarial patient under the microscope, the red blood corpuscles frequently contained small hyaline and larger pigmented bodies with active amœboid movements. He called the bodies "plasmodia" and suggested that they might be the cause of the disease.

Observers all over the world immediately repeated his observations and fully confirmed them, the parasite then being accepted as the specific cause of the disease because:

a. It was invariably present in the blood in typical cases of the disease.

b. Its appearance, which varied with its developmental stages, invariably coincided with the stages of the disease.

c. It was never found in the blood except in malarial fever.

d. Its developmental stages, which corresponded perfectly with other well-known forms of animal life, showed it to be a minute animal parasite.

e. When blood containing it was injected into healthy men and apes they became affected with the disease.

II. *The development of this little animal* was discovered by an Italian named Golgi. In its earliest stages it appears as a minute, hyaline, usually ring-shaped body within or upon a red blood corpuscle. The parasite seems to feed upon the corpuscle, and in a short time pigment granules make their appearance from alteration of the coloring matter of the corpuscle.

The parasite continues to increase in size, the pigment granules become more numerous, and are frequently observed to be in active motion in the protoplasm. When the parasite attains about the size of a red corpuscle, the pigment granules cluster in the centre and the protoplasm begins to segment, finally dividing into from six to twenty rounded hyaline bodies of small size, known as spores. The spores immediately penetrate new corpuscles and begin again the cycle of development.

Golgi, in 1885, first observed coincidence between the occurrence of a paroxysm of the disease and the segmentation of the organism. In a typical case the parasites, all being of the same age, divide at about the same time, and at this time the chill, fever, and sweat characteristic of the disease come on.

The intermittent character of the fever, therefore, depends upon the length of time during which the parasites develop from spores to segmenting bodies, and varies in different parasites from forty-eight to seventy-two hours.

Laveran observed that, in addition to the intra-corpuscular parasites, certain large free forms, usually of crescentic shape, were present. Their number was greatest in the æstivo-autumnal form of the disease. From their shape they became known as "crescents," or "crescentic bodies." Two forms could be observed, one more rounded than the other. If the blood containing these bodies was withdrawn and examined under the microscope, a change was observed to take place in the more rounded body, which in the course of about fifteen minutes became peculiarly agitated, and then discharged delicate elongate filamentous processes which lashed actively to and fro, stirring up the blood corpuscles in the neighborhood, and finally becoming detached and swimming away.

Although these flagellated bodies were observed by Laveran and studied by Golgi, neither investigator was able to interpret their function, and a feeling gradually developed that they were artefacts or accidental entities produced by the death of the parasite. Some investigators regarded them as permanent forms assumed to maintain the existence of the dying parasite.

Manson was sagacious enough to realize that this wriggling and independent flagellum could not be evolved from a disintegrating parasite, and, arguing by analogy from our knowledge of the life history of filaria, concluded that it must be a permanent form of the parasite adapted to existence in some intermediate host, probably the mosquito.

This thought that the mosquito might have something to do with the occurrence of malaria was not new. It had been previously seriously considered by King in this country, and, strange as it may seem, there has been for years a widespread belief among the common people of this country and of Europe, as well as among many savage peoples of Africa, that malaria is caused by mosquito bites.

The theory of Manson was that the mosquito preyed upon malarial blood, the flagellated body developing in its intestine, penetrated its wall and entered the tissues, where it took up its residence until the insect, seeking water in which to lay its eggs, dropped dead there, disintegrated, and thus liberated the parasite, which completed its very complicated development in the water, with which it entered the human body to set up a new infection.

This theory was erroneous, and the real significance of the flagellum was later demonstrated by MacCallum.

Before briefly outlining the work of this American observer, I must mention to you the fact that the human malarial parasite is only one of a considerable number of blood parasites of like nature, some of which infect the lower animals. Koch includes as true malarial parasites (1) that of human quartan fever; (2) that of human tertian fever; (3) that of human æstivo-autumnal fever; (4) the organism found in the blood of African apes by himself and Kossel; (5) the *Proteosoma Grossii* (Labbé), which infects many of the smaller birds (sparrows, canaries, etc.); and (6) the *Halteridium Danilewskyi* (Labbé), which infects many of the larger birds (crows, jays, owls, etc.) Somewhat similar parasites also occur in frogs, rats, and cattle in various diseases and sometimes in health.

All these organisms have met with careful study during recent years, and it is very largely through these studies, especially those referring to the halteridium and proteosoma, that we have attained to our present knowledge of human malaria.

MacCallum's important contribution was the discovery of the function of the flagellated body. He was studying the halteridium parasite, and, observing the large ellipsoid bodies which correspond to the crescentic bodies of the human parasite, found that he was able to divide them into hyaline and granular forms, the former alone giving rise to the flagella. Watching the organisms carefully, he observed the flagellation of a hyaline body, and then followed the wriggling flagellum as it swam away. With others of its kind it directed its motion toward one of the large granular ellipsoids, which as the filaments approached became violently agitated. Finally, one of the filaments entered the granular body and effected a symbiosis with it, the process no doubt being one of vital sexual fertilization. Following the fertilization came a short period of rest, after which the granular body gradually changed to a pointed, worm-like body, then slowly and steadily swam away, its pointed end foremost, dragging behind it a partially detached mass of pigment granules formerly contained within its protoplasm. This process of fertilization is, then, the office of the flagellum, and, being discovered, at once overthrew all Manson's theories.

What MacCallum observed of the halteridium, he was subsequently able to confirm in the case of the æstivo-autumnal human parasite. Knowing their function, it ceased to be correct to speak of the filaments as flagella, and MacCallum calls the crescentic bodies *macrogametocytes,* the filaments *microgametocytes.*

III. We now come to the third important discovery, that of the mosquito as the intermediate host, by Ross. A pupil of Manson, Ross became interested in his theory of the rôle of the mosquito in malaria, and determined to investigate it. Following the outline given by Manson, his first efforts were directed toward finding out what became of the malarial parasites when taken into the body of the mosquito. His early researches were carried on in India, and concerning them it may be well to hear his own words: "Convinced by his (Manson's) arguments, I commenced the experimental study of the subject in Secunderabad, India, in 1895. Hundreds of mosquitoes were fed upon patients whose blood contained gametocytes and examined a few minutes afterward. While it was, indeed, observable that a larger proportion of crescents yield motile filaments in the insect's stomach than *in vitro,* I failed to find any further development of these filaments. I attributed this failure to the extreme delicacy of the bodies, and consequently determined to vary the procedure. Insects fed as before, instead of being examined almost at once for the filaments, were kept alive for some days and then searched for the parasites which, by hypothesis, the filaments should have developed into in the mean time. The difficulty here was that we possessed no indication as to the form and appearance which these parasites would adopt, while we did not even know which species of gnat (mosquito) would be able to accommodate them (and we had no right to assume that all species would have this power). Many hundreds of individuals of the common species of gnats (*culex*) were searched during more than two years in vain. At last, in August and September, 1897, while working with two new species (*anopheles*) bred from the larva, and fed on patients containing crescents, I found certain peculiar spheroidal cells on the wall of the stomach, which at once aroused my suspicions, because I had never seen them before and because they contained the typical pigment of the parasites of malaria. In fact, I was convinced that these cells constituted the long-sought mosquito stage of the parasites."

At this point Ross's work was interrupted for a time, during which MacCallum determined the function of the flagellum, or microgametocyte. When he next took up his work the positive knowledge at his command was that when a mosquito withdrew blood from a patient with malaria, the hyaline crescentic bodies underwent the change leading to the formation of microgametocytes, and by these the granular gametocytes were fertilized. The fertilized parasite, Ross supposed, was that which had attracted his attention in the muscular tissue of the mosquito's intestine, whither it had migrated. To the parasite in this stage the name *zygote* is now given, and the next work to which Ross devoted himself was to determine what became of the zygotes. In 1898 Ross was placed on special duty in Calcutta and continued his investigations, not, however, with human malaria, as the bubonic plague was raging in Calcutta and the people were so alarmed that they would not permit any kind of experimentation, but with the *proteosoma* parasite of birds. As this parasite is common among birds in India and readily infects common mosquitoes, its study was unattended with great obstacles.

Ross found that "the zygotes of the proteosoma attach themselves to the outer coat of the insect's stomach, where they first appear as small oval or rounded cells from 8 to 12 μ in diameter. Each little cell contains about 12 to 20 granules of melanin. The zygotes grow rapidly without movement or change of position or of shape, and protrude into the insect's body cavity. As growth proceeds, the capsule becomes marked and the substance of the cell divides into about a dozen *meres*, each mere containing some of the bioplasm and some of the chromatin of the zygote. In from one to three weeks, according to the external temperature, the zygote reaches maturity, each mere having produced a large number of delicate thread-like *blasts* from 12 to 16 μ in length, attached by their ends to a spherical blastophon which finally vanishes. The capsule of the zygote now ruptures and scatters the blasts into the insect's blood, by which they are carried to all parts of its tissues. Many of them find their way into the cells of the gnat's salivary glands, in which they lie ensconced, sometimes in large numbers. The salivary gland of the mosquito consists of six lobes, the ducts of which unite in a common vessel which passes along the middle stylet or lancet of the proboscis and opens at its extremity. Hence the secretion of the gland must be poured into the wound made by the insect's bite, and is probably the cause of the irritation which the bite causes. Hence, also, the blasts must pass along with the secretion into the wound. The inference is obvious—the blasts enter the circulation of a fresh intermediary host, in which they set up a malarial infection, by becoming the amœbulæ with which the life history of the parasite commenced. In other words, *malarial infection is caused by the bites of infected gnats* (mosquitoes)."

"To establish this important point beyond all possibility of doubt, I made the following experiments (June and July, 1898): A number of *culex* were fed upon sparrows infected with . . . *Proteosoma Grossii.* The insects were kept alive for one week until many of them showed blasts in their salivary glands. The rest (many of which must, of course, have been similarly infected) were now fed again on healthy sparrows, another batch of healthy sparrows being in the mean time preserved from the bites of mosquitoes, for comparison. Out of twenty-eight healthy sparrows which had been subjected to the experiment, twenty-two became infected in from five to eight days afterward, while the control birds remained perfectly healthy."

What Ross discovered to be the life history of the proteosoma in the mosquito was subsequently proved to be true of the human malarial parasite by the Italian investigators. They approached the subject in quite a different manner. It is well known that mosquitoes abound in malarious localities, so Grossi (1898) directed his attention to the study of the geographical distribution of the insects, to determine, if possible, whether in the districts known to be malarious there might be some mosquitoes invariably present, not found elsewhere, that alone might be suitable for the residence of the malarial parasite. He found that in malarious districts three chief species of mosquitoes abounded. One of them, the *Anopheles claviger,* is constantly present. It is a large mosquito, very common in Italy, where it is called *zazaroni.* The other species are *Culex penicellaris* and *Culex malariæ* (not fully determined).

Bastianelli, Bignami, and Grossi (November, 1898) were successful in observing the development of crescentic malarial parasites in the intestinal wall of the *Anopheles claviger.* They placed patients suffering from æstivo-autumnal malarial fever in a room with six specimens of *Culex pipiens,* one of *Anopheles nigripes,* and four of *Anopheles claviger.* The subsequent examination of the insects gave a positive result only in the case of two of the last-named species. The developmental changes observed in the parasites in the mosquito corresponded with those described by Ross. Subsequently Bastianelli, Bignami, and Grossi were successful (1) in infecting healthy mosquitoes by permitting them to prey upon infected men, (2) in infecting healthy men by allowing infected mosquitoes to bite them.

The mosquito chiefly concerned in the propagation of malarial fever is the *Anopheles claviger,* though two other species of the genus anopheles are also under suspicion. The common mosquitoes of the genus culex were found both by Ross and the Italian workers to be innocent.

I regret that lack of time and a due consideration of your patience, which must be by this time sorely taxed, will not permit me to point out the interesting field experiments conducted upon the Roman Campagna, or to enter into the details of the work done by various malaria commissions. It would also be of interest if I could pause to describe the guilty insect offenders and the means that have been suggested for their extermination. I must, however, content myself with the presentation of this much of the subject, and end by a summary that will bring together all the scattered facts discussed.

We now know that when a mosquito of the species *Anopheles claviger* sucks blood from a human being infected with malaria, the parasites undergo a cycle of development in the body of the insect, which is completed in from one to three weeks, according to the temperature, and results in the formation of a large number of minute embryo parasites—blasts—which find their way to the cells of the salivary glands, from which, together with the saliva, they pass into the next animal or man bitten by the mosquito, and there set up a malarial infection characterized by the parasites of Laveran, pursuing the same developmental cycle described by Golgi, and ready, as soon as mature, to infect the next mosquito sucking the blood.

Thus there is an alternating series of infection, man, mosquito, man, mosquito, etc., going on *ad infinitum* until cold weather or other accident destroys the mosquitoes or makes them inactive.

In order, therefore, that a person shall be infected with malaria, it is necessary that he shall be bitten by a particular kind of mosquito at a definite length of time after it has become infected by the blood of a malarial patient.

You will err in believing that the *bite itself* does it. No simple mosquito bite or any number of them do any harm so far as malaria is concerned. The essential is the presence of the *blasts* in the saliva of the mosquito, and these occur only in infected mosquitoes. Anopheles mosquitoes bred from the larva are harmless until accident brings them to someone suffering from malaria, and then, after from one to three weeks, they are ready to infect everyone they bite. As Celli says: "The same mosquito may bite and infect many persons in a single night." The ability to infect is not imparted by the mosquito to its offspring. It is not impossible that malarial infection may take place in other ways than by mosquito bites, but the collected experimental evidence makes this so improbable that it can almost be denied. In the most malarious localities susceptible persons can remain healthy for indefinite periods if thoroughly protected from the mosquitoes.

The "mosquito theory" is, then, a clearly demonstrated fact, and fully explains every particular of the natural history of the disease.

Certain districts, and particularly marshy districts, are malarious because the appropriate mosquitoes inhabit them. Such localities are sometimes free from the disease because the mosquitoes are not infected. They may suddenly become hotbeds of the disease by the advent of some temporary or permanent visitor with malaria, by whom the mosquitoes become infected. Tropical climates, summer seasons, warm weather, and dampness, all favor the disease, because they favor the development of the mosquitoes. The autumn is the most malarial season of the year, because there are more mosquitoes then, and because more of them have had the opportunity to become infected. Infection takes place at night rather than in the daytime, because the mosquitoes are nocturnal in their habits. The infection occurs near the ground, because the mosquitoes frequent the lowlands and do not fly high. It occurs in rooms with windows open, because the mosquitoes can readily enter. Still atmospheres predispose to it, because mosquitoes seek shelter from the wind. It is carried but short distances by the wind, because the mosquitoes avoid flying in the wind. Its occurrence is favored by turning up the soil, because of the occurrence of puddles in which the insects breed. It disappears from marshy districts after they are drained, because the mosquitoes no longer find breeding places there. It disappears when the soil is well tilled, because the breeding places of the insects are interfered with.

The disease is readily transported from place to place by sufferers from it seeking salubrious localities, and by the transportation of mosquitoes in carriages, railroad cars, etc. The disease has an incubation of some days, so that its development in a patient at one place may not mean that it was not acquired at another place.

Where now is "mal-aria"? In the progress of information it has lost all its original significance, and from a disease thought to be caused by bad air we have found out that it is specific, infectious, and that the air has nothing to do with it.

Surely, after this account of one of the most interesting diseases, you will agree with me that the science of medicine is progressive and its collateral aids are innumerable; also, that for its intelligent understanding, one must free himself from every kind of prejudice, and be unrestrained by any fundamental dogma or "pathy."

THE ÆTIOLOGY OF ECZEMA, WITH REFERENCE TO RECENT VIEWS AS TO ITS PARASITIC ORIGIN.*

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The true nature and ætiology of eczema have been the subjects of much study and discussion in late years, and it must be acknowledged at the outset that we are yet far from any definite and generally accepted theory or statement in regard to the same. We do not know with certainty what is the true cause of the disease, why one person will have the eruption, while another under practically the same conditions will escape. Nor are all writers and clinicians agreed even as to whether the eruption is due to local agencies acting on the skin, or whether it is dependent upon internal causes.

Local ætiology has been maintained by stout advocates, and parasitism has strong supporters, but even most of these are constrained to admit that there are internal, general, or constitutional elements which must be taken into consideration, clinically at least, in order to effect the best results in treatment.

But as to the exact constitutional causes of eczema, it must be acknowledged that it is unknown—it has never been demonstrated in the laboratory or clinically.

A careful study of the subject, however, from literature, with abundant and close clinical observation, will show that the weight of evidence and argument is strongly in favor of a general or constitutional nature and causation of eczema, while on the other hand, experience certainly demonstrates that local agencies often do play a more or less active part as exciting causes of the eruption—but the latter are quite incapable of producing the same in those not predisposed thereto; eczema certainly cannot be excited at will in every person by any local means whatever. Brocq has well observed that "eczema, more than any other affection, perhaps, seems to be the reflex of the life and of the functioning itself of the human organism, with all its complexity."†

While, however, we are unable to distinctly specify the cause of eczema, we are able from clinical observation to state very definitely many of the conditions accompanying the eruption, and those which the best observation has demonstrated to have much to do with its genesis and continuance, and are closely related to its cause.

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*Read before the Northwestern Medical and Surgical Society' October 17, 1900.

†Brocq, of Paris (*Annales de derm. et de syph.*, January, February and March, 1900), has made a long and exhaustive study of the subject, reviewing all literature. In conclusion, he recognizes the various forms and phases, and the internal and local causations which have long been described, and which will be dwelt upon later.

CAUSES OF ECZEMA.

- I.—Predisposing Causes.
  - (A) Inherited States.
    - Tissue debility.
    - Eczema.
    - Struma, scrofula, lymphatism.
    - Gout and rheumatism.
    - Neuroses.
    - Bronchitis, asthma.
  - (B) Acquired States.
    - (1) Assimilative derangements.
      - Dyspepsia.
        - gastric.
        - intestinal.
      - Auto-intoxication.
      - Hepatic disorders. Lithæmia.
        - gout.
        - rheumatism.
        - lithiasis.
      - Anæmia, Chlorosis, Cachexia.
    - (2) Eliminative derangements.
      - Intestinal.
        - constipation.
        - erroneous excreta.
      - Renal. Pulmonary.
        - Deficient.
        - Deranged.
      - Dermal.
    - (3) Neurotic derangements.
      - Neurasthenia.
      - Neuroses.
    - (4) Vascular derangements.
      - Cardiac.
        - organic.
        - functional.
      - Peripheral.
        - varicose veins.
        - disturbed circulation.
  - (C) Accidental Conditions.
    - (1) Faulty nutrition.
      - Erroneous food and drink.
      - Excessive food and drink.
      - Deficient food and drink.
    - (2) Disturbing occupation.
      - Sedentary.
      - Remaining long standing.
      - Confinement in bad air.
    - (3) Disease.
      - Exanthemata.
      - Exhausting sickness.
      - Malaria.
      - Accidents.
      - Surgical operations.
- II.—Exciting Causes.
  - (A) Internal.
    - (1) Defective nutrition.
      - Erroneous food and drink.
      - Excessive food and drink.
      - Deficient food and drink.
    - (2) Defective hygiene.
      - Erroneous clothing.
      - Erroneous bathing.
      - Erroneous exercise.
    - (3) Defective assimilation and excretion.
      - Dyspepsia.
      - Constipation.
      - Hepatic disturbances.
      - Urinary disturbances.
      - Auto-intoxication.
    - (4) Neurotic conditions.
      - Direct.
        - nervous exhaustion.
        - nervous strain.
        - nervous shock.
      - Reflex.
        - gastro intestinal.
        - sexual.
        - ocular.
        - dental.
  - (B) External.
    - (1) Atmospheric influences.
      - Heat and cold.
      - Barometric disturbance.
      - The seasons.
    - (2) Mechanical irritants.
      - Scratching.
        - torelievepruritus
          - idiopathic
          - reflex.
        - to remove accumulations.
      - Friction.
        - from occupation.
        - from clothing.
        - accidental.
    - (3) Chemical irritants.
      - Mineral.
        - Dyes in clothing, etc.
        - Soap, washing powders, etc.
        - Lime, arsenic, etc. in occupation.
        - Sulphur, mercury, etc., used medically.
      - Vegetable.
        - Dyes in clothing, etc.
        - Substances handled, poison ivy, etc.
        - Substances employed medically.
      - Animal secretions.
        - sweat and sebum.
        - urine.
        - fæces.
        - mucus (nasal, vaginal, etc.).
    - (4) Parasitic elements.
      - Animal.
        - scabies.
        - phthiriasis.
      - Vegetable.
        - eczema marginatum.
        - eczema diabeticum.
        - eczema from aspergillus (in the ear).
        - ecezma impetiginosum.
        - eczema seborrhoicum.

As in every other disease, the ætiological elements of eczema belong to two main groups: (1) predisposing causes; (2) exciting causes. The second group is readily divisible into two other sub-groups, namely (a), internal exciting causes, and (b) external exciting causes, as shown in the accompanying table:

This list, which has been made up from personal experience in dealing with cases of eczema, covers considerable ground, but it is believed that at one time or other each element mentioned may be of importance in dealing with cases of this nature. These will now be considered in detail, in the order mentioned.

I. Predisposing Causes.—The conditions which may lead up to eczema are seen by the table to be many and varied, relating to almost all the functions of the body. Some of them are of greater importance than others, but all have been observed by the writer to seem to have more or less influence in certain cases. They are (*a*) inherited states, (*b*) acquired states, (*c*) accidental conditions.

A. INHERITED STATES.—The influence of inheritance in predisposing to disease cannot be questioned. As physical, mental, and moral qualities are inherited, so are disease tendencies, and very much relating to the origin of eczema must be referred to hereditary influences. These, as will be seen, are of various kinds, all tending to produce a quality of skin tissue which readily takes on the eczematous action.

1. Tissue Debility.—The first causative element to be mentioned is a certain debility or weakness of tissue which predisposes to eczema. Unquestionably some families are more prone to skin diseases than others; in them the skin as an organ appears to be weak and easily affected, just as in other families the lungs, liver, kidneys, heart, etc., are especially liable to be diseased. In general, those with light complexions and hair are more likely to be affected than those of darker hue.

2. Eczema.—Eczema is not essentially an hereditary disease, for among a large number of cases analyzed in private practice I found that considerably less than twenty per cent. exhibited this feature, among many thousand near relatives. But, on the other hand, cases are constantly met with in which it is distinctly hereditary, and in these whole families are sometimes affected, not only in one generation, but in several.

3. Struma, Scrofula, Lymphatism.—Scientifically, it is difficult to define just what is included under this head, or exactly the influence which it has on the genesis of eczema. But, practically, those who see much of this eruption, especially among the poor, recognize a type of cases to which this term is unconsciously applied, and in which the patients are especially liable to eczema of a rebellious character. They generally have enlarged glands, not infrequently chronic nasal catarrh, otorrhœa, ophthalmia, etc., and a thick, pasty skin, readily taking on infiltration, which is slow to subside. Such subjects acquire eczema on the slightest provocation, again and again.

4. Gout and Rheumatism.—The relations of the gouty state as an exciting cause of eczema will be fully considered later; here we have to do with the inherited condition as related to the tendency to the eruption. In many instances it has happened to see gout and eczema alternated in different generations and branches of a family in such a manner as to leave little doubt that there was a close connection between the two. The patient who has inherited a strong tendency to gout or rheumatism may, early in life, escape all active evidences of joint inflammation, and suffer immoderately from eczema.

5. *Neuroses.*—Closely allied to the conditions produced by the gouty state are those manifesting neuroses, which may tend to the development of eczema. The direct relations of neurotic states as exciting causes of the eruption will be considered later; the predisposition of those with neurotic family histories or with inherited neuroses is here referred to. The proof of such connection is difficult to establish, but experience shows that patients with such a history are very prone to recurrent attacks of eczema of a peculiar type.

6. *Bronchitis and Asthma.*—As will be seen later, these conditions are not at all infrequent in eczema patients, and when acquired by inheritance are often accompanied by a cutaneous surface easily affected by changes of temperature and very liable to eczematous inflammation.

B. Acquired States.—The various systemic derangements which more or less predispose to eczema relate to very many of the minor ailments, constantly observed in those with no eruption. But wide clinical experience by many observers has demonstrated that they are elements of importance in connection with the causation of the disease in many instances.

These acquired states or conditions of the system may be grouped under four headings: 1. Assimilative derangements. 2. Eliminative derangements. 3. Neurotic derangements. 4. Vascular derangements.

I. Assimilative Derangements.—These all relate to functional disorder of one or more organs, more commonly of a chronic type.

1. *Dyspepsia.*—This may include a large number of derangements of the gastric or intestinal functions, and is constantly seen to be a precursor of eczema. The effects referred to now are such as have to do with chronic conditions, whereby an impairment of nutrition has resulted, which the skin has shared in and has thereby lost its power of recuperation under injury, and readily takes on the eczematous state. In many cases the faulty digestion has resulted in a condition whereby the next mentioned cause is operative.

2. *Auto-intoxication.*—The immense importance of fermentative changes which take place in the intestines, and produce toxines, through bacterial influence, is beginning to be widely recognized. It is believed that even as this can cause urticaria and some forms of vesicating erythema, its long continuance can predispose to eczema. The subject will be alluded to again under internal exciting causes.

3. *Hepatic Disorder.*—Although it is not the present fashion to recognize much the part which functional derangement of the liver plays in disease, no one who observes very closely will fail to recognize many symptoms described by older writers which cannot be otherwise explained. It would occupy too much space to dwell upon the various manifestations of this condition, but it is so constantly observed that subjects with eczema have exhibited them, before or with each recurrence of the eruption, that it is impossible to deny their causative influence.

4. *Lithæmia.*—That the acid or gouty state has much to do in causing eczema is an old and very common observation; exactly how it operates in the causation of the eruption has never been demonstrated. But a careful study of a sufficient number and variety of cases of eczema, with close observation of their physical state, will certainly show that in a considerable proportion of them there is an acid state, which will be observed to vary pretty directly with the condition of the skin and the eruption. It is not so very common to find the active expressions of real inflammatory gout, rheumatism, or stone, but in many there is a history of such and, in the far larger number, the more slightly expressed symptoms which are recognized as leading up to these conditions. The urinary changes will be considered later.

5. *Anæmia, Chlorosis, Cachexia.*—It is not at all uncommon to recognize these conditions with each attack of eczema. Patients subject to the eruption will often remain quite free from it until, from some cause, a more or less profound anæmia has set in, recognized either by actual blood count or by the well-known physical symptoms. An eczema may then develop and prove most rebellious to all local treatment until there has been a profound change for the better in the physical state of the patient. As the anæmic condition improves, the eczema yields.

II. Eliminative Derangements.—These relate to disorder of the four great emunctory organs of the body: 1. The intestines. 2. The kidneys. 3. The lungs. 4. The skin. Abundant clinical evidence exists to show that imperfect elimination of the waste products of the body stands in a vital connection with disease of various organs, and many cases of eczema exhibit this in a very striking manner.

1. *Intestinal Derangements.*—Constipation is a most frequent predisposing cause of eczema, and it will be seen later that it also often acts as an exciting cause. The imperfect removal of waste products not only tends to leave the blood current loaded with excrementitious products, but also favors the reabsorption from the intestine of the same as toxines produced by microbic action. In infants especially are seen the results of other erroneous intestinal excretions, where with green and undigested passages we have a recurrence of eczema, with a tendency to improvement as the troubles are corrected.

2. *Renal Derangements.*—Too much importance can hardly be placed upon the relations between deficient and

deranged urinary secretion and chronic states of ill health; the urine indicates very accurately the state of the blood current, and consequently the nutrition of the system. We are not yet in a position to define with any degree of accuracy just what changes in the urine belong to the eczematous habit, but it may be stated that evidences of a deranged secretion are a constant accompaniment of very many cases of the eruption.

The changes in the urine are commonly those of a deficient excretion in regard to the quantity of both its liquid and solid elements. Many patients are found to pass not one-half of the normal quantity of urine, and constantly it will be found that the amount of solids excreted is very far below that normally belonging to their weight.* The urea is often below the normal, as are also the phosphates and chlorides; the sulphates are in excess. Sugar and albumin are found only casually, and casts are seldom seen; uric acid, urates, or oxalates are commonly present. It will continually be found that as the urine becomes deranged the eczema is worse, while under treatment for the relief of these conditions the eczema yields.

3. Pulmonary Derangements.—Little is known in regard to the relation of the exhalation from the lungs and disease, but there are certain pulmonary disorders which are not infrequently associated with eczema in such a manner as to show that there is some relationship between them. These are bronchitis, asthma, and hay fever; it will continually be seen that they occur in these patients coincidently or alternately with the eruption. Imperfect aeration of the blood in the lungs may also play an important part in predisposing to the debility which leads up to eczema.

4. Dermal Derangements.—The importance of the proper action of the skin as an organ is not sufficiently recognized as an element of health and vitality, and must never be overlooked in connection with eczema. We know little in regard to any variation in the character of its secretions, but there can be no question that they do vary from time to time. The irritating nature of sweat in the folds, as in the groins, beneath the breasts, etc., is a frequent cause of eczema in these regions. When the skin is dry and harsh from imperfect excretion, eczema is very apt to develop in many localities. Excessive or deranged action of the glands has certainly a relationship to seborrhœic eczema.

III. Neurotic Derangements.—These relate to: (1) Neurasthenia and (2) definite or irregular neuroses, which have been abundantly shown by many to have a very definite effect in predisposing to or producing eczema. The latter will be seen to be effective as exciting causes of eczema in the next section.

1. Neurasthenia.—As is known, this is often the result of some of the derangements of assimilation and elimination, and so may appear only as a concomitant of the resulting eczema. But when produced by over-work or worry, by sleeplessness or nervous strain, neurasthenia often proves an efficient, predisposing cause of eczema, as could be shown by numberless cases. The nervous element of eczema is always a prominent feature, and anything which reduces the nerve vitality renders the tissues of the skin prone to take on eczematous action.

2. Neuroses.—Whether hereditary or acquired, nerve disorders tend to induce eczema. Many instances are on record of its occurrence from structural changes, as after injury, amputations, etc., and also in very immediate connection with neuralgia, in such a manner as to leave little doubt as to the causative relationship.

IV. Vascular Derangements.—These may be either 1. Cardiac or 2. Peripheral, and, while not so very frequently seen as predisposing causes of eczema, the causative connection may often be traced in a very striking manner.

1. Cardiac Disorder.—Organic disease of the heart is not often thus traced, but sometimes the impeded circulation caused thereby will act in determining eczema of the extremities. Functional derangements of heart action are not at all uncommon in eczema patients, due often to the same causes as the eruption. How far their disturbance of circulation can aid in producing the skin changes cannot be stated, but as a perturbing element to the nervous system they cannot be without influence.

2. Disturbed Circulation.—The effect of varicose veins in inducing eczema of the lower extremities is well known, and often it is quite impossible to cure the eruption without mechanical support to them; surgical operations on dilated veins will sometimes be very effective in this regard. The effect also of hæmorrhoidal congestion in causing eczema of the anal region is very well recognized. Congestion of other parts, as of the face, is also often followed by eczema. A feeble and deranged circulation, indicated by cold and flabby extremities, is also often associated with eczema.

C. ACCIDENTAL CONDITIONS.—A number of very different elements are included here, which are often seen to be instrumental in bringing on the eruption of eczema. These relate to 1. Faulty nutrition; 2. Disturbing occupation, and 3. Disease.

I. Faulty Nutrition.—Here are included (1) erroneous, (2) excessive, and (3) deficient food and drink. While there are few definite data in regard to the actual production of eczema by specific forms of diet, no one who has carefully observed and recorded the facts relating to many of these patients in private practice can doubt the very intimate relationship between the eruption and the nutrition of the patient. This is abundantly observed in infantile eczema and may be noted at every period of life.

Erroneous, Excessive, and Deficient Food and Drink.—In the next section these will be more fully considered in connection with the exciting causes of the eruption. They are here mentioned as indicating their influence even when slight, and extending over a long period of time, in predisposing to the eruption.

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* Imperfect or Deficient Urinary Excretion, as Observed in Connection with Certain Diseases of the Skin, with Report on 2,000 Analyses. *Jour. of Cutaneous and Genito-urinary Dis.*, March, 1900.

(*To be concluded.*)

AN OPERATION DEVISED FOR THE TREATMENT OF MARKED PROLAPSE OF THE RECTUM IN WOMEN.*

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THE treatment of exaggerated rectal prolapse has taxed the most skillful surgeons of the world. Various methods in the way of plastic operations and the application of the cautery and many ingenious devices have been resorted to, but generally these have been inadequate and unsatisfactory, even when repeated a number of times on the same patient. Generally, resection of the rectum from below has been the best plastic procedure, but this has failed even when repeated. This procedure is much like shortening a drainage-tube by frequent amputations. In 1889 Jaennel (*Gazette hebdomadaire de médecine et de chirurgie,* xxvii, 1890, p. 246) proceeded by a different method, one original with himself, I believe, and one which bids fair to meet with favor in the surgical world.

Instead of pulling down and cutting off the end of a loose rectum, as had been done previously, he elevated and fixed the colon to an artificial-anus wound in the iliac region. Bryant, of New York (*Annals of Surgery,* xxvi, 1897, p. 165), found records of twenty-nine cases, including his own, of operation by this method. In some of them the technique was slightly modified. These cases were all primarily successful. Omitting three cases in which dates are not given, we have twenty-six, reported from two weeks to two years after the operation, in which there was but one return (reported more than a year after the operation), with one partial return.

It has been urgently recommended to make an artificial anus at the same sitting, that suspension of the physiological function of the rectum might be attained. This was due to the belief that the usual attending rectal disease was greatly improved by such rest. This idea is no doubt correct. Indeed, Bryant noticed a proportionate return of the prolapse as the unnatural anus became smaller. This relapse should not occur, though this tendency may be considerable, if the bowel attachment is made to fascia instead of to peritonæum, as has been the rule in these operations. Again, if the area of the bowel adhesion is increased, such return would be less likely to occur. A considerable number of these attachments have been made to the epiploica and a few to the mesentery, certainly not structures exerting much resistance. The difficulty of closing these artificial ani is great, in even the small ones, requiring repeated operations. And in those sufficiently large to completely perform the function of the rectum it is still more difficult. This feature would seem, therefore, to be one to be avoided if possible. It produces a very troublesome condition, loathsome to the patient, and presages one or more operations. Then, too, the danger of ventral hernia at the site of the colotomy is great, often necessitating a severe subsequent operation.

In my case marked prolapse of the uterus was associated with hæmorrhoids and great procidentia of the rectum in a woman to whom the uterine appendages were of little value. No simple operation would have relieved the rectal condition while the uterus was in such a state of prolapse, and *vice versa.* These conditions thus associated caused me to resort to the unique radical procedure to be later described. While not applicable to all cases, as firm attachment of the uterus to the abdominal wall is necessary, a condition not consistent with safe childbearing, it has a limited field in rectal prolapse in women. It is not improbable that marked rectal prolapse, associated as it is with proctitis and tenesmus, is usually productive of some degree of uterine prolapse. This being true, this operation, so far as I am aware, the first of the kind, will have a sphere, though necessarily limited, in the treatment of these conditions. Removal of the appendages is not necessarily a feature of this operation, yet sterility should be certain or nearly so as an indication or justification. Though the patient is perfectly well, with no evidence of relapse, at the end of eight months, it is yet too early to record a perfect result. The prospect, however, is the brightest. The history of the case is as follows:

Sister V——, a Sister of Charity in a neighboring city, was thirty-five years of age. She had been treated unsuccessfully a number of years for prolapse of the rectum and uterus, and hæmorrhoids. When she came under my care she was suffering from large internal and external hæmorrhoids and a protruding roll of fully three inches of the rectum, that was thickened and much discolored. The uterus was of about normal size, with its cervix just behind the pubes and the fundus very low posteriorly. A few days later, on March 6, 1900, the operation was done. The hæmorrhoids were first removed, then the abdomen was opened by the usual subumbilical median-line incision. The left ovary was of about three times its natural size and largely consisted of numerous cysts. The appendages were removed and the uterus was firmly fixed to the abdominal wall by four strong interrupted catgut sutures, which passed through a considerable portion of the uterine fundus at the top and the principal fascia of the abdominal wall on either side of the incision. The rectum was now drawn upward until it was fairly tense, and was so held by an assistant until it was sutured to the cul-de-sac and posterior wall of the uterus up to the abdominal wall. This was done by a running catgut suture. It completely divided the retro-uterine pelvic cavity into two equilateral ones.

Dr. Emmet L. Holt Lectures in Cleveland.—At a recent meeting of the Cleveland Medical Society, Dr. Holt, the eminent writer on diseases of children, delivered an address.

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*Read at thirteenth annual meeting of the Southern Surgical and Gynæcological Association, held in Atlanta, Ga., on November 13, 14, and 15. 1900.

DELIRIUM TREMENS.

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BOSTON,
PHYSICIAN-IN-CHARGE OF THE WALTER BAKER SANITARIUM.

At the last meeting of the American Medical Association a paper was read on the treatment of acute alcoholism by large doses of digitalis. The writer of the paper reports ten cases thus treated in Bellevue Hospital, and he concludes that the results, in properly selected cases, are "exceptionally favorable." Two of these patients died—a mortality of twenty per cent. The two cases in which he says this treatment showed its "most beneficial effects" are described in substance as follows: Both patients were robust young men suffering with delirium tremens. The first one came to Bellevue Hospital late in the afternoon, and did not sleep till nine o'clock the next morning, a period of about fifteen hours. During all this time he was delirious and was "restrained," probably in a strait-jacket or a cell. The second of the two patients whose treatment was considered particularly successful was delirious twenty-four hours, during which time "the ordinary treatment of narcotics was followed, with no effect." Digitalis was then prescribed with no better results than in the first case, many hours of delirium under restraint preceding sleep.

If such results in the treatment of delirium tremens are considered so exceptionally favorable as to warrant their report to the American Medical Association, it would be interesting to learn what results are deemed ordinary. If so excellent a hospital as Bellevue can do no better than this, what can be expected of hospitals that are less fortunately situated and less thoroughly equipped? To allow a delirium tremens patient to remain shackled in sleepless delirium from six P. M. to nine o'clock the next morning is inexcusable and cruel. Several mistakes, in my opinion, were made in the treatment of these patients, mistakes which, perhaps, are made in many hospitals.

First, such patients should be put to sleep soon after their arrival, which can be done with apomorphine in a few minutes without danger and without emesis. The "stream of consciousness" can be shut off with valve-like precision by the use of this remedy, and sleep is the one specific for delirium tremens. My method of employing apomorphine for this purpose, I have fully described in articles published in various medical journals of this country and Europe. (See, especially, *New York Medical Journal*, October 28, 1899, and March 17, 1900; also *Lancet*, April 14, 1900, etc.) Secondly, patients should not be restrained by physical force. This not only adds to their suffering, but increases and prolongs the delirium. It is needless, ineffective and cruel. Thirdly, whiskey or alcohol in some other form should be prescribed, as sudden withdrawal aggravates the disease and frequently causes it. The records of death furnished by police stations where drunken men are suddenly deprived of liquor, supply abundant proof of the danger attending such a course. Fourthly, the patients should be nourished with milk, egg-nog, or some other liquid food. Delirium tremens seldom affects those who have not been deprived of proper nourishment for some time. Hence easily assimilable food is indicated. One case will sufficiently illustrate my methods:

M. A., after a spree, placed himself in the hands of an excellent Boston physician and a trained nurse. The physician at once prohibited the use of all forms of alcoholic liquor, and prescribed the ordinary narcotics hypodermically and by the stomach. This treatment continued one week, during which time he slept but little and suffered with hallucinations. During the last forty-eight hours of that period he had continuous delirium and did not sleep at all. His physician then sent him to our sanitarium. I at once prescribed whiskey and milk, and administered the apomorphine treatment. In fifteen minutes he voluntarily lay down and immediately went to sleep. He slept five hours, and when, at 6 P. M., I awoke him to give him nourishment, I found him greatly improved in every way, with but slight traces of hallucination. At 10 P. M., I again administered the same hypnotic treatment and he promptly went to sleep as before, sleeping all night. In the morning he was perfectly sane.

These methods are the result of my experience in the treatment of hundreds of alcoholics in all forms of the disease. In delirium tremens I never use forcible restraint, never suddenly withdraw alcohol, and have never had a death.

WARREN CHAMBERS.

PHŒNIX, ARIZONA, AS A HEALTH RESORT FOR TUBERCULOUS PATIENTS.

By E. PAYNE PALMER, M. D.,
PHŒNIX, ARIZONA.

When I was told to leave St. Louis and to go to Phœnix, Arizona, to derive climatic benefit for an incipient tuberculosis, as I had never heard of the place, my first thought was of the kind of place it was to go to, and the next, and one of greater importance, was the kind of climate I was to find.

The physicians that advised the change could give me no definite idea of the place or its climate. They could only say from all they knew of the place, which was very little, that it was the best place they were acquainted with for my trouble.

Since I have been here, I have found that patients sent here from all parts of the country by some of our best physicians, are entirely ignorant of the place and climate they have come to.

Judging from those facts, I take for granted that there are hundreds of our best physicians, over the country, that know little or nothing of either the place or climate.

After describing both as best I can, they can judge for themselves whether they think it the place to which to send their tuberculous patients.

Being a Western Territory, and situated as it is, Arizona is supposed to be a wild and lawless country and one that is not the place for people of refinement and culture to live in. Those coming here with such an impression will find things entirely different. Phœnix, the capital of Arizona, is a very pretty town with a population of about 12,000, situated between two ranges of the Rocky Mountains in the centre of a large plateau known as the Salt River Valley. The town can be said to be a modern one, for in it are to be found most of the improvements, conveniences, and amusements of our large Eastern cities. Osler writes that the requirements of a suitable climate for tuberculous patients are pure air, an equable temperature not subject to rapid variations, and a maximum amount of sunshine. Given these three factors, he says, it makes little difference where a patient goes so long as he lives an outdoor life.

Phœnix can boast of possessing all three requirements of this great authority, and to them can be added the lowest relative humidity, the highest mean temperature, and the slightest wind movements.

No purer air could be desired or obtained than is afforded by this vast plateau, surrounded as it is by mountains. It has bracing and tonic qualities that are noticed at once. The transition of the seasons is slow and gradual, and marked changes in the daily temperature known as "cold waves," are unknown.

The difference between the temperature of the day and night is quite marked both in winter and summer, because of the clearness of the sky and the dryness of the atmosphere. This is the most objectionable feature that the climate has for a tuberculous patient, but, with proper care and prudence, one need have no fear of it, even during the winter.

The high temperatures that are sometimes observed during the summer months are mitigated to a great extent by the prevailing low relative humidity, so that the oppressiveness of the heat is not to be compared to the high temperatures sometimes observed in our Eastern States. Sunstroke is of very rare occurrence, even when the heat is greatest.

During the winter months the noonday temperature is about 65° F., and heavy frost is very rare.

Most of the time can and should be spent out of doors. During the summer, the prevailing custom is to sleep in screened sleeping houses or on screened porches. Many live in tents throughout the year and derive great benefit from doing so.

Phœnix is within the area of the highest percentage of possible sunshine and the lowest relative humidity of any other location in the United States for which records are taken. The average percentage of possible sunshine for 1899 was 85, with a range of from 77 for December to 91 for March and May. During July of this year, the average percentage of possible sunshine was 93. The average percentage of relative humidity for 1899 was 36, with a maximum of 49 per cent. for January and a minimum of 22 per cent. for May.

The accompanying data will give a correct idea of the annual temperature:

CLIMATOLOGICAL DATA FOR PHŒNIX, ARIZONA, FOR YEAR 1899.

MONTHS.	TEMPERATURE.																	PRECIPITATION.		RELATIVE HUMIDITY.	WEATHER.				SUNSHINE.	WIND.
	MEAN.				EXTREMES.		MEAN.			Normal.	MEAN.															
	Dry Bulb.		Wet Bulb.		Highest.	Lowest.	Maximum.	Minimum.	Monthly.		Below 32.	Above.														
	8 a. m.	8 p. m.	8 a. m.	8 p. m.								41	50	59	68	77	90	TOTAL.	Normal.	MEAN.	Clear.	Pt. Cloudy.	Cloudy.	.01 inch or over.	Percentage of Possible.	Average Hourly Velocity.
January.......	40	59	35	46	73	27	63	37	50	49	0	31	16	0	0	0	0	1.28	0.57	49	21	4	6	3	85	3.7
February......	41	64	36	47	79	24	67	39	53	54	0	26	21	4	0	0	0	.10	.89	40	17	8	3	2	87	4.8
March.........	48	72	39	51	86	33	74	46	60	61	0	31	30	19	2	0	0	T	.68	32	23	4	4	0	91	5.0
April..........	56	81	44	56	95	42	84	54	69	67	0	30	30	27	18	1	0	T	.30	28	19	7	4	0	83	5.0
May...........	56	84	44	56	101	39	86	56	71	75	0	31	31	29	22	5	0	.00	.16	22	25	5	1	0	91	4.9
June...........	72	96	58	66	110	52	99	70	85	83	0	30	30	30	28	26	5	.75	.07	32	23	6	1	4	90	5.1
July...........	80	101	69	72	112	68	104	78	91	90	0	31	31	31	31	31	19	.87	.85	40	15	16	0	6	78	4.7
August........	75	98	63	70	108	67	101	74	88	88	0	31	31	31	31	31	4	.89	.97	38	25	5	1	5	87	4.5
September....	73	98	59	67	112	60	101	72	86	81	0	30	30	30	30	30	2	.37	.54	31	21	9	0	2	87	4.1
October........	58	77	49	57	96	40	82	56	69	69	0	31	31	28	15	4	0	.30	.62	40	21	3	7	5	78	4.3
November.....	49	69	42	53	85	40	75	47	61	58	0	30	30	15	0	0	0	.55	.44	46	18	11	1	3	87	3.7
December.....	42	61	35	46	75	28	67	39	53	53	0	31	22	1	0	0	0	.08	1.12	38	17	8	6	2	77	3.3
Year..... .	58	80	48	57	112	24	84	56	70	69	0	363	333	245	177	128	30	5.19	7.21	36	245	86	34	32	85	4.4

The wind movements are gentle and regular, and high winds are of infrequent occurrence.

It is my opinion that Arizona, as a whole, has no equal in any part of the United States as a health resort for certain diseases.

One of the great advantages offered by it is the attainable variation in altitude with the same general conditions as to temperature and dryness of atmosphere.

Yuma is at sea level; Phœnix has an altitude of 1,108; Tucson, of 2,400; Prescott, of 5,400, and Flagstaff, of 6,800.

Those objecting to warm summer weather at Phœnix, will find Prescott or Flagstaff very pleasant places in which to spend their summers. Being at a higher altitude and situated in the mountains further to the north than Phœnix, both places have the advantage of cooler and more pleasant summer weather.

With the various means of diagnosis which we have at our command, no case of incipient tuberculosis should remain undiscovered. There is no more important subject in medicine to-day than that of the early diagnosis of pulmonary tuberculosis, for upon that depends the success of its treatment.

I should like to write more on this very important subject, but as this paper must be brought to a close, I will simply say: Send your cases in their incipiency if you look for good results. Most cases of incipient tuberculosis that come here and have the proper amount of care and treatment, recover. Those in the second stage, or stage of softening, show marked improvement, and many, after a sufficient time, can be said to be practically cured. The advanced cases should not be sent, as they derive very little benefit, so it is best that they remain at home, where they can have home comforts and friends to look after their wants.

Some patients are sent here with the idea that the climate will "do all." That is a great mistake. The climate will do a great deal, but, to get the best results, it must be supplemented by the proper diet, exercise, rest, baths and treatment, as deemed necessary to suit each case.

108 NORTH CENTER STREET.

Therapeutical Notes.

A Mixture for Meteorism in Infants.—Freyberger's formula is given as follows in the *Journal de médecine de Paris* for October 21st:

℞ Sodium sulphocarbolate	4 to 8 grains;
Syrup of bitter orange peel	1½ drachm;
Distilled peppermint water	6 drachms.

M. S.

A coffeespoonful three times a day for two successive days.

Guaiacol in Chronic Cystitis. –Gabriel Colin (*Journal de médecine de Paris,* October 21st) recommends the following formula in cases of painful chronic cystitis, especially of the tuberculous form:

℞ Guaiacol	1 part;
Sterilized oil of sweet almonds	20 parts.

M.

From a quarter to half a teaspoonful to be injected into the bladder once or twice a day.

An Excitant Mixture.—The *Journal des praticiens* for October 27th gives the following formula:

℞ Hoffmann's anodyne	8 parts;
Tincture of nux vomica	2 "
Tincture of cinnamon	8 "
Tincture of vanilla	2 "

M. S.

From eight to ten drops three times a day.

Wafers for Trigeminal Neuralgia.—Hirschkron (*Journal de médecine de Paris,* October 14th) gives the following formula:

℞ Extract of cannabis indica	7½ grains;
Salicylic acid	75 "

M. Divide into ten wafers.

S. One to be taken three times a day.

Ichthargan in the Treatment of Gonorrhœa.—Leistikow (*Monatshefte für praktische Dermatologie,* xxxi, 4; *Centralblatt für Chirurgie,* October 27th) recommends this new compound of ichthyol and silver, from a 0.02-per-cent. to a 0.2-per-cent. solution in water, for frequently repeated injections in acute gonorrhœæa of the anterior urethra. He says it speedily kills the gonococci and changes the purulent into a serous discharge, and in some cases it almost aborts the disease.

Suppositories for Chronic Prostatitis.—The *Journal de médecine de Paris* for October 14th gives Freudenberg's formula as follows:

℞ Ichthyol	5 to 12 grains;
Cacao butter	52 "

M.

Such a suppository to be inserted twice a day, after the morning evacuation and at bedtime; if a movement occurs in the middle of the day, a third suppository may be used after it.

Dionine as a Sedative, Analgetic, and Hypnotic.—Krijewski has made dionine the subject of his graduation thesis (*Gazette hebdomadaire de médecine et de chirurgie,* October 21st). He regards it as superior to codeine. The hydrochloride is a fine white crystalline powder of a bitter taste, readily soluble in alcohol and moderately soluble in water, but readily precipitated from its watery solution. It is seldom necessary to give more than a grain and a fifth in twenty-four hours, and commonly from a third to two-thirds of a grain will prove sufficient.

For Locomotor Ataxia.—Dr. S. Leduc, professor of medicine in the School of Medicine at Nantes (*Gazette médicale de Nantes,* August 18th), basing his practice on the theory that "the syphilitic origin of locomotor ataxy is scarcely contested to-day, for a past history of syphilis is found in nearly all ataxics," has injected daily into the muscles of the patient's thigh, two grammes (about thirty minims) of the following solution:

℞ Corrosive sublimate, Recrystallized sodium chloride,	each. 3 grains;
Distilled water	300 minims.

M.

It is said that an amelioration was at once manifest. Treatment was continued for periods of three weeks, followed by remissions of fifteen days. Six years from the commencement of the treatment the patient has lost the knee-jerk, and, though some lightning pains persist, he walks well, even at night, and leads a very active life.

For Facial Erysipelas.—Dr. Desesquelle (*Répertoire de pharmacie,* October 10, 1900) reported recently to the French Therapeutical Society his own experience of the value of local applications upon the erysipelatous parts and surrounding tissues, of the following preparation:

℞ Camphorated oil	465 minims;
Crystallized guaiacol, Menthol,	of each 15 grains.

M.

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THE RECENT MEDICAL RELIEF WORK IN GALVESTON.

WE have seen a printed statement—a true one, we hope—to the effect that in the recent terrible disaster in Galveston not one of the physicians of the city lost his life. Certain it is that our Galveston brethren kept possession of their wits and worked most effectively for the relief of the injured. In the November number of the *New Orleans Medical and Surgical Journal* Dr. Isadore Dyer, of New Orleans, gives an interesting sketch of their work in conjunction with that of physicians and nurses who volunteered from various parts of the country, and he suggests that at some future time the medical men in Galveston may think it important to record the totality of the relief work done there under the stress of the emergency. He feels sure that the study of injuries and other emergency cases there made will furnish items of value from the statistical and historical points of view, if not from the clinical.

It seems that, although the loss of life was fearful, comparatively few persons who survived the storm were found to have been seriously injured; among those treated in the custom house emergency hospital there were no deaths, and when that extemporized hospital was closed very few of its inmates had had to be transferred to a regular hospital. Dr. Dyer calls to mind the fact that the storm was of such a character that many of the dangerously injured who might otherwise have been borne away alive were drowned. This would appear to account for the rarity of serious injuries among the survivors, and it may perhaps be looked upon as a merciful feature of the disaster. As is usual under calamitous circumstances, some persons applied for medical treatment and received it, although theirs were not properly emergency cases; as we may well imagine, the conditions were such that discrimination was out of the question. Among the wounds of which Dr. Dyer specifies the character, thirty-seven were incised, ten were contused, seven were lacerated, and nine were punctured. Leaving out cases of crushing, there were six fractures, but there was only one dislocation, and that was of the thumb.

The world had hardly heard of the calamity, says Dr. Dyer, when the local physicians were organized for the dispensary and hospital care of the sick and wounded. Those whom he mentions as having taken part in the work are Dr. C. W. Trueheart (who, as chairman of a meeting of physicians, cooperated with them, and with the city board of health as an auxiliary committee), Dr. C. H. Wilkinson, Dr. H. A. West, Dr. George H. Lee, Dr. A. F. Sampson, Dr. John Hayden, Dr. H. P. Cooke, Dr. Edward Randall, Dr. G. A. Dillinger, Dr. W. C. Fisher, Dr C. T. Peckham, and Dr. W. L. Rogers. Among the names of volunteers from other places we find those of Dr. C. P. Wertenbaker, of the New Orleans station of the Marine-Hospital Service; Dr. R. H. Harrison, of Coleman, Texas; Dr. H. A. Cassett, of Jersey City; Dr. John B. Sewell, of Franklin, Louisiana; Dr. A. R. Kuykendall, of Morgan, Texas; Dr. Lambkin, of Alabama; and Dr. S. L. Cash, Dr. F. L. Christian, and Dr. Houghton, of New York. Besides those mentioned by Dr. Dyer, many medical men from various parts of the country hastened to the scene of the calamity, and, so far as we have been informed, their promptness and assiduity were such as could hardly be surpassed; certainly, they were deserving of high commendation.

THE NATIONAL TAX ON BENEFICENT LEGACIES.

THE war revenue act of 1898 imposed a tax on legacies to educational, charitable, and religious organizations. Many of the educational and most of the charitable institutions conduct their beneficent work largely through the medium of the medical profession, and, to enable the medical men concerned to afford to their sick and injured fellow-men the utmost relief that medical science is capable of rendering, the medical schools, hospitals, and dispensaries in which they work must have the richest attainable endowments. Even many of the religious organizations effect much of their good through the instrumentality of physicians, not only among our own people, but also in the missionaries' fields. Hence anything that tends to deprive such institutions of a portion of their pecuniary resources hampers the medical men connected with them in dispensing aid to the unfortunate and the suffering.

At the last meeting of the Congress of American Physicians and Surgeons a committee consisting of Dr. Frederick C. Shattuck, of Boston, Dr. Abraham Jacobi, of New York, and Dr. William H. Welch, of Baltimore, was appointed to urge upon the Congress of the United States the repeal of those provisions of the war revenue act which lay the tax in question. The committee has issued to every member of the Congress of American Physicians and Surgeons a circular, dated November 1st, asking him to exert his utmost influence with any members of the Congress of the United States whom he feels at liberty to address personally or by letter on the subject of such repeal. The circular sets forth that a petition in favor of the repeal has been introduced into the Senate by Senator Lodge, and that a copy of it is in the hands of the Hon. Mr. Payne, chairman of the Committee on Ways and Means of the House. The practicability of the repeal without interfering with the intent of the act as a whole is tersely put by the committee in this statement: "The revenues of the government are admittedly unnecessarily large, and commercial interests will not be idle."

It is not alone the members of the Congress of American Physicians and Surgeons who should use their best endeavors to bring about the repeal; every physician in the United States should join in the work, for each one shares in the glory that redounds to medicine because of its good deeds to the poor that are sick or injured, crippled or disabled, by reason of some physical defect. We hope the committee's appeal will meet with the earnest cooperation of the profession at large and with that of the representatives of the educational, charitable, and religious organizations which the repeal sought for would strengthen in their work. There may be other directions in which the war taxes of two years ago may safely and properly be discontinued, but there can be no doubt, we think, that the tax on legacies that are intended to be for the benefit of the whole people should be the first one to be done away with.

THE ISOLATION OF CONSUMPTIVE CONVICTS.

Whether our object in incarcerating criminals is punitive or reformatory, we have no right to expose them to disease, yet this is what we are doing when we fail to protect those of them who are healthy from infection. In the universal campaign that is now being waged against the spread of consumption, let us not forget the prisoner, whose lot necessarily unfits him almost entirely to resist infection. There are some of us who have not forgotten him. Prominent among such large-hearted physicians is Dr. W. H. Blake, of the Board of Inspectors of Convicts of Alabama. Last April Dr. Blake read before the Medical Association of the State of Alabama a paper entitled The Need of a Separate Prison for Consumptive Convicts, which was published in the September number of the *Alabama Medical Journal* and has now been reprinted in pamphlet form. This is not the first time that Dr. Blake has brought the subject before his State association; he has urged its importance repeatedly, and he deserves the gratitude of us all for having done so, as well as our hearty cooperation in his efforts to ameliorate the condition of criminals.

Dr. Blake points out that, according to the last national census, consumption causes 17 per cent. of all the deaths among our free population, while among convicts, according to recent reports, it gives rise to the following percentages of deaths: In Mississippi, 20; in Arkansas, 20; in Florida, 30; in Ohio, 31; in Michigan, 33; in the Allegheny County Workhouse, Pennsylvania, 33⅓; in Virginia, 41; in Kentucky, 42; in Joliet, Illinois, 70; in the Huntsville Penitentiary, Texas, 66; in the Rusk Penitentiary, Texas, 33; in Washington, 16; in Connecticut (in 1898), 60; and in Tennessee, 65. He adds that in the year 1897 every death that occurred in the penitentiary of Connecticut was caused by consumption.

"Prison management in Alabama," says Dr. Blake, "furnishes conditions specially favorable to the propagation of consumption. Convicts are not kept in separate cells, but from fifty to one hundred are confined together in a single large cell. Consumptive convicts, unless acutely ill, are confined in the same cells with the well convicts. An effort is made to cause those expectorating to spit into cuspidors containing a disinfectant, but this cannot be enforced. The results are a prison atmosphere full of the germs of consumption, an alarming death rate from that disease, and this death rate on the increase." We are sure that the people of Alabama would not countenance the perpetuation of this shocking state of affairs if they realized its significance. Dr. Blake expresses his conviction that nothing short of a separate prison or camp for consumptive convicts, and that not on the same grounds with the prison for others, will put a stop to this standing invitation to Death, and in this we think he is probably right. Moreover, we are confident, with him, "that a humane and intelligent citizenship will indorse the administration that carries out the prison reform suggested." Let it not be supposed that Alabama is the only State in which prison management from the sanitary point of view is defective; it is to be feared that there are few penal institutions anywhere in which there is not room for improvement.

THE ENDOWMENT OF RESEARCH INSTITUTIONS.

There is seldom any great lack of funds forthcoming to enable the hospitals to prosecute their practical beneficence; the wealthy layman sees that results are accomplished by them, and he is willing to "give, give, give." As to the work of investigating the causes of disease and searching for means for their prevention, the layman is not usually able to perceive that any practical good is likely to come from it, although medical men realize its vast importance. Speaking of this state of things, the *Lancet,* in its issue for September 22d, well says: "In Glasgow a few cases of plague have appeared. Where is the panic that such an event would have occasioned a hundred or even fifty years ago? It does not exist. Why? Because medical science has defined the danger and the way to deal with it." As our London contemporary points out, Mr. Andrew Carnegie sees the distinction between lay generosity toward institutions that turn out immediate results and lay hesitation with regard to institutions for research, and has himself most nobly shown his ability to take a higher view of the relative importance of the two by his recent endowment of a research laboratory in New York.

DANGER FROM THE ALVINE DEJECTIONS OF DIPHTHERIA PATIENTS.

Schoedel (*Münchener medicinische Wochenschrift,* 1900, No. 26; *Berliner klinische Wochenschrift,* October 15th) has found diphtheritic bacilli in the fæces of children who have died of diphtheria manifested in the throat, and this fact is properly regarded as indicating that the disease may be spread by particles blown about from the dejections.

THE MILITARY HELMET IN THE EAST.

The *Army and Navy Journal* quotes from the correspondence of the *Evening Post* certain statements that seem to show how reckless our soldiers in the Orient often are in the matter of declining to wear the helmet provided for them by the government. Those nations that have had the most experience in the East rely largely on the helmet for the protection of their soldiers against the tropical sun, and it is much to be deplored that our officers do not more generally instruct the men in their commands concerning its unquestionable superiority over the hat worn on home stations.

THE REPORTING OF TUBERCULOUS DISEASE IN MICHIGAN.

The secretary of the Michigan State Board of Health, Dr. Henry B. Baker, has recently been quoted as having said that in 1893 the board passed a resolution to the effect that after that time tuberculous disease should be included in the official list of "diseases dangerous to public health" referred to in the law requiring notice to be given by householders and physicians to the local health officers immediately on the recognition of cases of such disease. Dr. Baker now says that the requirement has not been fully complied with throughout the entire State; nevertheless, he believes that it is partly in consequence of that action by the board that the death rate from tuberculous disease in the State has been reduced by rather more than ten per cent., and its prevalence still more.

THE NEW VOLUME OF THE *INDEX-CATALOGUE.*

Volume V of the second series of the *Index-Catalogue of the Library of the Surgeon-General's Office, United States Army,* which has recently been issued, carries the vocabulary from "Enamel" to "Fyuner." It has been prepared under the direction of Surgeon James C. Merrill, and shows the same fullness and accuracy that have characterized the previous volumes. The text is preceded by the fifth addition to the alphabetical list of abbreviations of titles of medical periodicals published in Vol. XVI of the first series.

THE BRITISH *MEDICAL REGISTER.*

The *Lancet,* in its issue for October 27th, calls attention to numerous inaccuracies in the *Medical Register* of the United Kingdom, many of which consist in the retention of the names of those who have long been dead. Every year, it seems, the registrar issues "important notices" calling for information to date, but in many instances his words go unheeded. Numbers of the profession do not hand in their names, and our contemporary recommends "the penalization of the indifferent," which, it appears, is practicable under the law.

HÆMORRHOIDS IN INFANCY.

As the *Berliner klinische Wochenschrift,* in its issue for October 15th, well remarks, hæmorrhoids in early infancy are extremely rare, but it cites from the *Münchener medicinische Wochenschrift,* 1900, No. 12, an instance observed by Burwinkel in a child that had always been constipated. Appropriate diet and massage of the large intestine caused the hæmorrhoidal nodes to disappear, and concomitantly the child's nutrition and general condition in other respects improved.

TRAUMATISM AND ALIMENTARY GLYCOSURIA.

The interesting observation is reported by Haedke (*Deutsche medicinische Wochenschrift,* 1900, No. 31; *Berliner klinische Wochenschrift,* October 15th) that in twenty-five cases of accidental injury the ingestion of three ounces of chemically pure grape sugar on the day following the traumatism gave rise to glycosuria in sixty per cent., but that after the lapse of a week it could be produced in only one instance. The influence of traumatism in predisposing to this condition is certainly interesting; it may have something in common with that of the puerperal state.

News Items.

Society Meetings for the Coming Week:

MONDAY, *November 19th:* New York Academy of Medicine (Section in Ophthalmology and Otology); New York County Medical Association; Hartford, Connecticut, Medical Society; Chicago Medical Society.

TUESDAY, *November 20th:* New York Academy of Medicine (Section in General Medicine); Buffalo Academy of Medicine (Section in Pathology); Ogdensburg, New York, Medical Association; Syracuse, New York, Academy of Medicine; Medical Societies of the Counties of Chemung (quarterly), Kings, Livingston (quarterly), and Westchester (quarterly), New York; Baltimore Academy of Medicine.

WEDNESDAY, *November 21st:* Medico-legal Society, New York; Northwestern Medical and Surgical Society of New York (private); New Jersey Academy of Medicine (Newark).

THURSDAY, *November 22d:* New York Academy of Medicine (Section in Obstetrics and Gynæcology); New York Orthopædic Society; Brooklyn Pathological Society; Brooklyn Society for Neurology; Roxbury, Massachusetts, Society for Medical Improvement (private); Pathological Society of Philadelphia.

FRIDAY, *November 23d:* New York Clinical Society (private); New York Society of German Physicians; Yorkville Medical Association, New York (private); Philadelphia Clinical Society; Philadelphia Laryngological Society.

SATURDAY, *November 24th:* New York Medical and Surgical Society (private).

An Osteopath Fined in Wisconsin.—Swen A. L. Thompson has been fined $50 and costs in a police court at Milwaukee, Wis., for violating the Wisconsin statutes by using the title "Dr." without having obtained a license from the State Board of Medical Examiners. It is stated that the case will be carried up to the Supreme Court on appeal.

Quarantine against Chinese Emigrants.—Colorado still keeps up its bubonic plague quarantine against Chinese emigrants coming in through California, and the railroad authorities have been warned not to allow any Chinamen to enter the State without health certificates showing that they have not been exposed to plague during the six weeks immediately preceding their departure from the city whence they came.

Sought Purchasers for Medical Certificates.—Dr. Henry Wilson, of Randolph, Kan., who was arrested several weeks ago and charged with a fraudulent use of the mails, in advertising blank medical certificates to any who would buy them, has been found guilty in the United States court in Leavenworth.

Increased Clinical Facilities at the Philadelphia Hospital.—The Philadelphia Board of Charities and Corrections has adopted regulations looking toward an increase in the number of clinical lectures given at the Philadelphia Hospital. The new regulations are to the effect that clinical teaching under regulations arranged with the superintendent is to be an obligation assumed by every member of the visiting staff, and can only be omitted by members of the staff after special arrangement with the superintendent. The general clinics, bedside and pathological instructions, are free to all students of medicine registered at Philadelphia medical schools. The general clinics will be held in the hospital amphitheatre on Wednesday and Saturday of each week during the college year, between the hours of 9 A. M. and 12 o'clock noon. Various other liberal provisions for the instruction of students are also made.

A Doctor Captured by Bank Burglars.—Dr. G. H. Albright, of Barboursville, Ky., had a rather unpleasant experience recently. He was returning from a night call, and had occasion to pass in front of a bank. Just as he reached the door, four men rushed out, seized him, and after binding and gagging him, thrust him into a vault and closed the door. They were burglars, and were probably afraid the doctor would see them at work and call the police. He was released in the morning.

Hospital Employees Permitted to Vote.—The writs of habeas corpus and certiorari obtained on behalf of Dr. Albert Sellenings, of Bellevue Hospital, New York, and of two trained hospital nurses and two hired helpers at Bellevue, who had been held in bail of $100 each on the charge of having illegally registered, having given their place of residence as Bellevue Hospital, were sustained by Justice Andrews in the Supreme Court. The cases were in the nature of test cases and affect 143 voters from Bellevue and 413 in other city institutions. The result of the decision is the vindication for the 557 persons objected to, of their right to vote.

Alcoholic Patients not Desirable Neighbors.—Dr. W. M. Richards, who was for some time connected with the alcoholic ward in Bellevue Hospital, opened a sanitarium on Gramercy Square, a short time ago, for the care of inebriates. Unfortunately for the success of the venture, his aristocratic neighbors strenuously objected, as the boarders were inclined to be obstreperous and noisy, principally at night, when the ordinary mortal looks for rest and quiet. As Dr. Richards's patients used Gramercy Park as a rejuvenating ground, the wealthy residents made a protest to the directors of the Gramercy Park estate, which resulted in a notice to quit being served upon the doctor.

Denver's Death Rate.—The report of the Denver health department for October shows: Deaths, 184; stillborn, 7. The deaths from tuberculosis numbered fifty-one, of which forty-one cases were contracted outside of Denver. The death rate per 1,000 per annum, excluding cases of tuberculosis contracted elsewhere, is 12.36. Ninety-one males and eighty-five females died during the month. The principal causes of death, aside from tuberculosis, were heart disease, thirteen; peritonitis, eleven; pneumonia, ten; intestinal obstruction, six. There was one death from scarlet fever, and two from diphtheria.

A Charitable Division for the Loomis Sanitarium.—It has been decided by the board of managers to erect a new building at Liberty, N. Y., to be known as the charitable division of the Loomis Sanitarium for Consumptives. The charitable division will at first accommodate twenty-two patients, but it is hoped that the accommodations may be enlarged later on. In this division the maximum rate to be charged will be $5 per week, which will include board, lodging and medical attendance. A portion of these twenty-two beds will be free from the start, and the number of free beds will be increased as rapidly as the financial condition of the institution permits. Any surplus income from the present sanitarium, which will be known as the self-supporting division, will be applied to the support of the charitable division.

Changes of Address.—Dr. Samuel Floersheim, to No. 218 East Forty-sixth street, New York; Dr. Frank A. King, to No. 472 West One Hundred and Forty-seventh street, New York; Dr. John S. Coman, to No. 860 East One Hundred and Sixty-fifth street, New York.

Loving Cup Presented to Dr. Fenger.—Dr. Christian Fenger, professor of clinical surgery in Rush Medical College, was given a banquet recently at the Auditorium Hotel, Chicago, by a number of physicians. The occasion was the sixtieth birthday of the guest. Almost one-third of the 500 men who gathered represented medical societies of Philadelphia, Cincinnati, Louisville, St. Louis, St. Paul, and other cities. A loving cup was presented to the doctor by his medical friends.

An American Member of the International Sociological Institute at Paris.—Dr. Edward A. Ross, who has been at the head of the Department of Economics and Sociology at the Leland Stanford University since 1893, has just been elected an associate member of the International Sociological Institute at Paris. There are only five other members of this society in the United States.

A Post-office Physician in Minneapolis.—Dr. C. H. Williams, who was recently appointed post-office physician in Minneapolis, has received instructions in his capacity as civil service physician. He will furnish free medical aid to all civil service employees, which includes the local postal force, and he will be required to inspect all branches of the post-office to see that they are kept in a sanitary condition. The physical condition of employees in the service will also be looked after.

A Mexican Health Officer Studying American Quarantine.—Dr. Manuel S. Iglesias, health officer of Vera Cruz, Mexico, paid a visit recently to the State quarantine station at Marcus Hook, Philadelphia, with a view of obtaining information as to the methods in vogue in Pennsylvania for preventing the introduction of contagious diseases from abroad. Dr. Iglesias is a retired army surgeon. He came to the United States as a delegate from Mexico to the meeting of the American Public Health Association at Indianapolis. Since the meeting he has been investigating quarantine matters in this country, having recently visited Buffalo and New York. He was accompanied to the station by the quarantine physician, Dr. Henry D. Heller, and Dr. Benjamin Lee, secretary of the State Board of Health. The doctor expressed himself as greatly pleased with the equipment of the station.

The Pan-American Medical Congress.—Dr. H. L. E. Johnson, Washington, D. C., chairman of the committee on transportation of the international executive committee, announces that he has secured a special reduction in rates for those who expect to attend the third Pan-American Medical Congress, which will be held in Havana, Cuba, from December 26 to 29, 1900. The Ward Line steamers have made a rate of $60 for the round trip from New York, including meals and stateroom. These steamers take five days in making the passage each way. It is proposed that a party leave Port Tampa on the steamer sailing thence at 11.00 P. M. December 22d.

Hospital Buildings and Endowments.—The trustees of the National Jewish Hospital for Consumptives at Denver met at Cincinnati recently and perfected a permanent organization. The following officers were elected: President, Samuel Grabfelder, Louisville; vice-presidents, S. W. Levy, Cincinnati, and Louis Gerstley, of Philadelphia; secretary, Alfred Mueller, of Denver; treasurer, Benjamin Altheimer, of St. Louis; executive committee, Leo A. Loeb, of Chicago; Philip Humberger, of Pittsburg, and Ignatius Rice, of New York, together with all of the officers as ex-officio members. The association has been incorporated in Denver.—Dr. Bazet, chairman of the hospital committee of the board of health and Health Officer O'Brien have informed the board of supervisors of San Francisco that the tract of land known as Bay View Farm in South San Francisco would be an ideal location for a hospital for contagious diseases.—The new hospital of the Sisters of St. Vincent, of Leadville, Col., is fast nearing completion and the day of its formal dedication is not far distant. It will, when completed, cost $40,000.—Mr. George Cary, architect, has filed plans at the bureau of building in Buffalo, N. Y., for a three-story brick addition to the northeast wing of the Buffalo General Hospital in High street. It is to cost about $35,000, and ground will be broken for it in a few days. It will be of yellow brick and terra cotta.—Over $1,000 was recently raised at a fair held in Ouray, Col., for the benefit of a new hospital to be built there.—The corner stone of the new deaconess's home and hospital at Lincoln, Ill., was laid recently. The building will cost $25,000, and the project is being directed by the congregation of St. John's Evangelical Lutheran church.—A fund of $6,000 has already been raised for the new buildings of the Batavia, N. Y., General Hospital.—At a recent meeting of the signers of the articles of association of the Farren Hospital corporation of Boston, these officers were elected: President, Bishop Beaven; vice-president, Bernard N. Farren; clerk, Rev. Mother Mary Leary; treasurer, Rev. Mother Catherine Horan; executive committee, Bishop Beaven, B. N. Farren, Catherine Horan, Mary Leary, Charles W. Hazelton, and Samuel L. Conant. As soon as the corporation is complete, the fine new hospital, equipment and land, the gift of B. N. Farren, which cost more than $100,000, will be conveyed to the corporation. The hospital will be in readiness to receive patients in December. No action has yet been taken in relation to the medical staff. The hospital will be in charge of the Sisters of Providence, and the Rev. Mother Catherine Horan will be the lady superior.

Marine-Hospital Service Health Reports.—The following cases of small-pox, yellow fever, cholera, and plague were reported to the surgeon-general during the week ending November 2, 1900:

Small-pox—United States.

Arapahoe County, Col......	Oct.	10-13.......	2 cases.
Costilla County, Col........	Oct.	15..........	1 case.
Ouray County, Col..........	Oct.	9-16.......	10 cases.
Wild County, Col...........	Sept.	1-30.......	2 "
Indianapolis, Ind............	Oct.	20..........	1 case.
Lexington, Ky..............	Oct.	27..........	2 cases.
Detroit, Mich...............	Oct.	20-27.......	1 case.
Delta County, Mich.........	Oct.	14-20.......	1 "
Maple River Twp., Mich....	Oct.	14-20.......	21 cases.
Manchester, N. H...........	Oct.	27..........	1 case.
Cleveland, Ohio.............	Oct.	20-27.......	27 cases
Salt Lake City, Utah.......	Oct.	20-27.......	9 "

Small-pox—Foreign.

Trieste, Austria	Oct. 6-13	1 case.	
Prague, Bohemia	Oct. 6-13	5 cases.	
Liverpool, England	Oct. 6-13	3 "	
London, England	Oct. 6-13	1 case.	
Paris, France	Oct. 6-13		6 deaths.
Solingen, Germany	Oct. 1-7	1 "	
Karachi, India	Sept. 23-30	1 "	
Mexico City, Mexico	Oct. 7-14	2 cases.	1 death.
Moscow, Russia	Sept. 29—Oct. 6	3 "	
Odessa, Russia	Oct. 6-13	17 "	1 "
St. Petersburg, Russia	Sept. 29—Oct. 13.	18 "	4 deaths.
Warsaw, Russia	Sept. 29—Oct. 6		13 "

Yellow Fever.

Havana, Cuba	Oct. 1-27	274 "	67 "
Mexico City, Mexico	Oct. 7-14		1 death.
	Oct. 14-21	4 "	1 "

Cholera.

Bombay, India	Sept. 26—Oct. 2		54 deaths.
Karachi, India	Sept. 17-23	4 "	3 "

Plague—United States.

San Francisco, Cal	Oct. 14		1 death.

Plague—Foreign and Insular.

Hongkong, China	Sept. 1-8	4 "	4 deaths.
Bombay, India	Sept. 26—Oct. 2		86 "
Osaka, Japan	Sept. 11-29	26 "	
Tamatave, Madagascar	Oct. 16	Reported present.	
Manila, Philippine Islands	Sept. 7-15	1 case.	
Glasgow, Scotland	Oct. 13-19	14 cases.	1 death.
Perth, West Australia	Apr. 7—Aug. 11	6 "	3 deaths.

The following cases of small-pox, yellow fever, cholera and plague were reported to the surgeon-general during the week ended November 9, 1900:

Small-pox—United States.

Arapahoe County, Col	Oct. 13-25	5 cases.	
Elber County, Col	Oct. 19	1 case.	
Sagnache County, Col	Oct. 14	1 "	
Washington, D. C	Nov. 3	1 "	
Wichita, Kan	Oct. 27—Nov. 3.	3 cases.	
Lexington, Ky	Oct. 27—Nov. 3	2 "	
New Orleans, La	Oct. 27—Nov. 3	2 "	
Taunton, Mass	Oct. 27—Nov. 3	1 case.	
Detroit, Mich	Oct. 27—Nov. 3	1 "	
Cleveland, Ohio	Oct. 28—Nov. 3.	1 "	
Portland, Ore	Oct. 31	1 "	
Sioux Falls, S. D	Six months ended Oct. 31	1 "	
Salt Lake City, Utah	Oct. 27—Nov. 3	5 cases.	
Memphis, Tenn	Oct. 27—Nov. 3	1 case.	

Small-pox—Foreign.

Prague, Bohemia	Oct. 13-20	2 cases.	
Liverpool, England	Oct. 13-20	2 "	
West Hartlepool, England	Oct. 13-20	1 case.	
Paris, France	Oct. 13-20		11 deaths.
Athens, Greece	Oct. 6-13	1 case.	
Resina, Italy	Oct. 24	Black small-pox reported present.	
Mexico City, Mexico	Oct. 14-21	1 case.	
Vera Cruz, Mexico	Oct. 20-27	3 cases.	1 death.
Moscow, Russia	Oct. 6-13	1 case.	2 deaths.
Odessa, Russia	Oct. 13-20	4 cases.	4 "
Warsaw, Russia	Oct. 6-13		18 "
Glasgow, Scotland	Oct. 19-26	29 "	2 "
Spain	Oct. 13-20		1 death.

Yellow Fever—United States.

Natchez, Miss	Nov. 6	1 case.	

Yellow Fever—Foreign and Insular.

Barranquilla, Colombia	Oct. 13-21	2 cases.	2 deaths.
Bocas del Toro, Colombia	Oct. 24	1 case.	
Gibara, Cuba	Oct. 16		1 death.
Havana, Cuba	Nov. 2	16 cases.	1 "
Sagua, Cuba	Nov. 2	1 case.	
Mexico City, Mexico	Oct. 14-21		1 "
Tampico, Mexico	Oct. 21-28	3 cases.	1 "
Vera Cruz, Mexico	Oct. 20-27	12 "	7 deaths.

Cholera.

Bombay, India	Oct. 9		30 "
Karachi, India	Oct. 7	3 "	2 "

Plague—United States.

San Francisco, Cal	Oct. 14—Nov. 6		4 "

Plague—Foreign and Insular.

Bremen, Germany	Nov. 6	One death from plague, a seaman on a vessel from Buenos Ayres.	
Bombay, India	Oct. 2-9		87 deaths.
Kobe, Japan	Nov. 2	Reported present.	
Osaka, Japan	Sept. 11—Oct. 7	25 cases.	20 deaths.
Port Louis, Mauritius	Sept. 7	7 "	4 "
Glasgow, Scotland	Oct. 19-26	10 "	

Infectious Diseases in New York.—We are indebted to the Sanitary Bureau of the Health Department for the following statement of cases and deaths reported for the two weeks ending November 10, 1900:

DISEASES	Week end'g Nov. 3.		Week end'g Nov. 10	
	Cases.	Deaths.	Cases.	Deaths.
Typhoid fever	105	23	90	27
Scarlet fever	101	0	93	4
Cerebro-spinal meningitis	0	2	0	6
Measles	47	1	45	0
Diphtheria	215	25	212	27
Small-pox	0	0	1	0
Tuberculosis	215	131	250	159
Varicella	0	0	15	0
Laryngeal diphtheria (croup)	11	4	11	7

Naval Intelligence.—*Official List of Changes in the Medical Corps of the United States Navy for the Week ending November 10, 1900:*

BOYD, J. C., Medical Inspector. Detached from the *New York* when out of commission and ordered to the *Kearsarge.*

BOGERT, E. S., Jr., Passed Assistant Surgeon. Detached from the *New York* when out of commission and ordered to duty on the *Massachusetts.*

ELLIOTT, M. S., Passed Assistant Surgeon. Detached from the naval station, Port Royal, S. C., and ordered to the *Annapolis,* when placed in commission.

GARTON, W. M., Assistant Surgeon. Detached from the *Massachusetts* and ordered to the *Indiana.*

BUTLER, J. ST. J., Assistant Surgeon. Appointed assistant surgeon from October 26, 1900.

MOORE, J. M., Passed Assistant Surgeon. Ordered to the naval station, Port Royal, S. C.

SHIPP, E. M., Passed Assistant Surgeon. Detached from Norfolk Hospital and ordered to duty on the *Michigan.*

WILSON, H. D., Passed Assistant Surgeon. Detached from the *Michigan* and ordered to hospital, Norfolk, Va.

SPRATTLING, L. W., Passed Assistant Surgeon. Detached from Yokohama hospital and ordered to Cavité naval station.

DOUGLASS, S., Pharmacist. Ordered to additional duty on the *Massasoit.*

Marine-Hospital Service.—*Official List of the Changes of Stations and Duties of Commissioned and Non-Commissioned Officers of the United States Marine-Hospital Service for the Seven Days ending November 8, 1900:*

CARMICHAEL, D. A., Surgeon. Granted leave of absence for thirty days from October 23 to November 7, 1900.

MAGRUDER, G. M., Surgeon. Granted leave of absence for seven days from November 17. November 8, 1900.

WERTENBAKER, C. P., Passed Assistant Surgeon. To proceed to Natchez and Jackson, Mississippi, on special temporary duty. November 7, 1900.

YOUNG, G. B., Passed Assistant Surgeon. Granted leave of absence for two days. November 3, 1900.

Granted leave of absence for five days, on account of sickness. November 8, 1900.

FOSTER, M. H., Assistant Surgeon. To proceed to Seattle and Tacoma, Washington, on special temporary duty. November 3, 1900.

GIBSON, R. H., Hospital Steward. Granted leave of absence for thirty days from December 7. November 7, 1900.

General Remarks on the Gunshot Wounds of 1898 and 1899.—We are permitted to publish the following extract from Surgeon-General Sternberg's annual report, now in the press: Of the 4,919 men injured by gunshot during the years 1898 and 1899, 586 were killed and 4,333 were wounded and received into the field and other hospitals. The killed constituted 11.9 per cent. of those struck; the wounded 88.1 per cent. In other words, 1 man was killed for every 7.4 wounded. The Mauser bullet must therefore be regarded as less deadly than the larger missile used during the civil war. The Medical and Surgical History of the civil war shows the following casualties:

	Killed.	*Wounded.*
United States troops	59,860	280,040
Confederate troops	51,425	227,871
Total	111,285	507,911

In percentages, the casualties were: Killed 17.97, wounded 82.03; or 1 man killed to every 4.56 wounded. The relative proportion of killed was therefore considerably larger during the civil war than during our recent experiences. It is to be noted, also, that many of the wounds of the past two years were made by missiles of large calibre. Of those reported in 1899, 471 were specially stated as having been caused by the Remington bullet, of calibre .45. It is safe to say that had the whole number of wounds received been inflicted by the smaller Mauser or Krag-Jorgensen bullet, the percentage of immediately fatal wounds would have been materially lessened.

The less deadly character of the injuries inflicted by the modern bullet is manifested, also, when we exclude the killed and regard only those wounds which came under the care of the surgeons. Of these, during the two years, there were 4,333; and 259 of the patients, or 6 per cent. of the whole number, died. The corresponding percentage from the records of the civil war was 14.3. Table C in Part 1 of the Medical Volume of the Medical and Surgical History of the War of the Rebellion, shows that, among the white troops of the army, there were borne on the reports of sick and wounded, 230,018 gunshot wounds, of which 32,907, or 14.3 per cent., proved fatal. The marked reduction of the ratio of killed to wounded may be placed to the credit of the small calibre bullet; but the lessened mortality among the cases which came into hospital may not wholly be attributed to the humane character of the wounds inflicted by this missile. Due credit must be given to the improved surgical methods of the present day. Wounds of any region of the body may be taken in comparison and the result will always be found to show a decided lessening in the percentage of cases ending fatally among those of the past two years, as compared with those of the civil war. Take, for instance, gunshot wounds of the femur. During the civil war, surgeons in the field hospitals regarded a fractured femur as a serious menace to life, the danger from which was believed to be materially lessened by an immediate amputation. The field hospital surgical work after a battle consisted in great part of amputations, excisions and resections. Of 6,576 fractures of the femur, 2,923 cases were treated by primary amputation, 186 by resection, and the remaining 3,467 by conservative, or expectant, measures; this conservative action being due, in many cases, to a want of favorable conditions for the performance of primary operations. The limb was promptly amputated in 44.4 per cent. of these gunshot fractures. On the other hand, during the past two years 82 cases of gunshot fracture of the femur were reported, 6 of which were treated by primary amputation and 2 by resection, the remaining 74 cases being treated by conservative methods, not because the conditions were not favorable for the performance of primary operations, but because of a conviction that under present methods of treatment the limb could be preserved without adding materially to the danger to life. The limb was lost through surgical intervention in only 7.3 per cent. of the cases.

Not only limbs, but lives, were saved by the surgical practice of the past two years. In the 82 gunshot fractures of the femur, the upper third was involved in 32, of which 5 were fatal; the middle third in 27, of which 3 were fatal, and the lower third in 23, of which 1 was fatal. The mortality varied from 4.3 per cent. of the cases in which the lower third was fractured, to 15.6 per cent. of the cases in which the upper third was the site of the injury; whereas the corresponding percentages of fatal cases during the civil war were respectively 42.8 and 49.7. The whole of the lessened mortality in these serious fractures may be credited to the protection given to the wound by the first-aid dressing and to the care exercised in the subsequent aseptic treatment of the fractured limb.

In penetrating wounds of the thorax, the rate of mortality fell from 62.6 per cent. during the civil war to 27.8 per cent. during the years 1898 and 1899. The civil war reports show 8,403 cases in which the results were determined; 5,260 deaths occurred among the number. The reports for the later years, as already stated, show 198 cases, of which 55 were fatal.

There were, during the civil war, 3,475 penetrating wounds of the abdomen in which the ultimate results were determined; 3,031 of these, or 87.2 per cent. of the total, proved fatal. During the years 1898 and 1899, 116 cases, 81 fatal, were recorded, the fatal cases constituting 70 per cent. of the total. Of 10 cases in which laparotomy was performed, 9 were fatal.

The alteration in the percentages of mortality in fractures of the cranium is less marked than in wounds of other parts of the body. Of 4,243 cases of cranial fracture during the civil war, 2,514, or 59.2 per cent., were fatal. In 1898 and 1899, 68 cases were recorded with 37 deaths, the latter forming 54.4 per cent. of the whole number.

Births, Marriages, and Deaths.

Marriages.

Ashton—Henszey.—At Bryn Mawr, Pa., on November 7th, Dr. Thomas G. Ashton to Miss Mary Henszey.

Blackburn—Halliday.—In Bellefonte, Ohio, on November 8th, Dr. A. E. Blackburn to Miss Myra Halliday.

Blatters—Levison.—In Brooklyn, N. Y., on November 5th, Dr. S. R. Blatters to Miss Minnie Levison.

Green—Green.—In Richmond, Va., on November 2d, Dr. Paul Williamson Green to Miss Adaline Harrison Green.

Morgenstern—Peyser.—In New York, on November 12th, Dr. Julius Morgenstern to Miss Selma Peyser.

Prophett—Corbett.—In Reading, Pa., on November 1st, Dr. James H. Prophett to Miss Elsie May Corbett.

Sullivan—Welsheimer.—In Washington, D. C., on November 1st, Dr. D. L. Sullivan to Miss Lulu Welsheimer.

Vogel—Abeles.—In St. Louis, Mo., on Thursday, November 1st, Dr. Albert V. Vogel to Miss Leonora Abeles.

Westervelt—Ballard.—In Philadelphia, Pa., on November 7th, Dr. H. C. Westervelt to Miss Fredrica L. Ballard.

Deaths.

Ansell.—In Toledo, Ohio, on November 11th, Dr. W. M. Ansell.

Becker.—In the borough of the Bronx, New York, on Tuesday, November 13th, Mrs. Henrietta Becker (*née* Wöhning), mother of Dr. Charles P. Becker, of the borough of Brooklyn, in the ninety-second year of her age.

Bentley.—In Cheshire, N. Y., on November 2d, Dr. Francis R. Bentley, in the eighty-fourth year of his age.

Bruck.—In St. Louis, Mo., on Thursday, November 8th, Dr. Jesse W. Bruck, in the seventieth year of his age.

Cleaver.—In Lakewood, N. J., on Thursday, November 8th, Dr. James P. Cleaver.

Collins.—In Camden, N. J., on Saturday, November 10th, Dr. William T. Collins, in the seventy-first year of his age.

Confer.—In Monroe, Wis., on Tuesday, November 6th, Dr. F. M. Confer, in the forty-sixth year of his age.

Dewey.—In Keytesville, Mo., on Tuesday, November 6th, Dr. George M. Dewey, in the eighty-first year of his age.

Harstone.—In Westminster, Md., on Thursday, November 8th, Dr. Campbell S. Harstone, in the forty-third year of his age.

Lee.—In Allegheny, Pa., on Saturday, November 10th, Dr. William Lee, in the forty-third year of his age.

Loughry.—In Pittsburgh, Pa., on Thursday, November 8th, Dr. James N. Loughry, in the sixty-fifth year of his age.

Magruder.—In Woodville, La., on November 1st, Dr. L. W. Magruder.

Marshall.—In Milford, Del., on Saturday, November 10th, Dr. William Marshall.

Martin.—In Raleigh, N. C., on Monday, November 6th, Dr. Thomas Martin, in the eighty-fifth year of his age.

Merritt.—In Somerville, Mass., on Wednesday, November 7th, Dr. Salome Merritt, in the fifty-seventh year of her age.

Pease.—In Chicago, Ill., on Friday, November 9th, Dr. A. S. Pease, in the thirty-third year of his age.

Rice.—In New York City, on Saturday, November 10th, Dr. Nathaniel P. Rice, in the seventy-third year of his age.

Smith.—In Whitesburg, Ala., on November 1st, Dr. Stanhope Smith.

Stewart.—In Luzon, P. I., on Tuesday, November 6th, Dr. Stanley M. Stewart, in the twenty-ninth year of his age.

Turner.—In St. Louis, Mo., on November 1st, Dr. William H. Turner, in the sixty-seventh year of his age.

Walters.—In Pittsburgh, Pa., on Friday, November 9th, Dr. J. S. Walters, in the fifty-fifth year of his age.

Weltmar.—In Philadelphia, Pa., on Saturday, November 10th, Dr. J. G. Weltmar, in the fifty-sixth year of his age.

Wheeler.—In Wheelerville, Ala., on November 1st, Dr. W. Wheeler.

Obituaries.

HENRY DRURY NOYES, M. D.,

NEW YORK.

Dr. Noyes died in Mount Washington, Massachusetts, on Monday, November 12th. Although the immediate cause of his death is said to have been pneumonia, his health had not been good for a number of months, and many of his friends had for a long time felt that it was injudicious for him to persist in active practice, even that of his specialty.

For many years Dr. Noyes, whose early training had been in general surgery, was a conspicuous figure among the ophthalmologists of the United States. He was an exceptionally successful practitioner, a copious contributor to ophthalmological literature, in which he produced a systematic treatise, and a brilliant clinical and didactic lecturer. Personally, he was a most amiable and genial man. He was always earnest and steadfast in the promotion of all undertakings having for their object the advancement of medical science and the welfare of the profession.

Pith of Current Literature.

Philadelphia Medical Journal, November 10, 1900:

Aneurysm of the Heart with Thrombosis of the Left Coronary Artery. By Dr. Judson Daland.—This affection occurring as a late manifestation of syphilis, is very unusual and interesting. In this case, which has occurred in the practice of Dr. Isaac Leopold, the extreme obstruction of the right coronary artery near its orifice, which was narrowed to the size of a hair-pin, and the localized thickening of the wall of this vessel, must have required months or years, during which time there was a progressively increasing interference with the supply of blood to that portion of the heart supplied by this artery. This furnishes a reasonable explanation for the development of the fibroid changes in the sæptum, and, later, of the occurrence of the aneurysm. It is particularly interesting to note the method by which Nature attempted to strengthen the weakest portion of the wall of the left ventricular cavity above the apex, by the formation of an organized clot on the ventricular side, and of chronic localized pericarditis upon the pericardial side of the heart.

The Treatment of Syphilis—A New and Tolerable Form of Administering Mercury, with Report of 65 Cases Treated at Bellevue Hospital. By Dr. Winfield Ayres.—Mercurol, a nucleid of mercury, discovered by Dr. Karl Schwickerath, of Bonn, Germany, is the form that has been tested by the author. Seven grains, three times a day, have been given, but it is better to commence by giving half-a-grain or one-grain doses. Twenty-five cases are given in detail, and upon looking them over it would seem that the author is justified in saying, (1) that it causes less disturbance of the gastro-intestinal tract than any other preparation of mercury used internally; (2) that it controls skin eruptions and pains much better than any other preparation, while it controls mucous eruptions as well as any other, and has an equally good effect on the chancre; and (3) that it is an advantage that it can be taken in pill form.

Value of Potassium Bicarbonate in Colds and Influenza. By Dr. Stephen Harnsberger.—The author gives thirty grains of potassium bicarbonate in a cup of milk every four hours during the day, and no other diet for forty-eight hours; and he finds that this will, at least in most instances, quickly start the patient along the road to health. When milk is not well borne or readily taken, the remedy may be administered with a glass of cold water and only a liquid diet allowed, and in from thirty-six to forty-eight hours most patients will feel better and want to eat.

Localization of a Bullet-wound of the Spinal Cord; Removal of the Bullet from the Spinal Canal. By Dr. Howell T. Pershing.

Study of a Mummy Affected with Anterior Poliomyelitis. By Dr. John K. Mitchell.—The patient was an Egyptian gentleman, wealthy enough to have a coffin hewn out of one great log of sycamore. He crossed the Styx 3700 years before the Christian Era, and with one leg shorter than it really ought to be. The author regrets the impossibility of cross-examining his antediluvian friend, but he believes that he was the subject of infantile palsy. He states that Dr. Osler's opinion, that the lameness of Jonathan's son, Mephibosheth, was due to this trouble, is based on a very slender foundation of fact.

Analgesia in Obstetrics Produced by Medullary Injections of Cocaine. By Dr. S. Marx.—A report of cases to accompany the author's article in the last issue of the *Philadelphia Medical Journal.*

Journal of the American Medical Association, November 10, 1900.

Tuberculosis of the Testicle, with Special Consideration of its Conservative Treatment. By Dr. John B. Murphy.—The anatomy and physiology of the testicle is gone over, and the importance of preserving the normal secretion of the testicle is emphasized. The practical point is made, that while many patients will not consent to the removal of both testes for tuberculous disease, until the bladder and prostate have become involved, or until they realize that death will result if the diseased organs are retained, they will readily consent to the removal of both epididymes, upon the physician's statement that the testicles proper will be preserved. Though this disease may occur at any age, it is much more common between the ages of twenty and thirty-five years. Occurring in early life, an inherited tendency is probably present. Traumatism and previous inflammatory processes predispose the testicles and epididymes to subsequent tuberculous infection. As to the atrium of infection, this at the present time is undergoing the most rigid scientific investigations, but the tubercle bacilli, having gained entrance to the system, may be carried to the sexual glands (1) by the blood-stream, (2) along the surface of the mucous membrane of the genito-urinary tract, (3) by the lymphatics. (*To be concluded.*)

Tubercular Tumor of the Orbit. By Dr. Howard F. Hansell.

Ossification of the Choroid Leads to the Identification of the Body in an Insurance Case. By Dr. Robert L. Randolph.

Measles and the Exanthemata. Shall Children be Kept therefrom? Likewise from Diphtheria and Pertussis? By Dr. C. F. Wahrer.—It is not always best to keep our children from acquiring measles, at least not with as good a reason as we have for preventing their acquiring such virulent diseases as scarlatina, variola or diphtheria. He believes we should fight the measles of adult life by substituting the measles of childhood, as the latter stands in the same relation to the former as vaccinia does to variola.

Rötheln: Its Differentiation from Measles or Scarlet Fever. By Dr. Henry Koplik.—Rötheln deserves the dignity of being classed as a disease distinct from measles or scarlatina. It does not confer immunity as regards the two affections named. This, in the author's opinion, accounts for the vast number of cases in which there are said to have been two attacks of measles. He has never seen nephritic complications in this disease. The children should be kept indoors until all signs of the exanthema have disappeared. It requires little or no treatment. The "Koplik spots" are invariably absent.

A Clinical and Pathological Study of the Rash of Scarlet Fever. With Special Reference to the Origin and Character of the Desquamation. By Dr. J. F. Schamberg.—The color of the rash of scarlet fever varies in different individuals, and in the same individual at different times. It is usually dull red with an appreciable element of brown. Occasionally bright red. Puncta, vesicles and goose-flesh papules, occur with a considerable degree of constancy. The amount of desquamation is proportionate to the degree of vesiculation, as a rule. Histologically, the rash of scarlet fever is a dermatitis exhibiting deep and extensive changes in the corium. The greatest degree of inflammation is exhibited about the hair-follicles, which are frequently disintegrated by a serous and cellular exudate. Vesicles have their seat, either in the epidermis, or in the walls of the hair-follicles. The persistence of desquamation, and of the infectivity of the scales, is to be accounted for by the depth of the pathological process in the skin.

Some Experiments on the Relation between Audition and the Circulation of the Blood in the Head. By Dr. Hamilton Stillson.

Ætiology and Prognosis of Adenoids. By Dr. A. M. Corwin.—From a histological and bacteriological standpoint, it is uncertain just what relation bacteria bear to adenoid overgrowths. In fact, we are still far from a satisfactory solution of the problem of ultimate causation in many cases. Kyle speaks of a "natural increase of structure," or hyperplasia of the gland, "due to increased blood supply," and of hypertrophy resulting from inflammation. Prognosis should be guarded where deafness, tinnitus aurium, etc., are results of chronic postnasal obstruction.

Treatment of Lupus Vulgaris with X-rays. Report of a Case, with Cure. By Dr. J. T. Knox.

Medical Record, November 10, 1900.

Some Clinical Aspects of Gout. By Dr. Beverly Robinson.—This is a refreshing article by a man whose acquaintance with Virchow has not caused him to forget his Aristotle, and who does not assume that the microscope, the chemical balance, and all other instruments of accurate research, are given to solve the final changes of man's organism. The author reviews many of the protean or obscure forms of gout. Every practitioner of even limited experience, he says, has seen at least some of his examples, and he may or may not attribute them to the true cause. He may regard the symptoms as purely fanciful or gross exaggerations, simply the outcome of a fatigued brain or hysterical disturbance; he may think that too much work, mental or bodily, malnutrition, or an excess of food, lies at the source of it all, and try, by neutralizing errors or mistakes, thus to effect curative results. But, while there are many instances in which success will reward effort in one direction or another, there are still some cases which remain very obscure, and in which failure to accomplish much that is real and beneficial is a sad commentary on the medicine of our day and generation.

The Relief of Prostatic Enlargement. By Dr. Joseph B. Bissell.—The author believes that perineal prostatectomy with drainage—in competent hands—is an operation which is no more dangerous to life than an intercurrent operation for appendicular inflammation, provided the cases are properly selected ones, in which degeneration of the general and special tissues of the body has not gone on to a hopeless extent, in which the bladder and kidneys are not too seriously damaged, and in which septic infection, if present, is not too profound. But, even under part or all of these adverse conditions, complete removal of the prostate, with free drainage, is the rational and scientific method of radical treatment, and offers the best hope of relief, and the most favorable chance for a permanent cure, with the least danger to life.

The Constant Quantity in the Various Climatic Treatments of Tuberculosis. By Dr. C. G. Campbell.—The author is of the opinion that the principal point possessed in common by climatic conditions beneficial to phthisis is the discouragement of germ life and thereby the prevention of infection. But, while it seems certain that a favorable climate gives advantages not otherwise obtainable, in order to afford the patient his best chance, he should have not only such a climate, but in addition the most careful medical supervision. Modern methods of treatment and climate, together, will save many patients who would otherwise succumb.

Chronic Copper-poisoning among Artisans. By Dr. Henry A. Kurth.—The face in advanced cases has a drawn, anxious expression as in marked phthisis. Anæmia is found in all cases. The complexion is sallow. In general, the sufferer is intensely nervous. Itching and neuralgic pains are, here and there, complained of. Emaciation is typical and extends even to the muscular tissue. Strength greatly diminished. Iodide of potassium is useless in the treatment. Strychnine is of value against several of the symptoms, and there are some who claim excellent results for phosphoric acid. Our chief reliance to-day, however, must be prophylaxis and change of occupation.

Boston Medical and Surgical Journal, November 8, 1900.

A New Test Meal. By Dr. A. E. Austin.—The meal suggested by the author consists of two grammes of dried egg albumen compressed into half-gramme tablets. These are to be taken with two glasses of water, and the contents withdrawn one hour after taking. With this meal the contents never clog the tube, there is always a definite amount taken, and the contents filter much more readily than when vegetable albumen is used. It also avoids the constant presence of a large mass of starch granules when making microscopic examinations. The nature of the starch digestion cannot be determined from such a meal, but can be as easily determined from the amount of free hydrochloric acid present. The author has made a series of seventy-three examinations in which this meal has figured, and the results would seem to demonstrate its superiority to the test meal of Ewald and of Riegel.

Spinal Caries with Abscess: Analysis of Cases. By Dr. Ernest B. Young.—The figures indicate that trauma has an important position in the ætiology of this disease. In the more active periods of life, it is more frequent than at others. Throughout life the disease is about twice as frequent in the male as in the female. Caries of the dorsal spine leads most often to abscess formation. Psoas abscess is most common when either the dorsal or lumbar spine is attacked. The greater number have been treated by incision, but a few cases have been collected of aspiration and spontaneous opening. The mortality is about thirty-five per cent., at an average period of three years and nine months after the first symptoms. In those attacked before the tenth year the mortality is slightly greater. The most common cause of death seems to be a gradual deterioration of the whole system.

Celluloid as Material for Flat-foot Supports. By Dr. Albert H. Freiberg.—This substance, first mentioned in this connection by Dr. Kirsch, and subsequently by Dr. Schanz, is considered highly suitable for this purpose by the author. To recommend it, it has lightness, cleanliness, strength, elasticity, and the ease with which the plates can be made innocuous to footwear. The author takes an impression of the sole of the foot, contrives a leaden pattern therefrom, and upon this latter shapes the celluloid to the required form after softening it by immersion for a few minutes in boiling water.

The Agglutination by the Patient's Serum of the Bacteria Found in Cystitis and Pyelitis, with a Consideration of the Pleomorphism of the Bacteria Found in these Infections, Especially as Regards Chromogenic Properties of the Staphylococci. By Dr. Thomas R. Brown.—The results of the experiments go to show that the colon bacillus is the commonest cause of cystitis and pyelitis in women, and that various staphylococci, the tubercle bacillus and the *Bacillus proteus vulgaris* are also frequently found. The relations between various members of the staphylococcus family are indicated, and suggest that many species considered as being independent have originated from a common staphylococcus. The surroundings of special micro-organisms very likely influence the variations in their cultural peculiarities, and chromogenic tendencies.

The Management of Abdominal Testicular Ectopia Associated with Inguinal Hernia. By Dr. Charles A. Powers.

Medical News, November 10, 1900.

Some Observations on Anæsthesia by Intraspinal Injections of Cocaine. By Dr. S. Ormond Goldan.—The results of the intraspinal injections in over twenty cases have not been such as to make the author unduly enthusiastic. While this method has its uses, it has also its limitations, and he does not believe that it will ever have a place in surgery as the method for general use. Rather will it be used when, for various reasons, general anæsthetics should not, or can not, be administered. The order of safety of anæsthetics need not be changed except to place intraspinal cocainization at the unfavorable end of the list.

Further Experience with Subarachnoidean Injections of Cocaine in all Operations below the Diaphragm. By Dr. John B. Murphy.—As the anæsthesia is probably due to a local effect upon the posterior nerve-roots, and not to absorption, the solution being diluted immediately with the cerebrospinal fluid, the author has very much less apprehension than he had when it was first suggested. For the operations of strangulated hernia, intestinal obstruction, crushing injuries of the lower extremities, compound fractures, dislocations, operations on the perinæum, vaginal hysterectomy, and in intra-abdominal operations where the respiratory tract or the kidneys are at all impaired, cocaine should be the anæsthetic of election.

The syringe should have a slide and not a screw connection, as in twisting the barrel one is apt to dislodge the needle from beneath the dura. The author also emphasizes the importance of always using a fresh solution. Since August, he has used this method of inducing anæsthesia in twenty-five cases with very favorable results.

The Examination of Stomach Contents. By Dr. W. A. Bastedo.—A very practical article to demonstrate that, with the present simple methods at his disposal, the general practitioner need no longer feel that an amateur attempt to examine stomach contents is valueless. A good-sized hard breakfast roll, washed down with twelve ounces of water, makes a good test meal. One hour later the contents may be recovered by the stomach tube. A drop or two of one-half-of-one-per-cent. solution of dimethyl-amido-azo-benzol will cause five cubic centimetres of the filtered contents to turn pink if free hydrochloric acid is present. The amount of hydrochloric acid present may be estimated by ascertaining the amount of sodium hydroxide necessary to restore the yellow color of the azo-benzol. A simple test for lactic acid, as also one for blood, is given. Some dietetic hints are given, but the main purpose of the author is to show the value of an examination of the stomach contents, and the ease with which such an examination may be made.

The Hydriatric Treatment of Tuberculosis. By Dr. J. H. Kellogg.—The author believes that hydrotherapy is not only a powerful ally of the open-air treatment of pulmonary tuberculosis, acting as an adjunct of exercise, sunlight, cold or cool air, proper diet, and other hygienic conditions and physiological measures, but that it is actually indispensable in a large number of cases in which the patient is so feeble, that the advantages of the open-air method are only in part available.

Bronchial Disease not Invariably a Contraindication for Ether Anæsthesia in Abdominal Surgery. By Dr. Thaddeus A. Reamy.—In properly selected cases, ether is positively curative of bronchitis. With proper preparation of the patient and operating room, pure ether properly administered, and the exercise of caution against exposure, unpleasant complications may be avoided.

Persistent Slow Pulse. By Dr. James J. Walsh.—The patient has a pulse rate of 36. The author speculates as to whether it is natural or acquired. There is no plausible explanation of the phenomenon. Respiration is normal.

Lancet, November 3, 1900.

The Surgery of the Stomach. By A. E. Maylard, M. B.—The author first calls attention to the erroneous idea of the position of the stomach in the abdomen, held by many surgeons: *i. e.,* that the stomach assumes a transverse position, the cardiac orifice being only slightly above the pyloric, and the long axis of the viscus being almost transverse to the trunk of the body. In reality the lesser curvature is directed mostly toward the right, while four-fifths or even seven-eighths of the viscus is to the left of the middle line, and the whole organ assumes a perpendicular, rather than horizontal, position. The author then discusses the various operations upon the stomach as follows:

Exploratory Gastrotomy.—This operation is of the greatest value, not only for diagnostic purposes, but also as an aid to treatment. Through the incision a contracted cardiac or pyloric orifice can be dilated, a bleeding ulcer can be cauterized, or a focus of malignant disease can be curetted. The early knowledge of the existence of some localized malignant focus may admit of its complete and perfect removal with the result of permanent cure. He cites a case of extensive adhesions of the stomach and colon to a collapsed and shrunken gall-bladder. Exploratory gastrotomy followed by colotomy, was performed, the patient recovering completely.

Gastrostomy.—The author performs this operation by the Kaden-Senn method, which he prefers to the Frank method. There is never any leakage from the gastric fistula and the operation can be performed very rapidly.

Gastrorrhaphy.—This operation consists in lessening the size of a dilated stomach by folding in the anterior wall of the viscus. It must be remembered that chronic dilatation of the stomach is merely a symptom, being most frequently the result of obstruction of the pylorus, either organic or spasmodic. It is also due sometimes to chronic gastric catarrh or movable right kidney. Surgeons have no right to lessen the size of a dilated stomach without appreciating that there probably exists a cause the removal of which they should seek to effect. But having regard to this point, the author thinks the operation of value in cases of "idiopathic" dilatation, and cites two cases in which it was performed with the utmost benefit to the patients.

Gastrectomy.—This is a very severe operation, and the extreme gravity connected with its performance, together with the very doubtful nature of the result that may follow, must be well weighed with other considerations that affect the present sufferings of the patient and his future prospects of life, if nothing is attempted.

Gastrolysis.—In certain cases, an exploratory laparotomy frequently effects the very best results; for the discovery of adhesions and their division with consequent liberation of the stomach afford complete and permanent relief.

Gastrojejunostomy.—This operation is a comparatively simple and safe one, and is replacing such operations as divulsion of the pylorus, pyloroplasty, and pylorectomy, for cicatricial contraction of the pylorus. The author cites six cases in which this operation was performed. Four were cases of carcinoma, and one of chronic ulcer with inseparable adhesions to the liver, all being successful. One case was fatal; it was one of cicatricial stricture of the pylorus, death taking place from exhaustion.

Out of twenty-four operations upon the stomach performed by the author, only two have proved fatal. One of these has just been mentioned; the other was a case of œsophageal carcinoma.

Bacteriological Diagnosis of Disease. By S. Delépine.—An inaugural address.

Surgery as a Science and an Art. By C. Y. Pearson, F. R. C. S.—Abstract of an inaugural address.

Uncomplicated Æstivo-autumnal Fever in Europeans in the Gold Coast Colony, West Africa. By Dr. A. J. Chalmers.—Æstivo-autumnal fever is the most common type of malarial fever among Europeans on the Gold Coast. It is most prevalent in the wet season, the majority of cases occurring in June or July. Among the predisposing causes, are chills, constipation, mental worry, over-work, alcoholic or sexual excesses, organic disease, insufficient or improper food, and insolation. Alcoholic excess is not such an important factor as has been supposed. Infection takes place by means of the mosquito. The genus *anopheles* was found by the author to be responsible, and generally the species *pictus* and *costalis;* he also observed a small variety of mosquito hitherto undescribed, which he calls "*Anopheles Kumasii.*" A complete and careful description of this mosquito is given. The parasites usually found in the blood are unpigmented, but pigmented forms are not uncommon. The clinical type of the fever is generally quotidian, rarely tertian; slight complications may make the fever practically continuous. The initial rise of temperature is usually high, often to 105° F. Enlargement of the liver and spleen is often marked. The nervous system is but little affected. Where malignant symptoms are absent the death rate is very low. The administration of quinine is always preceded by a dose of calomel.

On the Diagnosis of Thoracic Aneurysm by the Röntgen Rays. By Dr. H. Walsham.—The author reports two cases of thoracic aneurysm, in which the diagnosis was greatly facilitated by skiagrams. In both cases the physical signs and symptoms seemed to point to the existence of a mediastinal growth, rather than to aneurysm. But skiagrams taken at varying intervals showed such marked variations in size of the growths, that the diagnosis of mediastinal tumor could be ruled out.

Have Maternal Impressions any Effect upon the Fœtus in Utero? By Dr. W. Duncan.—The author reports the case of a pregnant woman who was impressed by the appearance of a photograph of her husband's right hand, which looked as if it was deformed, having only the thumb and little finger. When her child was born the right hand was deformed in an exactly similar manner. A few months later, the child was shown to a neighbor, who was a few weeks pregnant. She was much shocked, and remarked that it was fortunate that only one hand was affected. When her child was born both its hands and feet were deformed. Both babies were perfectly healthy in all other respects.

Tonite Explosion as a Cause of Death. By Dr. A. S. Morton.—The author reports the case of a man who was killed by the explosion of a faulty rocket which had fallen in the lumber yard where he was at work. There were a number of wounds all over the body, the chief one passing immediately below the seventh rib in a line with the axilla. The man was able to walk a few yards after the explosion and say good-bye to his friends; this was due to the presence of old pleural adhesions which prevented the otherwise instantaneous collapse of the left lung.

Arrested Mental Development Following Depressed Fracture of the Skull; Trephining; Improvement. By A. Clark, F. R. C. S.—The author reports the case of a mulatto girl, aged eleven years, who, when first seen, had been in an asylum for three years because of idiocy. At the age of four years, the child fell backward from a high chair, fracturing her skull. On examination there was found a depression of the skull in the left occipital bone near the parieto-occipital suture, and about two fingers-breadths from the middle line. The skull was trephined over the seat of the depression, and the meninges were found to be enormously thickened and adherent. The dura mater was opened and its exposed part cut away, all adhesions broken down, so far as possible, and the wound closed, the disc of bone not being replaced. Recovery from the operation was prompt, and the patient has steadily improved in every way, both mentally and physically.

Nature's Alkaline Treatment of Gout and Rheumatism by the Use of Natural Alkaline Thermal Waters. By Dr. C. N. Brandt.—The essential points in the use of alkaline water for the treatment of uric-acid toxæmia. are as follows: 1. Frequent quantitative urinary analyses. 2. Changing the diet, the amount of exercise and the amount of water taken until there is free excretion of uric acid. 3. The taking of sufficient exercise to ensure the thorough oxidation of the foods taken. 4. The putting aside of all mental work. 5. A specific diet ordered, not depending upon the patient's knowledge as to what contains, and what does not contain, the proximate principles which are to be avoided. 6. To teach the patient what are Nature's laws as pertaining to his health and well-being and how to follow them. The author has been unable to demonstrate any different pathological condition in gout and rheumatism, the clinical picture in either case being practically the same.

The Wedge Operation for Entropion and Trichiasis. By H. Herbert, F. R. C. S.—The author has operated upon 130 cases of entropion and trichiasis by Snellen's wedge operation. He finds that a modification of the method is necessary in severe cases, and he insists on the following points: 1. A strip of skin at least two millimetres, or more, broad should be cut away in all bad cases. 2. (*a*) The depth of the tarsal wedge removed should, in all cases, be sufficient to divide the tarsus completely. Even if the conjunctiva is penetrated, no harm is done. (*b*) The breadth of the wedge at its base depends largely upon the amount of entropion existing. (*c*) The strip taken should be as near the free margin of the lid as possible. 3. The sutures should be entered as in Green's operation: *i. e.,* behind the most posterior lashes, and not in front of them as Snellen advises.

British Medical Journal, November 3, 1900.

Some Aspects of Modern Medical Theory and Practice. By Dr. A. H. Carter.—An address delivered before the Staffordshire Branch of the British Medical Association.

Ambidexterity. By Sir James Sawyer.—There is no occupation in which it is not an advantage to be able to use either hand with a power equal to that of its fellow, and the author recommends the general culture and adoption of ambidexterity. The normal position of the heart is the cause of the prevalent right-handedness. In fighting, the right hand was preferred to wield the weapon so that the heart might be kept as far away as possible from the assault of an adversary. Once a man learns to write with his left hand, most other sinistral accomplishments will be added unto him. Ambidexterity would prevent many occupation pareses and it might prevent or help in the cure of hemicrania.

The Diagnosis of Diphtheria. By Dr. H. B. Donkin. —The conclusions arrived at by the author are as follows:

1. Diagnosticians should at once regard and treat, without waiting for a bacteriological report, all cases as diphtheria, in which the clinical signs and symptoms are such as would have raised but little or no doubt in their minds as to their nature in the days before the coming of the bacillus.

2. They should also regard and treat as diphtheria all cases which, although lacking the usual clinical "stigmata," are shown by bacteriological examination to be associated with bacilli whose products kill animals and cause the characteristic lesions: albeit, even here, they may be in error, though on the better side.

3. The mere presence of bacilli (in the nose or elsewhere) "morphologically indistinguishable" from the pure "diphtheria bacillus," the host being healthy and inoculation results negative, may probably be ignored in practice, and so, also, may all negative bacteriological reports in cases where there are any clinically recognized

symptoms or signs of the concrete disease. In fine, does not the diagnosis of diphtheria still rest mainly for its surest foundation on the old ground of careful clinical observation, tempered and aided in some cases, it may be, by a judicial study of the report of the bacteriologist?

Myelopathic Albumosuria. By Dr. T. R. Bradshaw. —Myelopathic albumosuria may be defined as a disease characterized by an invasion of the cancellous tissue of the bones of the trunk by a cellular growth, by a disappearance of the osseous tissue, and by the presence in the urine of large quantities of a peculiar albuminous substance belonging to the class of bodies known as albumoses. The morbid anatomy consists in a change in some of the bones (ribs, sternum, and vertebræ) in which the interior of the bone is occupied by a reddish, gelatinous greasy mass. Microscopically, it consists of a vascular mass of cells, which are round or spindle-shaped; islets of cartilage may be present. The disease occurs in the second half of life, and the first complaint is usually of lumbago. The pain is aggravated by movement and does not yield to treatment; becomes progressively worse, and the chest wall seems to yield to pressure, and actual fractures of the ribs take place, either spontaneously, or following the exertion of slight force. A remarkable curvature of the spine appears and vertebral mobility is lost. In spite of these symptoms, the patients usually keep on their feet until near the end. The disease does not attack the bones of the extremities, thus differing from osteomalacia.

The *urine* contains a proteid which superficially resembles albumin. Its characteristic reactions are: (1) coagulation at a comparatively low temperature, 60° C. (140° F.); (2) the coagulum is redissolved on boiling; (3) it is readily precipitated by hydrochloric as well as nitric acid, and the precipitates are dissolved on boiling. The precipitation with hydrochloric acid furnishes the best test for its presence. The albumose may separate out spontaneously, giving the urine a milky appearance. The *diagnosis* of the disease presents no difficulties to one familiar with its symptoms, as the condition of the urine appears to be pathognomonic of the disease. It seems to be always fatal, but its course may be remarkably prolonged. In one instance the illness was of eight years' duration. Death takes place from exhaustion or some intercurrent disease. No form of treatment appears to have the slightest effect. The author has tabulated twelve published cases of the affection; the correct diagnosis was made during life in four instances.

Contribution to the Technique of Bacteriology. By Dr. M. A. Ruffer and Dr. M. Creudiropoulo.—The authors describe a method by which the diffusible products of the life of micro-organisms could be obtained without subjecting the micro-organisms themselves, or the culture media, to the action of heat, filtration, or chemical reagents. The apparatus consists of an ordinary test tube filled to any required level with bouillon or some other fluid cultivating medium, and plugged with cotton wool. Through this plug, another, smaller, glass tube is introduced, to the lower extremity of which is attached a collodion sack. This inner tube is filled to any required level with some cultivating fluid and is plugged at the upper extremity with cotton wool. The method of preparing and sterilizing the collodion sack is described in detail. The method can be used to study the diffusible products of micro-organisms, the action of an antitoxic serum on the dialysable products of its microbe, etc. By inoculating the two tubes with different micro-organisms their antagonism may be studied.

The Propagation of the Filariæ of the Blood Exclusively by Means of the Puncture of Peculiar Mosquitoes. By B. Grassi and G. Noè.—The authors report experiments showing without doubt that the blood filariæ, as the parasites of malaria, are inoculated by the puncture of special mosquitoes, although in a different way. The exit of the larvæ does not take place through the œsophagus and pharynx as stated by Bancroft. He did not explain how the larvæ of filariæ which are incapable of perforating, came out through the carapace of the mosquito. The authors believe that when the mosquito bites, the labium (which contains the larvæ) is buckled up against the base. As the style penetrates further, the labium is doubled on itself and finally ruptures. Along the dorsal groove, and through the rupture thus produced, come out the filariæ to penetrate the body of their definitive host. The authors believe that in some cases they have positively found this rupture in the middle of the labium. The filaria is harbored by *Anopheles,* so that its geographical distribution is the same as that of malaria, a fact noted by Grassi some years ago.

Suprarenal Gland Extract as a Hæmostatic. By O. F. F. Grünbaum, B. C.—The advantage of suprarenal extract over the more popular hæmostatics lies in the fact that it acts in very dilute solution, and does not tend to combine with albumin. But it does not cause coagulation, and therefore does not seal the bleeding points with clot. One or two crushed five-grain tablets in water form the most satisfactory method of administration in hæmatemesis. Hæmorrhage from the rectum may be satisfactorily treated by injecting a few ounces of water containing two or three crushed tablets. If we accept the theory that congenital hypoplasia of the vessel walls is associated with hæmophilia, we should not expect suprarenal extract to be of service, and the author has never seen a case of this condition where any benefit has followed its administration.

Mode and Rapidity of Reduction of Temperature by Quinine. By Dr. W. Sykes.—The author notes that quinine is absorbed with remarkable rapidity. In one case of fever, the temperature began to fall within forty-nine minutes. The amount of the dose, within certain limits, does not seem to affect the rapidity of the defervescence. Doses of twenty and forty grains had the same effect. It is probable that quinine reduces the body temperature by producing diaphoresis. Most of the antipyretic group possess in common the quality of producing violent diaphoresis, which also occurs in the night-sweats caused by the toxines of the tubercle bacilli, that are in like manner followed by a normal or subnormal temperature.

The Bromide Sleep in a Case of Mania. By P. M. Ragg, M. B.—The author reports the case of a man with acute mania who had taken forty two-grain quinine pills. For the first four days, twenty grains of sulphonal and thirty grains of ammonium bromide were given every twelve hours. After this, potassium bromide in two-drachm doses was given every two hours through the day for two days, and the patient's condition steadily improved. He slept most of the time, and by the twelfth day was practically well. The full effect of the drug was not manifest until twenty-four hours after the last dose. The same quantity of the drug *per diem* is more potent when given in larger doses at shorter intervals.

The Treatment of the Paroxysmal Stage of Whooping-cough. By J. E. Godson, F. R. C. S.—The method of treatment of the above-mentioned affection found most satisfactory by the author is as follows: Commence at once with the continuous inhalation of creosote. Clear the lungs as much as possible of bronchitis before using any special internal antispasmodic remedies. In broncho-pneumonia, however, belladonna appears at once to do good. In all cases, if, or when, the chest is fairly clear and the circulation good, antipyrine may be given in suitable doses. Good air, warm clothing, light and wholesome food are necessary in all cases. The average length of time required for cure in a variety of cases was 19.8 days. In every case the diminution in the number of the paroxysms was immediate. The author sent a circular to physicians asking for information as to the best mode of treatment of whooping-cough. None of the answers received were enthusiastic except from those recommending creosote, which was used by twelve per cent. of the physicians questioned.

Indépendance médicale, October 31, 1900.

Natural Sleep and Suggestion.—M. Paul Farez shows how suggestions made during natural sleep may influence a subject who is susceptible. He cites several instances in which suggestions made under these conditions have been actually carried out when the subject awoke. He points out that such hypnotic influences may assume a medico-legal importance.

A Pocket Sputum Box. By M. André Roblot.

Revue hebdomadaire de laryngologie, d'otologie et de rhinologie, October 27, 1900.

Molar Tooth Implanted in the Orbital Plate of the Maxillary Sinus. –M. G. Liaras reports such a case, the tooth being found in the orbital plate of the left maxillary sinus. A sinusitis developed, which yielded promptly to surgical measures. The sinus remained open and was treated antiseptically. The tooth was not removed.

Syphilis and Papilloma of the Larynx.—M. G. de la Combe, in reviewing a case of this nature which had been successfully operated on, calls attention to the rapid disturbance of respiration and phonation and the appearance of syphilis at the same time. The papillomatous tumor was so large that it could not be removed by the endolaryngeal route, but was successfully taken out after the operation of thyreotomy at a time when the patient was almost suffocated.

Gynécologie, October 15, 1900.

Treatment of Uterine Cancer.—M. G. Bouilly says that of fifty-six cases, only one died as a result of the operation. Of one hundred and thirty-four operated patients, since 1886, only eighteen are known to be alive; two of these have had recurrences and one is now cachectic. The author gives no details of the methods of operation or of individual histories.

Surgical Treatment of Uterine Cancer.—M. André Boursier says that abdominal hysterectomy in this disease offers an opportunity of extending the field of operation when necessary and of reaching and removing some of the involved glands. Its indications are, however, limited, and should be carefully considered. Vaginal hysterectomy should be performed when the disease is limited and the operation is easy of execution. It is especially to be preferred in very stout or aged women. Although neither method can positively offer a cure, in some cases, fortunately, a permanent cure results. In cases unsuited to operation a palliative curettage should never be omitted.

Diagnosis and Treatment of Cancer of the Body of the Uterus.—M. Calderini writes of eight cases of cancer of the body of the uterus. Five were cases of adenoma, one of myxosarcoma, one of sarcoma, and one of carcinoma. In each case the diagnosis was made microscopically, and a cure was obtained by total vaginal hysterectomy. It is always best to examine specimens obtained by curetting in women of advanced age who have hæmorrhages and are supposed to be suffering from so-called "hæmorrhagic fungous endometritis." If the microscopical picture at all resembles adenoma, it is wise to extirpate the uterus; in this way only can permanently good results be obtained.

Ætiology of Carcinoma and Pathogenic Blastomycetes.—Professor Leopold says that, in a fresh specimen of a cancer of the ovary, blastomycetes may be found, and that pure cultures of them may be made from fresh carcinomatous tissue. If this culture is injected into the testicle of a rat, the animal succumbs, enlarged nodes are found in profusion in the peritonæum, and in the fresh as well as in the hardened tissues, masses of blastomycetes are seen. He does not doubt that these organisms may be ætiologically responsible for malignant growths in man, and that the growth can be inoculated from man to animals and the latter dying from a malignant neoplasm.

Alquié-Alexander-Adams Operation.—M. A. Ebberlin, in writing of this operation (the Alexander operation) for retrodeviations and prolapse of the uterus, says that, of all procedures proposed for the relief of these conditions, shortening of the round ligaments in the inguinal canal is the most rational, and is most certain of relieving the ailments. The surest way of finding the round ligament is by opening the inguinal canal. No complications arise during pregnancy or labor as a result of the operation, and, when the incised parts are accurately united layer by layer, no danger of hernia exists.

Surgical Treatment of Utero-vaginal Prolapse.—M. F. Terrier advises, in all cases, an exploratory laparotomy to allow of an examination of the pelvis, the uterus, and its appendages, followed by abdominal hysteropexy. A secondary anterior and posterior colporrhaphy is necessary to support the uterus already attached to the abdominal wall.

Surgical Treatment of Retroperitoneal Fibromyata. By M. Dmitri de Ott.

Lavage of the Peritonæum with Corrosive Sublimate.—M. Kiriac washes out the peritoneal cavity with a one-per-cent. solution of bichloride of mercury when he removes adherent tumors or inflamed adnexa. He says that the fear of the drug is purely theoretical, and that he has used this method in many cases without a death or any symptoms of mercurial poisoning.

Progrès médical, October 20, 1900.

Heredity. By M. Chantemesse (*continued article*).

Journal des praticiens, October 20, 1900.

Treatment of Inflammation of the Labyrinth.—M. Maurice Boulay says that, at the beginning of an attack, when the patient is suffering from vertigo, nausea, subjective noises and deafness, he must be placed in bed on the back, on the abdomen or on the side, and kept in such a position as to render the dizziness minimal. The symptoms are to be treated as they arise. Subsequently, a purge is to be given and the patient is to be kept on a milk diet. Leeches and sinapisms may be applied locally if it appears to be necessary. During the subacute stage, subcutaneous injections of the hydrochloride of pilocarpine are to be given. The dose varies with the age, but from one-sixtieth to one-twentieth of a grain is the average amount given. During twenty-four days, at least twelve such injections should be made; but the patient's pulse, appetite and general condition must be closely watched. Hot baths and hot air baths are effectual aids of the pilocarpine. In chronic cases, quinine and salicylate of sodium are frequently efficacious. Other treatment is symptomatic.

Treatment of Ulcerative Stomatitis with Crystals of Chromic Acid.—M. Armand Siredey has achieved a cure in a number of cases of ulcerative stomatitis by cauterizing the diseased areas with crystals of pure chromic acid. He places the dry crystal upon the affected surface by means of a piece of sharpened stick. The cauterization is painful but easily bearable, and the pain does not last long. The cure is rapid and complete.

Presse médicale, October 20, 1900.

Hysteria and Paludism.—M. E. Marandon de Montijal reports a number of cases in which the advent of paludal disease seemed to exert a curative effect upon the hysteria from which the patients suffered. He calls attention to a similar phenomenon in epileptic persons.

Gazette hebdomadaire de médecine et de chirurgie, October 21, 1900.

Pneumococcous Peritonitis.—M. Broca reports two such cases, both following attacks of appendicular inflammation. They behave, the author says, much like peritonitides of other bacterial origin. The abscess cavities may become walled off and require opening; or they may open spontaneously through the umbilicus, the vagina, or the rectum. If there is no walling off, the author thinks it wiser to be in no hurry to open the abdomen, lest the admitted air give a new virulence to the bacteria. The course of the disease, as with gonococcous peritonitis, is very rapid, the onset very acute.

Peripheral Accidents in Mitral Stenosis. By M. Louis Gallavardin. (See *New York Medical Journal*, September 29, 1900, p. 560.)

Lyon médical, October 21, 1900.

Reaching the Pericardium and Anterior Mediastinum by Way of the Xiphoid.—M. Jaboulay says it is advantageous to enter the anterior mediastinum, and easy to reach the pericardium to drain it, by making a median incision just below the xiphoid appendix of the sternum into the peritoneal cavity. The cavities are entered from below very easily in this manner. There are no large arteries or veins in the immediate neighborhood, so the hæmorrhage is minimal. It also obviates the opening of the left pleural cavity in a pericardotomy.

Sterilization of Rubber Catheters.—M. Phélip, after enumerating and discussing the various methods of sterilizing rubber catheters, concludes that the most practical, the cheapest, and the least injurious means, is by the employment of formalin. (*Continued.*)

Wiener klinische Rundschau, October 21, 1900.

Criteria of Recovery from Psychoses.—Dr. Ladislaus Epstein says that the only criterion of perfect recovery from psychical disease is an ability to recognize the fact of mental illness and its relation to the life of the patient. He cites a number of illustrative cases. (*To be continued.*)

The Otometrum, a Watch Designed to Test the Hearing. By Dr. Adolf Neubauer.

Examination of Prostitutes for Gonorrhœa (*continued*). By Dr. Karl Gumpertz.

Klinisch-therapeutische Wochenschrift, October 21, 1900.

Multiple Neuritis and Ataxia.—Dr. Koloman Pândy reports a fatal case of multiple neuritis associated with ataxic gait. Microscopic examination showed a high degree of degeneration of the peripheral nerves and of the anterior and posterior spinal roots. (*To be continued.*)

Treatment of Insomnia Due to Arteriosclerosis.—Dr. Friedeberg gives nitroglycerin for long periods in doses of one one-hundred-and-fiftieth of a grain, one tablet two hours before retiring, another at bedtime. Sometimes the patient becomes accustomed to the drug and it is necessary then to administer sulphonal or trional, although this should not be done if it can be avoided.

Berliner klinische Wochenschrift, October 15, 1900.

Rabies at the End of the Century.—Professor V. Babes writes an essay on this topic. He regards the police regulations in cities as a powerful factor in the diminution of the disease. The recognition of rabies as a contagious disease, and its diagnosis by an examination of the central nervous system, are two other factors of progress. He gives credit to Pasteur for his work on rabies, not only as a great stride in knowledge but as an evidence of the great humanity of the man. (*To be continued.*)

The Action of Johimbine.—Professor A. Loewy writes of this alkaloid obtained from an African tree, the johimbehe. In small animals it evoked an intense hyperæmia of the genitals, causing erections and, it was found also, an increase in the spermaforming function. Aside from the hyperæmia, no bad effects were observed. The author says that sexual desire did not seem to be augmented. He believes the drug will be found usual as an aphrodisiac in cases of functional impotence.

Downes's Urine Segregator.—Dr. Albert Freudenberg speaks encouragingly of Dr. Downes's instrument and thinks that it deserves a wide trial. He refers to it as "Downes's modification of Harris's urine segregator."

Some Problems of the Cell and their Significance in Organic Therapy. By Professor David Hansemann. (*Concluded.*)

Preservation of Specimens in their Natural Colors.—Dr. Ludwig Pick concludes his paper by repeating his procedure. It consists of three steps: (1) fixation of the specimen in a mixture of Carlsbad salts and formalin; (2) transference to an eighty- or eighty-five-per-cent. alcohol; (3) preservation in a solution of sodium, acetic acid and glycerin.

Centralblatt für Chirurgie, October 27, 1900.

Sudech's Trephine.—Dr. L. Heidenhain gives minute directions for the use of this instrument, the employment of which he recommends as facilitating the operation.

Centralblatt für Gynäkologie, October 27, 1900.

The Forceps as an Instrument for Improving the Fœtal Position.—Dr. O. Schaeffer says that the forceps is contraindicated as a general thing in cases of unfavorable face positions or forehead presentations, for the purpose of correcting position only. Yet when the head is small and the occiput short, the head still movable, the pelvis roomy, the soft parts somewhat dilated and there is a considerable quantity of amniotic fluid present, and when the birth canal is slippery, and the labor has not lasted too long, and in the presence of other favorable elements—the attempt may be made by a skilled person to rectify the position. Force must never be used. He utters a caution in saying that forcible use of the forceps, by bringing about stretching and laceration of the parts, may evoke severe reflex nervous symptoms.

Death from Hæmorrhage from an Umbilical Cord.—Dr. J. Balin reports such a case in which the hæmorrhage appeared to be due to careless tying of the cord by the attending midwife. The author goes into the theory of such hæmorrhages and concludes that insufficient contraction of the muscular coat of the uterine artery, or its relaxation by a hot bath given too early, may bring it about. He does not think it necessary to wait for the pulsation of the cord to cease before tying it.

Medicinische Woche, October 22, 1900.

Function of the Thyreoid Gland. By Dr. Kuraew. (*To be continued.*)

The First Feeding of Infants. By Dr. H. Cramer.

Deutsche Medizinal-Zeitung, October 25, 1900.

Hyperemesis Gravidorum.—Dr. I. M. Lwow says the ætiology of the vomiting of pregnancy is not understood. It is more intense in multiparous women than in primiparous, and appears to be severest in the second month of pregnancy. It is rarely seen in the latter half of pregnancy. The author believes that women with perfectly normal genitals are not so prone to the vomiting as those who suffer from some uterine ailment, chief among which is cervical endometritis. The treatment of the genital ailment has almost always stopped the vomiting. (*To be continued.*)

Wiener klinische Wochenscrift, October 25, 1900.

Hereditary Syphilis in the Second Generation.—Dr. E. Fournier, from a study of many cases, emphasizes the dangers of hereditary syphilis to the second generation. In forty-six marriages of persons hereditarily affected, there were forty-three abortions, thirty-nine still-born children, and sixty-three living children. The following dystrophies were observed in these sixty-three: defects of the teeth and eyes, maldevelopment of the brain, microcephalus, rhachitic diseases, retarded development during childhood, intellectual and idiotic dystrophies, epilepsy, hysteria, marasmus, cardiac deformities, asymmetry, club-foot, sinking in of the nasal bones, hare-lip, hip dislocations, congenital closure of the urethra, deformities of the fingers, toes and ears, atrophy of the tongue, nævus, tuberculosis, and dilatation of the bronchi.

Acute Nephritis in Secondary Syphilis. By Dr. Abraham Stepler.

Echinococcus of the Kidney.—Dr. Ludwig Stein reports such a case, concluding that some cases require nephrectomy while others demand only the opening and drainage of the cyst. The abdominal route gives one a clear insight into the case, and, if incision of the cyst only is necessary, the peritoneal surfaces can be sutured together and a lumbar incision made.

Riforma medica, October 11 and 12, 1900.

Concerning Medullary Cocaine Anæsthesia According to Bier. By Dr. Umberto Manega.—In thirty cases operated upon under medullary cocaine anæsthesia by the author, there was absolute anæsthesia and total absence of postoperative complications. The quantity of cocaine used varied, according to the subject, from nineteen to twenty milligrammes ($\frac{285}{1000}$ to $\frac{300}{1000}$ of a grain) for each operation. In all patients, four to seven minutes after the injection there was a sensation of numbness in the feet, which was followed by the same sensation further up on the lower extremities. From this time on, the sensation of pain was gone, but the tactile and muscular sensations remained. During the entire operation, there was no pain whatever at any time, except in one case in which the solution of cocaine used was not sufficiently fresh, and may have lost its analgetic powers. Only in this case did he have recourse to chloroform. The average duration of the operations was from one half hour to an hour and a half. In one case, it lasted two hours and a quarter without interruption of the anæsthesia due to medullary injection of 18 milligrammes ($\frac{270}{1000}$ of a grain) of cocaine. Most patients complained of a heavy feeling in the stomach and of nausea, but these symptoms rapidly disappeared after the operation. In ten cases, there was a single attack of vomiting, and in three cases the vomiting was repeated twice or three times. Headache was the most constant phenomenon after operation, but usually it disappeared on the following day. The pulse remained strong, though frequent, its frequency depending upon the rise of temperature, which in certain cases reached 39.8° to 40° C. two or three hours after the operation, then gradually diminished and became normal on the following morning. The febrile reaction, according to Seidler and Seldovitch, is due solely to the action of the cocaine upon the spinal cord. The author gives a tabulated statement of his cases. The technique of injecting the cocaine employed by him does not differ essentially from that described by Quincke, Bier, and Tuffier. Medullary anæsthesia is contraindicated in hysterical subjects, but it may be used in children, provided they are properly secured on the operating table. This method of anæsthesia gives a more perfect painlessness than the subcutaneous injections with which many surgeons have performed radical operations for hernia. The author concludes that this method has very marked advantages in cases in which chloroform or ether are contraindicated. A short bibliography is given, but we notice that Corning's article on the subject is not mentioned.

October 13 and 15, 1900.

Concerning the Relation of Season to the Development of Soft Chancres and Venereal Buboes. A Clinical and Statistical Note. By Dr. F. Simonelli.—The question, whether there is a relation between the development of soft chancre and bubo, and the seasons of the year, is still unsettled. The author gives the results of a statistical study of this question, which he had undertaken in 1894 and had carried on until 1899, in the clinic of Siena. His conclusions are as follows: (1) That the pretended relation between the occurrence of soft chancre and bubo and the seasons of the year, does not exist, unless a slight diminution in the frequency of both lesions during the cold months is considered. (2) None of the factors thus far designated, not excluding temperature, is sufficient to demonstrate a constant relation to the other causes, that can be admitted without reserve.

Gazzetta degli ospedali e delle cliniche, October 14, 1900.

Changes in the Nitrogenous Metabolism as the Result of Introduction of Nerve-substance (Organotherapy). By Dr. Oreste Belucci.—The changes that result in the nitrogenous metabolism after the use of thyreoid extract have been sufficiently studied. The author takes up the corresponding changes after the use of injections of extracts of the brain or spinal cord, particularly of the spinal cord of animals immunized for rabies. He reports an elaborate series of experiments upon himself and upon a colleague who lived, so far as possible, under the same conditions of diet, etc. The observations were carried on at first during a period of probation without any injections of medullary extract, and then they each received a number of injections during a certain period. The nitrogenous metabolism of the period of probation was compared to that of the second period, and the following results were noted: The amount of nitrogen eliminated by the fæces was larger after the use of spinal cord extract, *i. e.,* during the second period. It was also noticed that intestinal peristalsis was considerably improved during the second period. An increase was also noted in the amount of nitrogen eliminated in the urine. The amount of nitrogen absorbed and retained by the organism during the experiments was slightly less than that retained during the period of probation, probably because of the amount of nitrogen and phosphorus injected with the medullary substance.

A Study of the Œsophageal Glands. By Dr. Giuseppe Mancuso.—The author gives an account of a research undertaken in order to determine the anatomical features of the œsophageal glands. His conclusions are as follows: (1) In newly-born children œsophageal glands are few in number and limited to the pharyngeal portion. (2) They are of the acinous variety. (3) They are very numerous in dogs, and are found in all parts of the œsophagus in them. (4) In these animals they are tubular in shape.

Journal Akouscherstva i Gienskich Boliesney (Journal of Obstetrics and Gynæcology, St. Petersburg), July and August, 1900. (Double number.)

What Shall We Do in Case of Wound of the Ureter when its Continuity cannot be Reestablished? By Dr. N. Fenomenoff.—The author describes a case in which, during a laparotomy, he not only severed the right ureter, but cut across it in two places at a considerable distance from each other. He tried to unite the ends, but failed. He knew that if he were to lead the prominal end of the ureter into the wound, and thus to establish a fistula, the kidney on that side would, sooner or later, have to be removed, so instead of doing this he thought he could avoid a second operation by removing the kidney then and there, after having satisfied himself by palpation that the other kidney was in good condition. As the primary operation (removal of ovarian cysts) had been a prolonged one, he did not proceed to do nephrectomy at once, but taking hold of the central end of the ureter, he pulled it out sufficiently to tie it in two places at a distance of three centimetres by means of strong ligatures. The ligatures were placed as near as possible to the kidney, as the operator remembered, from experimental work on dogs, the possibility of the formation of diverticula of the ureter in such circumstances. The wound in the peritonæum was then closed, and the operation completed in the usual way. The recovery was uneventful, and, seven months later, the patient was reported to be in good health. In all probability, the effect of the ligature of the ureter will be uronephrosis and ultimate atrophy of the right kidney.

Concerning the Pathology of Cysts of the Ovary with Gaseous Contents. By Dr. V. L. Jacobson.

Concerning the Therapeutic Value of Hypnosis in Uncontrollable Vomiting of Pregnancy. By Dr. A. Anoufrieff.—The author describes his experience with hypnotic suggestion as a measure against persistent vomiting of pregnancy. He reports two cases in which hypnotism was of undoubted benefit in checking the hyperemesis. In both cases, improvement was noted after the second sitting. The fact that hypnotism is of value in hyperemesis gravidorum, seems to show, according to Anoufrieff, that the ætiology of the trouble is that of a pathologic reflex.

Enchondromatous Myxosarcoma (Arborescent Type) of the Cervix. By Dr. G. G. Levitzky.

Complex Tumors of the Ovary. By Dr. V. Atlas. —A report of a case of tumors developing from the parenchyma of the ovary and from the stroma of the same organ. The left ovary presented a combination of fibroma, dermoid, and multilocular cyst; the right a dermoid cyst, and a fibroma.

A Case of Triplets. By Dr. S. D. Jampolsky.—History of a case showing that heredity plays an important rôle in the ætiology of multiple births.

External and Internal Vaginal Electrization by Means of Elastic Tampon-electrodes in Diseases of Women. By Dr. A. N. Alexandroff (*Concluded, see New York Medical Journal,* p. 519).—The last portion of the article is devoted to the clinical histories of a number of patients treated by the author's method of vaginal electrization. The material was placed at his disposal by Professor Iastreboff, of Warsaw. The number of patients was 66; the number of applications of electricity, 1,133 with the faradaic current, and 449 with the galvanic. In addition, the author has also included in his tables the 15 cases reported by Fedoroff, in which the latter performed 75 applications of the faradaic current and 155 of the galvanic. A bibliography of 187 titles is appended. The author's conclusions are as follows:

(1) Electrization of fibromyomas of the uterus produced a total disappearance of the growth and complete restoration of health in four cases out of six. (2) In two cases of atrophy of the uterus, with decrease in the activity of the ovary, the treatment was completely successful. (3) In amenorrhœa, as the expression of an undeveloped ovary and uterus, out of two cases, one was cured, the other improved. (4) In ascending gonorrhœa, of twenty cases, sixteen were cured, four much improved. (5) Of forty-one cases of inflammatory affections of the internal genitals, thirty-two were cured; eight, considerably improved; one, improved. The method described by the author is therefore recommended to the attention of the profession.

Concerning the Question of the Duration of Pregnancy, Labor, and the Puerperal Period in Young Primiparæ. By Dr. N. P. Mariantchick. (*Tables.*)

Concerning Pseudomyxoma of the Uterus. By Dr. G. I. Tomson.

Vratch, October 7, 1900 (October 19, N. S.).

Concerning the Effects of Wounds of the Kidney. By Dr. A. M. Dolgoff.—The author gives the results of a series of experiments undertaken with the intention of determining the influence of traumatism upon the functions of the kidney. He found that in dogs severe injuries of the kidney, even section of the organ into halves, was not accompanied with danger to life. The preservation of the capsule had an important bearing upon the healing of the wound, and the process of healing was materially hastened by the approximation of the edges of the capsule. Dogs bore the removal of the cortical portion of one kidney and of half of the cortex of the second kidney, but a simultaneous removal of the cortical layers of both kidneys resulted in immediate death. Dogs bore removal of the whole cortex only when this tissue was removed in sections at certain intervals. Wounds of the medullary portion of the kidney were always graver in their consequences in dogs than wounds of the cortex. Simultaneous injury to one half of the medullary portion of both kidneys was fatal. The largest area that could be injured at one time was that covered by two pyramids. If the cortex of one kidney and the medulla of the other was removed, the dogs died slowly of exhaustion. If one kidney was removed, any injury or operation on the cortex or medulla of the remaining kidney resulted fatally. The urine of dogs with wounds of the kidney showed albumin early and uric acid in excess. The latter was diminished if one kidney was removed, and the amount of nitrogen excreted was increased if the cortical layer was removed. The renal tissue was very resistant and had great regenerative powers.

A Simple Crutch for the Lithotomy Position. By Dr. I. S. Kalabine.—This appliance, which may be extemporized by the surgeon at any patient's house, consists of a number of towels tied together and looped around each knee after the extremities have been placed in position. The ends of the towels are then tied to the legs of the table that are nearest to the head of the patient, and thus traction of the bent knees in the proper direction is exercised. The author says that he has never seen a description of this method. The procedure is not a new one, however, with the exception, perhaps, of the tying of the sheets or towels to the legs of the table instead of leading them behind the patient and through under the axillæ, as is done by many surgeons now.

The Nutritive Value of a Twenty-four Hours' Ration of an Inmate of the Moscow Workhouse, and Comparative Data Concerning Normal Standards of Nutrition in General. By Dr. P. I. Kedroff.—In this interesting article, the author studies the conditions of diet in the workhouse as well as the food of the ordinary farmer's or laborer's family. His conclusions are as follows: (1) The daily ration of meat allowed the inmate of the Moscow workhouse is 6½ times smaller in weight than the normal allowance of meat according to Voit (requirement: 191 grammes of pure meat, or from 230 to 318 grammes of the meat as sold in retail butchers' shops), and in quality the meat given these inmates corresponds to the third or fourth grade of meat as classified by Smolensky (according to the part of the animal taken and the chemical properties of the meat). (2) As the result of the insufficiency of meat, the laborer in the Moscow workhouse suffers from a lack of proteids and fats. (3) The proteids are not replaced in his diet by vegetable substances, for these also are given to him in small quantities. (4) The vegetable diet, *e. g.,* the buckwheat gruel, is prepared from the lowest quality of grain (judging by the amount of fat in the grain), and is given to the laborers in the institution without the slightest addition of lard or butter. (5) As the result of these deficiencies the nitrogenous metabolism of the inmates becomes constantly worse. The daily ration of these laborers consists of the following articles: Meat, 35 grammes; black bread, 884 grammes; buckwheat gruel, 168 grammes, and cabbage soup, 600 cubic centimetres. The article is a very careful study of the dietetic needs of the workhouse inmate, and it is to be hoped that its suggestive conclusions will be heeded in Moscow and elsewhere.

The Depth of the Anterior Chamber and the Curvature of the Cornea in Various Conditions of Refraction and in Various Ages. An Experiment in Measuring the Depth of the Anterior Chamber in Glaucoma. By Dr. Zelenkowsky.

Concerning the Relation of the So-called Xerosis Bacillus, the Diphtheria Bacillus, and the Staphylococcus Pyogenes Aureus to Drying and Dissemination in Dust. By Dr. Lobanoff (*Concluded*).—The author performed a series of experiments in order to determine whether the germs named in the title could be dried and whether they floated about in the dust of the atmosphere. His conclusions are as follows: (1) The property of the xerosis bacillus, of remaining active in its dry state, and when mixed with dust particles, is very variable. (2) If dried in Petri dishes, this microbe has been found alive after from twenty-four hours to twelve days. On coverglasses, after from seventeen hours to nine days, and when mixed with dust after from seventeen hours to five days. (3) Some varieties of the germ, if mixed with dust, were easily dried; others, on the other hand, did not possess this quality in any degree. (4) The diphtheria bacillus (*a*) remained alive after drying in Petri dishes from sixteen to twenty-one days, on coverglass from fourteen to seventeen days, and after mixing with dust, from ten to thirteen days. (*b*) It dried quickly and could be dusted about with ease. (*c*) When dried and mixed with dust it did not lose its pathogenic powers during the entire period through which it remained alive in the mixture. (5) The *Staphylococcus pyogenes aureus* resists drying for a long time, and after drying remains alive for from twenty-three to thirty-one days, and, after drying and mixing with dust, possesses the same pathogenic properties as regards its action on the mucosa of the eye of rabbits as characterize it in ordinary conditions.

Annals of Gynæcology and Pædiatrics, October, 1900.

Pelvic Reflexes. By Dr. William A. Howe.—This article, written from the standpoint of a general practitioner, might well have for its text the dictum that the centre of a woman's nervous system lies in her pelvis. It is generally admitted, that no terminal nerve fibres are more sensitive to irritations than those of the female pelvis; and in no portion of woman's anatomy are nervous reverberations transmitted so forcibly to the spinal and cerebral centres. Menstruation gives a striking illustration of reflex influence emanating from the pelvis; neurotic symptoms are aggravated at that time, the affections of maniacs and melancholics become more prominent, and epileptics have more frequent seizures. In our daily practice, we should never be unmindful of the possible influence of pelvic irritation in all cases of a nervous character.

Residual Symptoms of Gonorrhœa in the Female. By Dr. Edward J. Ill.—Among the most prominent residual symptoms of gonorrhœa in woman is what has been called a macular vulvar inflammation. The mucous membrane of the vestibule is dotted with small red macules marked by a prominent central point "such as produced by a flea bite." They are most frequently formed on the tops of the papillæ, and are common about the paraurethral glands, and the orifice of the duct of Bartholini. There is also granular inflammation of the vagina. The very chronic form of endometritis where there is a copious mucopurulent discharge from the cervix in which gonococci can no longer be demonstrated, even after irritating applications, might possibly be classed under the head of residual symptoms.

Infantile Diarrhœa. By Dr. William B. Clapper.—In a state of collapse, free stimulation with brandy should be resorted to. Opium is used too frequently. It is useful, however, to allay the griping and to control the excessive vermiculation, but should not be given until the bowel has been freed of all undigested particles of food and other irritants.

Difficult and Obscure Pus Cases in Pelvic Surgery in Women. By Dr. Walter B. Chase.

The Ligature and Value of Dry Sterilized Catgut. By Dr. J. H. Carstens.—All buried sutures ought to be absorbable; all absorbable sutures must be absolutely sterile; chemicalized sutures are no more sterile than plain sutures; a suture that is chemicalized is harder and remains longer in the tissues; this latter fact is no advantage but a disadvantage; if, in a special case, it is desirable that a suture should remain longer, dry, sterilized *kangaroo* tendon can be used.

Observations Respecting Malignant Disease of the Pelvic Organs. By Dr. Augustus P. Clarke.

Diffuse Non-malignant Papilloma of the Vulva. By Dr. Edward J. Ill.

Acute Senile Endometritis. By Dr. L. H. Dunning.

West London Medical Journal, October, 1900.

A Few Observations on the Early Treatment of Abdominal Symptoms. By Dr. F. F. Schacht.—This article (the presidential address delivered before the West London Medico-Chirurgical Society on October 6, 1900) emphasizes, mainly, the following points: In a large number of cases of sudden abdominal trouble (1) the symptoms are very obscure and uncertain; (2) they are generally of an inflammatory nature; (3) early recognition is most important, both from a medical and surgical point of view; (4) exact diagnosis is at first often impossible; (5) very careful examination is essential; (6) while the diagnosis is uncertain, a routine treatment should be adopted, consisting of absolute rest in bed, fluid diet in small quantities, avoidance of all aperients, and administration of small quantities of opium, usually in the hypodermic form.

If we could get our cases early enough and treat them on these lines, the author believes that there would be far fewer of a grave nature and prolonged duration or requiring surgical treatment.

Rheumatic Pericarditis. By Dr. Seymour Taylor.—Attention is drawn to the important clinical fact that even if, in acute rheumatic pericarditis, the signs entirely disappear, the danger to the patient is not passed. The endocardium is the more important membrane. A patient with pericarditis should remain for a protracted time in bed, whether there are signs of endocardial complication or not. The heart, in such suspicious conditions, requires a longer period of rest than does a fractured femur; and speaking from the beneficial results seen by such a course of practice, the author would, with a clear conscience, sooner burden the resources of a hospital by keeping a patient with pericarditis in his bed for six, or even nine or twelve months, than adopt the same treatment in a case, say, of aortic aneurysm. In the one instance, he would be doing the best to cure his patient, but, he is not convinced that he would be doing so in the other.

Miscellaneous.

Picric Acid in Blennorrhagic Urethritis.—Dr. Matias Duque (*El Progreso medico,* May, 1900), in a paper read before the Society for Clinical Study, of Havana, records seventeen cases of blennorrhagia in women and one in a man, treated with picric acid. A one-half-, one- or two-per-cent. solution of the acid in distilled water was used, and a catheter and Guyon's instillation syringe being disinfected, and charged with the solution, the patient was put in the gynæcological position, and after urination to expel any discharge, and the washing of the external genitalia with a weak carbolic solution, the catheter was passed up to the neck of the bladder. Care was taken that the solution filled the catheter to its outlet. Six drops of the picric-acid solution were then ejected and the sound slowly withdrawn, a drop being instilled at short intervals during withdrawal. This treatment was employed once daily, the mean period of treatment being from six to twelve days. The sensation was slight and transitory, much less painful than silver nitrate, perchloride of mercury, or protargol. It lasted only from two to three minutes.

The Poisonous Effects of Ethereal Extract of Male Fern.—Dr. Gaspare Basile (*Practica del medico,* September) concludes an interesting paper on this subject as follows: "In conclusion, I believe that it is not the male fern itself that gives rise to toxic symptoms, but the alteration products of the ethereal extract. If it is desired to use male fern as a tæniafuge, it is necessary to observe certain precautions in its employment: 1. The recently prepared powder of the root of male fern should be prescribed. 2. If the ethereal extract is to be used, it is necessary that it should be carefully and recently prepared, as it is easily alterable. 3. Care should be taken to avoid the use of fatty substances, *e. g.,* castor oil or cod-liver oil, concurrently with ethereal extract of male fern. 4. It is requisite to administer after the dose of the tæniafuge some purgative, such as calomel or jalap. As regards the use of chloroform, the author considers it an excellent tæniafuge and one that does not give rise to any special after-effects."

A Peculiar Malformation of the Female Genitalia.—Dr. Raffaele Albenzio, of Naples (*Archivio Italiano di ginecologia,* June 30th; *Indépendance médicale,* October 10th), says that on January 11, 1900, a married woman presented herself at the Ospedale della Pace at Naples. She stated that she had always had good health. She had never had any menstrual flow. A year and a half previously, when she married, she discovered that her sexual organs were not adapted for copulation. She complained also of cold extremities and gastric pains and vertigo. On examination, the following condition was found: the body was well developed; the subcutaneous fatty tissue was abundant; the development of the skeleton was perhaps somewhat in excess of the normal female type. As regards the sexual function, the subject entered upon the embrace with slight pleasure, but accomplished it with indifference and even ennui, her organs not lending themselves to complete coitus. At each menstrual period, she had general sensations which called attention to the menstrual molimen, and lasted three or four days. The character of the woman was lackadaisical (*pleurnichard*) and her mental faculties were not characterized by vivacity. The abdominal region presented no anomaly. On the external genitalia there was an abundance of hair; the labia majora and minora were normal, as were also the fossa navicularis and the clitoris. The meatus urinarius, slightly everted, was properly located; on the vulvar contours were perceived certain folds, which, by the aid of two forceps, were dilated, when a depression, somewhat everted by attempts at coitus, was observed. The exploring finger encountered a slit at the level of the vulvar ostium, and forcing it, penetrated somewhat, owing to the elasticity of the slit. A little farther, a small body of the size of a pea could be felt. Combined exploration showed the pelvis to be void and the anatomical site of the uterus to be occupied by a small body surmounted by two lateral cords. There was no precise sensation of ovaries. The mammary glands were well developed. The diagnosis was absence of the vagina and uterus. The surgeon's art could avail nothing to repair this anomaly. The rare feature in this case was the association with defective genitalia of a normal general physical development and a metabolism in no way interfered with.

Proceedings of Societies.

AMERICAN LARYNGOLOGICAL ASSOCIATION.

Twenty-second Annual Congress, Held (in Conjunction with the Triennial Congress of the Association of American Physicians) in Washington, Tuesday, Wednesday, and Thursday, May 1, 2, and 3, 1900.

The President, Dr. SAMUEL JOHNSTON, of Baltimore, in the Chair.

The President's Address. (See page 309.)

Laryngitis a Provoking Cause of the Asthmatic Paroxysm.—This was the title of a paper read by Dr. WILLIAM C. GLASGOW. (See page 313.)

Fractures of the Nose.—Dr. THOMAS A. DE BLOIS presented a paper on this subject. (See page 709.)

Dr. EMIL MAYER, of New York: I should like to ask the reader of the paper whether he did not find that the rubber internal splint was irritating to the patient. The use of that form of rubber is one of the reasons why we were compelled to make vulcanite tubes. For myself, I prefer to use-pieces of guttapercha, which can be softened by placing them in hot water and molded into shape to fit each individual case, and in this way it is less collapsible than rubber. The ordinary perforated tube answers very well and these tubes have been serviceable in my hands. A recent fracture can be manipulated easily with the use of the elongated forceps, such as we use for straightening the sæptum after cutting operations, and the introduction of a conical tube of rubber or guttapercha. My experience is opposed to the use of soft rubber on account of the irritation of the mucosa caused by it.

Dr. WILLIAM E. CASSELBERRY, of Chicago: I commend the plan of anæsthetizing patients for the thorough reduction of fracture of the nose. It is often considered unnecessary to go through the trouble and the subsequent discomfort of general anæsthesia for this purpose, it being considered at the time, both by the patient and by the physician, as a rather trifling affair. But the setting of a fracture of the nose, provided the fracture involves also the sæptum, and perhaps parts of the sæptum much deeper placed, that is, much farther posteriorly than is represented in these drawings, is a very important procedure, especially if there is much swelling or if considerable time has elapsed since the fracture. It is particularly important in children to administer an anæsthetic because the nose is not so large. It is difficult without anæsthesia to explore its deeper recesses, so as to determine the extent of the fracture in children, and the risks of deformity from not effecting a thorough reduction of the fracture are considerable. Of course, there are cases, especially in adults, where the fracture is very simple, perhaps only a nasal bone or a green-stick fracture of the sæptum, where we can readily place the fragments in proper position. But these cases are exceptional. If you wish for thorough reduction of the fragments and an accurate diagnosis, anæsthesia is desirable, and it is preferable to running the risk of a resulting deformity of the nose.

I desire to commend the method of external dressing, in cases where it is necessary, by plaster of Paris. I know that we have had described in literature, and before various societies, ingenious splints of other materials made of metal, and fastened with rubber, plaster, levers, and so on. My objection to these is twofold. First, that they are never at hand when wanted; secondly, that it is difficult to keep them in position at night when the patient is tossing around. They involve, as a rule, splinting the nose along with a small area of the cheeks. My method has been, first, to make a thorough reduction of the fracture, and then to use the ordinary plaster of Paris bandage, having the patient recumbent upon the floor or bed, and molding the dressing across the nose, extending around the eyes, carried back across the cheeks to the line of the ears, being made thinner posteriorly, and secured by tapes passing above and below the ears behind the head. This dressing keeps its position perfectly at night or at any other time. I have not used any rubber appliance, but I have employed the simple expedient of removing this plaster of Paris mask every alternate day, and placing a small pad of cotton to press against any undue prominence, thus keeping the bridge of the nose in line. The result has been, in my hands, very gratifying, the patient sometimes saying that the nose was straighter after than before the fracture. The only objection to the plan is the grotesqueness of wearing a plaster of Paris mask for the requisite time. Some of my patients wear it for about three weeks, but I do not think it is necessary to wear it such a long time. I believe ten days would be sufficient, but in order to be on the safe side, I generally have them wear it a little longer than necessary.

As regards internal splinting, there is nothing better for this purpose than antiseptic gauze, nosophen gauze, for instance, which can be placed in position after spraying the nose with cocaine, which produces retraction of tissue; and, if the wad of gauze is placed in the proper position, when the cocaine effect passes away, pressure is produced. This gauze can be removed from day to day, and the internal splint accomplishes the same result as that described by the essayist. For the first few days, one must be careful in internal splinting, even with gauze splints, where there is subsequent swelling of the tissues, that too much pressure is not produced.

As regards the vulcanized splint, as mentioned by Dr. Mayer, it is very suitable indeed when the fracture of the sæptum is low down. When the fracture of the sæptum is high up, as depicted in these drawings, it would be worthless, for the pressure produced by it is too low down in the nose. I have had the same difficulty in the treatment of repair of deflections of the sæptum. I have had to supplement the ordinary vulcanite tube by wads of gauze, and to get pressure sufficiently high in the nose to accomplish the purpose of an internal splint.

Dr. JONATHAN WRIGHT, of Brooklyn: I have been interested, recently, in reading some old medical books, and I had occasion to look through a Hippocratic treatise. I was very much astonished to find to what degree of perfection the old Greeks had brought the treatment of recent fractures of the nose. I assure you, they were far in advance of anything that we have to-day in the multiplicity and ingenuity of their arrangements for correcting nasal fractures. During the old games of the ancients, fractures of the nose were very common indeed, and the Greeks had ample opportunity for straightening noses. They used nearly all the various methods that are employed to-day, and some others which ought to be used. Hippocrates said that the principal difficulty in straightening the nose was the element of pain; that while they desired to escape the deformity, the patients were frequently unwilling to bear the pain necessary to correct it. He said that the best thing to raise the sunken nose from the inside was the delicate fingers of a child, which could be inserted into the nose without great pain to the patient, and the fragments raised and held in place. The Carthaginian leather was similar, perhaps, to our malleable materials. One suggestion which is not in common use at present, and which is valuable, is this: He put a single plug in the convex side of the nose. He fastened a leather thong to the tip of the nose, pulled it over, and winding the thong around the head, fastened it to the forehead. It could then be pulled beyond the median line, and by pulling or letting up on this thong, it would allow the nose to take the position desired.

Another very curious expedient resorted to in a recent fracture of the nose, was to insert a plug made from the fresh lung of a sheep. The lung tissue being spongy and elastic, could be slipped into the nose, and probably acted very well indeed as a temporary expedient. He objected also to the things we have occasion to object to to-day, one of which was the use of absorbent material in the nose, on account of its becoming foul in a little while. If any of you will spend a few moments in reading the Hippocratic treatises on fractures of the nose, you will learn a good deal that we have heard to-day, and perhaps some other things.

Dr. John O. Roe, of Rochester: I have been much interested in this subject, and have had considerable experience in the treatment of fractures of the nose. I have been interested, too, in Dr. De Blois's paper, and in the ingenious devices he has proposed for the correction of nasal deformities.

There is one plan of correcting fractures of the nose and maintaining the fragments in place, which I have before described, and to which Dr. Wright has not alluded as having been mentioned by Hippocrates. It consists in the use of a thin metal splint conformed to the external contour of the nose and combined with an internal dressing.

In cases of fractures of the nose where the force has come from one side, we find, almost invariably, a depression of the nasal bone on that side, with an outward dislocation of the bone on the opposite side.

In cases where the blow has come from directly in front, the lower portion of the nasal bone usually slips outward, and is forced down over the superior border of the maxillary bone.

In correcting such deformities, where there is very much displacement of the fragments, an anæsthetic is almost always necessary, for without it, it is not possible to properly replace the fragments without inflicting unnecessary pain. A small amount of chloroform is, however, usually sufficient. The easiest and simplest plan of replacing the fragments, is by inserting a flat-bladed forceps, similar to Adams's forceps, into the nose, one blade on each side of the sæptum. By this means, a bend or fracture of the sæptum is at once corrected, while at the same time, by forcing the blade of the forceps upward, the whole nose can be put back in place, and, with the fingers on the outside of the nose, the fragments of the nasal bone can be very readily adjusted.

When the dislocation or fracture has been completely reduced, the nose is covered with a piece of heavy adhesive plaster, cut into the proper shape to cover the whole exterior of the nose. This covering of adhesive plaster is found to be of great assistance in holding the fragments in place, and in maintaining the normal contour of the nose. To maintain the parts immovable and the contour of the nose in the desired shape, a metal form is placed on the outside. This can be made of tin, copper or aluminum; the latter is decidedly preferable on account of its lightness. The metal plate is cut to the desired shape and bent or molded to fit the external contour of the nose, coming down on each side to the border of the maxillary bone, but not resting upon them. This form is then held in place by a strip of adhesive plaster across the front of the face.

In many cases this is all that is required to bring about a most excellent result. In some cases, however, displacement of the fragments inward will take place, particularly in those cases where the force is in a lateral direction, requiring an internal support. For an internal support, the hard rubber plug and perforated tubes are entirely inadequate to support the parts, for the meatus of the nostril is entirely too small to admit a tube or plug sufficiently large to be of any service in supporting displaced fragments high up in the nasal vault. It is, therefore, necessary to pack the upper part of the nose with gauze or absorbent cotton; the nose, of course, being first thoroughly cleansed with an antiseptic solution, and the gauze or absorbent cotton made thoroughly aseptic by being sterilized and saturated with a solution of bichloride, one to five thousand. When the upper portion of the nostril is packed, a perforated tube, sufficiently large for respiration and to hold the dressing in place, can be introduced into the lower portion of the meatus. If care is exercised to make the nasal passages and the dressing thoroughly aseptic, the latter can be left *in situ* from three to four days. It can then be removed, the parts cleansed, and a dressing reintroduced.

In all cases where this internal support is necessary, it should be introduced after the adhesive plaster has been applied to the exterior of the nose, but before the metallic form is applied.

In this connection, I should mention a method which I employ for refracturing the nasal bones and putting them in place where they have not been properly cared for at the time of the injury, and where more or less ossification of the parts has taken place. In refracturing these bones, it is important to do so without lacerating the skin. I, accordingly, raise the skin for a short distance from the nasal bone, and insert one blade between the skin and bone, and the other blade on the inside of the nasal bone, which can then readily be refractured without injury to the skin. Then, by applying the same form of dressing as in cases of recent fractures, you have an equally good result.

As Dr. Casselberry has observed, the various elaborate dressings proposed for fractures of the nose are never at hand when they are wanted. This form of dressing, however, that I employ, is always at hand, or can be improvised on very short notice, as illustrated in the following case:

Last summer, while on a yachting excursion, one o my companions was struck on the nose by a swinging boom, with a sufficient force to fracture the nose and knock it somewhat to one side. I replaced the dislocation and, as soon as we got on shore, I secured some adhesive plaster and improvised a metal splint by cutting it out of an empty tobacco can with a stout pair of shears It was then bent to conform to the nose, and held i place by a bandage tied around the head, across the face, and over the splint. No internal support was required, and this simple device gave us a perfect result.

Dr. HENRY L. SWAIN, of New Haven: I have been much interested in the paper and the remarks on fractures of the nose. I received at one time a valuable suggestion, as regards a method of treating a broken nose, from Dr. Wright. He stated that we ought to attach more importance to the nasal arch, as such, than we had formerly done, and that, if the nasal bones were deprived of the support of the sæptum, they remained frequently in place, even where the sæptum had been grossly eroded or injured by disease. He also maintained that if the nasal bones were restored to their proper position they would support themselves without the application of splints. After Dr. Wright had made this suggestion, I made up my mind that, in future, unless it was necessary, I would not use any form of splint, either internal or external, but would endeavor to restore the fragments to their proper position and maintain them there. I use splints for these fractures much more rarely than most of you, and I believe I can report just as good successes. In New Haven, we occasionally see a case of fracture of the nose. Now and then, the Yale football team have some poor fellow at the bottom of a scramble, and his nose is liable to suffer in consequence. I also see cases of fracture from boxing and athletic exercises. In correcting the deformity, I use forceps to elevate the nasal bone, opening out the blades, and close them in to force the sæptum back into place. If I cannot do this, I give the patient ether, and, by means of anæsthesia, I am enabled to procure the necessary yielding of the sæptum and to replace the fractured part. In those cases in which I have simply a break to take care of, I get along nicely without applying any splint.

I have only one failure to report at this time. I saw a patient, recently, whom I treated a year and a half ago with good success. Six months from the time I did the operation, he had a perfect nose externally, the fragments being in perfect position, and yet, a year and a half thereafter, he had a falling in on one side. The man fell downstairs and bumped his nose against the balustrade, and this caused his nose to resume its old position. This is not a contraindication against treating nasal fractures without the use of splints.

Dr. F. C. COBB, of Boston: I should like to say a word or two in corroboration of Dr. Swain's statement. I think Dr. Clark will agree with me that the broken noses we have had at the hospital in Boston this year have done as well without any splint, except a little cotton introduced below the depressed nasal bone, as former ones on which elaborate apparatus was used.

Dr. J. P. CLARK, of Boston: I treat all acute cases of fracture of the nose without splints. In almost every case, the fragments remain in perfect position, when properly replaced, without any support. I see the patient often at first, and if I should find a tendency to deformty, I would resort to some form of splint. But this has, practically, never been my experience. The secret of uccess in these cases appears to me to lie in a thorough eduction of the fracture as soon as possible.

Dr. W. K. SIMPSON, of New York: I desire to speak f a method which I have used recently. You will remember that in a paper read at the meeting of this association in 1898, to which I refer you for details, I spoke f the intranasal use of Bernays's sponge. Since then I ave had these sponges made in nasal shape, in which orm they may now be procured. I have used them for ntranasal splints in various ways, both by themselves, and also by placing them against guttapercha, and I think that they meet all the demands of intranasal splinting and dressing; and as regards the ease of their introduction, and their great absorptive powers, I consider them far superior to gauze, cotton, or anything of that kind. They are also, practically, an absolute safeguard against nasal hæmorrhage. They are compressed in several hundred layers, which permits them to be divided so as to regulate the desired pressure. I have used them considerably in the after-treatment of the Asch operation, for straightening the sæptum. In removing them, they may be removed in their entirety or in layers, the outer layers being removed first. The manufacturers have kindly sent some to this meeting for an inspection. For convenience of procuring them, they are put up in boxes under the name of "Simpson's Intranasal Tampons," and, as such, are sold in the shops.

Dr. W. F. CHAPPELL, of New York: Speaking of Dr. Simpson's splint, I think that I have made a slight improvement on it. I have taken his splint and cut a piece of red guttapercha, such as is used by dentists, into the same shape. A little iodoform collodion will hold the splints together. In this way we prevent the possibility of the splint sticking to the sæptum, a feature of the ordinary Simpson splint which I have found troublesome, as, in removing it, hæmorrhage is apt to result.

Dr. DE BLOIS (closing the discussion): I feel very grateful to the fellows for the free discussion which my short paper has elicited. I recall the case of a carpenter who, in drawing a nail, allowed the hammer to slip, and it struck him on the side of the nose, so that the nose was laid over the cheek. In this case, I used a stiff steel probe on the inside, with my finger under the nose on the outside, and lifted it into place. When the nose was put back into place again the noise of the bones snapping was quite perceptible.

I have not touched on compound fractures of the nose in my paper because I consider that they call for another line of argument.

It seems to me, that the operation of Dr. Roe for the artificial reduction of compound fractures would frequently lead to other troubles besides the fracture.

Dr. ROE: Not if you keep the parts in an antiseptic or aseptic condition.

(*To be continued.*)

Miscellany.

Medical Matters in Greece.—The following letter from Athens, by Dr. Achilles Rose, reached us shortly before Dr. Rose's recent return from Greece:

"Each time that I come to Athens, and every day while I am here, I find something that is noble and beautiful of which none of the visitors before me has written. Among the observations of this kind there is one which, I am certain, will please the readers of your excellent journal. Until the year 1884 Athens had only **one**, namely, the Municipal, hospital, called *Ελπις* (Hope). In the year 1872 there was organized, under the protection and inspiration of Her Majesty the Queen, the *Γυναικείας Παιδεύσεως Σύλλογος*, that is, a society for the improvement of the education of women. Among the objects of this society from its start has been that of elevating the status of women nurses to one of dignity, which previously it had not possessed. Nursing the sick as an occupation was practised by women of the humblest classes, and the status of such women was considered no higher than that of a washerwoman or a woman going out to do house-cleaning; there existed at that time among the ordinary people no idea that nursing the sick was a noble vocation, worthy of well-educated, well-trained women.

"In the year 1875 the Queen requested Dr. Nicolas G. Makkas to write a text-book for the instruction of nurses. This book of 176 pages was published in the same year. The first chapter treats on the virtues and the utility of nurses. In the year 1876 the Queen appointed a committee of distinguished men, presided over by the Metropolitan of Athens, to collect money for the erection of a hospital. This committee succeeded in finding the necessary funds, and in the year 1881 the foundation of the new hospital, to be named Evangelismos, was laid, and in the year 1884 the building was dedicated. To give an account of the contributions made by philanthropic citizens of Athens, of Greeks living in foreign lands, and of English and Russian Philhellenes, would fill pages, because, as every one has given generously, according to his means, justice would require that I should enumerate a great many, not only those who gave a million, or even millions, but also the great number of those who subscribed 5,000 or 10,000 drachmas. The same may be said in regard to prominent Athenian ladies who are aiding in this work of charity. I saw a committee of these ladies who devote time and labor to the Evangelismos, presided over by Mme. Sungros, while in session.

"On the wall of *each* and *every* bed is a marble tablet with a name (the name of some man or woman) or two names (of husband and wife); these names on the marble tablets tell who has paid for the sustenance of the bed. *No bed without a name!* There must have been an eager competition among the Athenians to secure a bed in the Evangelismos. One wing of the magnificent building bears the name Sungros, another the name Theodoridis. These wings were named after the two great philanthropists who paid the entire cost of the erection of these wings.

"It is to some extent due to the warm interest and the personal devotion of the Queen to this hospital that the contributions from the beginning came in so richly and continued to flow all the time, but the truth is that there exists no place on earth, no city in the world, which is, in proportion to its size, so generous as Athens in the matter of philanthropy. The Athenians have quite a number of men who may well be compared with our own Peter Cooper, men who gave their millions, not as legacies, but while alive.

"In the first year (1884 to '85) the number of sick treated was 301. In the year ending March, 1900, this number was 1,999. Of these, 1,290 were medical and 709 surgical cases. The expense in this last year was 232,333.54 drachmas; this last report records a legacy of Andrew D. Sungros's of two million drachmas.

"The medical report mentions three cases of perityphlitis and two of echinococcus; of the former, one, of the latter, all, were transferred to the surgical wards; the former affection appears in the surgical report under the name 'scolicoiditis,' and operation was done in eleven cases. There were in this last year sixty cases of typhoid fever, with a mortality of seven. Cold-water treatment was employed. Pulmonary tuberculosis (103 cases) is called *Χρονία πνευμονική φυματίωσις*.

"Echinococcus is very frequent in Greece. In the report for the last year of the Evangelismos we find that nineteen cases of echinococcus (fourteen of these, echinococcus of the liver) were operated on.

"Another frequent occurrence in Athens is stone in the bladder. This last report gives twenty-one cases in which an operation for stone in the bladder was performed, and the pathological museum of the Evangelismos has many and unusually large-sized specimens of this kind.

"In speaking of the site it is impossible to exaggerate, for the Evangelismos is the most wholesome, most beautifully situated hospital in the world. It stands on high ground, with a magnificent view upon a scene dominated by the picturesque Agios Georgios. There is a current of air from the mountains of the north which secures freshness even at noon during summer-time. These breezes from the north, which were much admired by the ancient Greeks, are most salubrious for Athens. It is on account of this fresh mountain air, modified sometimes by sea-breezes, in the vicinity of the Evangelismos, that the Americans and the English have selected the places for their archæological schools in the neighborhood. It is well known that, on account of the purity of the air in Greece, especially in Athens, septic diseases are of extremely rare occurrence. The hospital is so well regulated that even patients of the higher classes come to it for treatment.

"As has been mentioned already, it is the Queen who inspired and inspires and protects the work, but, unlike instances of this kind in which patronage by a high personage means not much more than giving the name, receiving reports, and contributing money, we have here an example of devotion without equal. The interest which the Queen takes in the welfare of the hospital is quite admirable indeed. While in Athens, she takes personal notice of most minute details, visits the hospital daily, goes to a bedside to console the suffering sick like an angel, alike in kindness to the better educated and to the most humble. It has happened that the Queen herself has procured and brought articles of different descriptions that patients had been longing for.

"It is well known that the Queen, unlike some other crowned women of Europe, never enters into politics, but devotes her life exclusively to her family and to works of charity. Her charitable interest, however, is not confined to the noble institutions for the improvement of the condition of women of the working class and the Evangelismos, in which two institutions she is the ever-active, the leading spirit, controlling the very details, so that nothing is done without her knowledge and approval; she is even known to visit incognito the sick poor in the city of Athens.

"The two physicians who took charge of the two departments, Dr. Makkas of the internal and Dr. Galvani of the surgical, when the hospital was opened, have been and are still the heads of these departments, are still the physicians in charge of the Evangelismos.

"It would be difficult to understand why communications from visitors to Greece are as a rule unfavorable to this unfortunate country, while there is so much occasion afforded to say pleasant things, if it were not an established fact that the daily press will, as a rule, decline everything on Greece except articles written in an inimical spirit; such is even the case with German medical journals. Thanks be to God that scientific journals, at least in America, are better than the political journals."

Newspaper Notoriety.—We are glad to endorse unequivocally the following plain-speaking editorial comment in the *Philadelphia Medical Journal* for October 27th:

"Some physicians seem to be born newspaper doctors; some achieve this sort of greatness; and some do undoubtedly have it thrust upon them. It is sometimes hard to decide in which class a man belongs, but there is a growing conviction on the part of the profession that, when a man's exploits, operations, health, goings and comings, his opinions on medical subjects, etc., appear habitually, and for years, in the papers, sure it is, despite his protests, by his wish and will. As we know to our disgust, many newspaper reporters have not a spark of honor, and their promises are made in order to be broken. Not all, however, are liars. Still, it is best never to talk with them. Even if they are honest, they are usually incapable of reporting any professional thing correctly. When a medical fact or a physician's opinion goes through a newspaper office, it generally comes out a sorry mixture of untruth, error, and distortion. To a man of character and scientific attainment, a sprawling interview, or an account of an operation in repertorial English, with photograph to prove it, is a most harmful and deplorable thing. That it may be wholly without his consent and against his desire, we know from a recent instance of which several correspondents complain. That it may be schemed for, we know in another case in which the advertiser, fearing his portrait might not be asked for, or that an old stereotype might be used, spontaneously sent his most recent photograph to the 'city editor.' It is so easy to stop the whole procedure if one sincerely wishes to stop it, that, as we have said, when it continues a long time, we may be sure the 'correspondents' do not wish the abuse to cease. We have found the great majority of editors and city editors of newspapers have no desire to disobey a simple written request by a physician that in no case is his name to appear in the paper without his written consent. The few wretched sensational papers that refuse to act upon such requests may be ignored. Why do not those opposed to the practice have their medical societies pass a resolution to that effect and transmit it to the newspapers with a list of the members? There seems to be a deal of useless botheration and exaggerated difficulty in checking a folly that persists because it is secretly desired, and because a simple request is not made."

The New York State Pathological Institute and the Commission in Lunacy.—The following circular, dated November 3d, has been sent by the secretary of the commission to the signers of a recent petition:

"Owing to the interest which you have manifested in the relations of the State Commission in Lunacy and the State Pathological Institute, I am requested by the commission to inform you of its action and its views in that regard.

"Your petition or protest was evidently based upon mistaken premises, for there has been no desire or effort on the part of the commission to 'subvert the scientific work of the institute,' or to 'limit the work to asylums,' or to do any of the unfortunate things which your petition implies. The first and most frequent complaints of the institute came from the profession at large, and from several of the signers of the petition. These criticisms dealt chiefly with the theoretical character of the work accomplished and its failure to carry out the designs at first contemplated. A committee was selected by the commission to examine the methods of the institute and the character of the work accomplished, and its report indicated several desirable changes. The superintendents of the State hospitals, for which the institute was created, held that they were not properly considered in the scheme of the institute.

"The commission, through these various sources and its own observation, was convinced that a more vital connection should be established between the State hospital system and the institute, and that better training and a greater incentive should be given young medical men entering the State service. The commission requested the director of the institute, in the spring of this year, to furnish a plan for the accomplishment of those ends. The reply of the director of the institute was, in the opinion of the commission, tantamount to a refusal to meet those views, and the commission brought charges looking to his removal and gave him a hearing. In the answer of the director was a statement of his present willingness to accede to the request and a denial of his previous unwillingness. In view of this answer the commission has requested him to take steps as follows:

"'You are also requested to either visit the hospitals yourself, from time to time, or to select a competent substitute, and examine the scientific work in your department that is being done, and to instruct and advise the physicians engaged in this work in a manner that will tend to harmonize their pathological inquiries with those undertaken by the institute. It is believed that a more frequent intercourse between members of the institute and the medical officers of the hospitals would lead to greater enlightenment on the part of the hospital physicians, and would progress their scientific work.

"'The commission, furthermore, requests you to establish a course of lectures in the institute upon pathological subjects connected with insanity, notice of which should be posted by a bulletin in the hospitals and colleges of New York, admission to which should be granted by you upon application. If the commission is correctly informed of the abilities of the institute, these lectures can be established and maintained without embarrassment or further expense. In the estimation of the commission, the results attained from these lectures, aside from their instructive features, will be to attract the attention of young men to the service of the hospitals and to the scientific work attempted by the State, and will, perhaps, lead to a desire on the part of these young medical men to enter the hospital service, and thus render a more effective selection of medical officers possible as vacancies occur.'

"The commission does not feel that this is more than a preliminary arrangement, and it does feel, in view of the position which you have taken in this connection, that it is entitled to ask you for assistance in outlining a development for the Pathological Institute which will, on the one hand, preserve or improve the existing system of scientific inquiry, and, on the other hand, meet the increasing needs of the State hospital service for trained scientific men to fill the medical positions.

"The commission does not consider that the immense amount of material under the State charge is being adequately studied by the profession. Nor does it consider that the development of young men for the hospital service is satisfactory.

"As you have manifested your interest and acquaintance with this matter by the protest sent to the commission, it is not doubted that you will be glad to avail yourself of the opportunity to join your associate petitioners for the appointment of a committee, equal to the importance of the subject, to confer with the commission upon the progressive policy above outlined, and give to the State the benefit of your experience and views."

Traumatic Paralysis of the Ocular Muscles.—At a recent meeting of the Section in Ophthalmology of the

College of Physicians of Philadelphia Dr. G. E. de Schweinitz, after a brief reference to the literature of traumatic paralysis of the ocular muscles, reported the following cases: Paralysis of the left inferior rectus from a knife-thrust, advancement of the severed tendon and tenotomy of the superior rectus, cure; division of the pulley of the superior oblique during an operation for abscess of the orbit caused by suppurating ethmoiditis, spontaneous disappearance of the diplopia, restoration of the normal rotations of the eye; injury of the superior oblique and superior rectus during an operation for the removal of a tumor from the orbit, the patient still under treatment; paresis of the right inferior rectus following a fall on the right side of the head, spontaneous recovery; paralysis of the left superior rectus and left levator palpebræ following a fall upon the left side of the head and forehead, spontaneous disappearance of the ptosis, persistence of the paralysis of the left superior rectus, binocular single vision secured by tenotomy of the left inferior rectus; paresis of the right superior oblique following a fall on the right supra-orbital region, later paresis of accommodation, complete recovery; paresis of the left inferior rectus following a fall on the head succeeded by concussion of the brain, recovery; and paralysis of the left superior oblique following a fall on the head succeeded by severe concussion of the brain, recovery.

Of the five cases of palsy not produced by direct traumatism, Dr. de Schweinitz attributed two to a basal lesion, one almost certainly being associated with fracture, one to a nuclear lesion in the anterior portion of the third nerve nucleus, and the other possibly to a nuclear lesion. In one case the evidences of injury were so slight, with the exception of the paralysis of the inferior rectus, that no satisfactory localization of the lesion could be made.

Infection in the Communion Cup.—The *Lancet* for October 13th, commenting editorially upon a letter from a correspondent on the danger of infection by the communion cup, has the following admirably practical remarks:

The point which our correspondent brings forward is a very real one and one, moreover, which should be taken up by ecclesiastical authorities without delay. We have ourselves commented upon the question on many previous occasions, to give an instance, in our issue of February 1st, 1896. There are three methods by which this danger may be avoided, but only two need be seriously considered. These are, one, the Roman Catholic mode of communion of the laity in one kind only, and the other the method of communicating technically known as "intinction"—namely, the bread being dipped in the wine. This latter method is still used in the Eastern Church and was common throughout the West up to the twelfth century. It went through various vicissitudes, being now allowed by one council and now forbidden by another, until at length, with a view of bringing about uniformity, the chalice was forbidden to the laity. The third method, mentioned by our correspondent, of a separate glass or cup for every communicant, is quite modern, has never so far as we know been adopted by any branch of the Church, and to our minds is open to the charge of introducing complications into a rite which should at every cost be kept dignified, solemn, and reverent in its ritual, however much or little of this last there may be. Into the theological arguments for or against "intinction" or those which led to the supersession of the latter by communion in one kind only we shall not enter, for it is not our province to do so. But we earnestly urge the ecclesiastical authorities of the Church of this land to consider the matter. The Church in former days was a leader in sanitation, witness the way in which the great religious houses drained fens, planted waste places, and taught men the advantage of living a regular life under a disciplined rule. It is none the less her duty now to remove occasions of stumbling.

The Education of the Laity in Sexual Matters.—Dr. Rufus B. Hall, of Cincinnati (*Louisville Monthly Journal of Medicine and Surgery,* November), at the recent meeting of the American Association of Obstetricians and Gynæcologists, said that the family physician should be the educator of the people in sexual matters, and when he got the endorsement, and was sustained in his position by the specialist, his influence would be greatly strengthened and widened. Dr. Hall advised that during the last year in high school, in every school in the land, a text-book should be employed embracing embryology, hygiene, anatomy and physiology, including sexual physiology, and that these subjects should be taught to every student, both male and female. He believed that this could be accomplished without shocking the morals of the most fastidious individual by dividing the classes so as to separate the sexes. A woman should instruct the girls, and a man the boys. This was the very time in life when individuals should be taught to know the functions with which Providence had endowed them, and how to care for their bodies as well as their minds. It would be a revelation to them to know that the sexual organs in the lower animals, as well as in the human race, were among the first centres to be formed, and could be recognized as such, early in intrauterine life. When the laity became educated upon this subject, as they should be, and understood the meaning of pelvic inflammation in young wives as gynæcologists understood it, the parents and guardians of young girls would realize that they owed them a duty before consenting to their marriage.

The Duty of the Injured to Employ a Physician.—According to the *Journal of the American Medical Association* for October 6th a point of some general importance was recently settled in the United States Court of Appeals, Fifth Circuit, in the case of the Texas and Pacific Railway Company *versus* White. It appears that White brought an action to recover damages for personal injuries alleged to have been sustained by him while a passenger on this company's railroad, through the negligence of its servants. He averred that he received a serious injury in the abdomen, which caused him great pain and produced a serious and painful disease of his bowels, and sharp, severe, and continuing pain in his spine or back, and which produced varicocele. But, for reasons which he afterward endeavored to explain satisfactorily, he did not at any time mention the fact of his having been hurt to any of the servants of the company. Besides, he proceeded on his journey with his car of cattle, which he was accompanying, riding on the top of that car part of the way, and even assisted in driving the cattle from the railroad to the ranch, travelling on foot a distance of thirty-seven miles, after which he did more walking, and some railway travelling. He did not, during the ten days thus consumed before he reached home, employ a physician, his explanation thereof being that he had hopes of wearing it out, and that it would pass off, and that he wanted to get back home, where he could get his family physician. It should, perhaps, be added that a man who was on the train at the time of the alleged accident testified that the party claiming injury spoke to him about it, and showed him a bruised place on his side. On the trial, the judge who presided recognized the settled doctrine that it was the plaintiff's duty to use reasonable care not to aggravate, or suffer to be aggravated, so far as he could prevent it, the injury which he had received. Continuing, the Court of Appeals says that the application of this doctrine to the subject of the plaintiff's failure to obtain promptly professional medical and surgical assistance is not very clearly shown by the adjudged cases or text-writers, so far as it has been able to examine. Here the injured party believed that the exigency of his business required him to continue his journey with his cattle, and to continue his care of them until they reached the ranch, and, the court says, it was not unnatural or unreasonable that he should hesitate to employ physicians who were strangers to him while he could endure the suffering he experienced until he could reach home, to have the advice and attention of his family physician. It goes on to state, however, that, while these reasons for his action commended themselves to its experience and sympathy, yet if therefrom an aggravation of his injury resulted, from his active attention to business or from his failure to obtain the advice and aid of competent physicians who were accessible, such aggravation, whether it resulted from his active exertion, or from his neglect or failure to obtain the needed medical or surgical assistance, could not, in justice, be charged against the railway company in addition to its liability for the original injury to the extent of the damage it necessarily caused. And it holds that it was as incumbent on him to procure the advice of a competent physician and surgeon, if accessible, as it was to refrain from such physical exertion as tended to aggravate his injury. There being proof tending to show that a part of the trouble could have been speedily cured, at a small expense and without hazard, by prompt proper surgical treatment, it holds that it was for the jury to say whether the conditions required a surgical operation, as also to determine the issues of fact raised by conflicting evidence as to the existence, nature, extent and likelihood of relieving the other troubles. Then, it says that, from the nature of the case, opinion testimony must be relied on, but in considering opinion or expert testimony the opinion of the jury is the chief factor in reaching ultimate conclusions.

An Important Legal Decision: Physicians not Liable when They Act in Good Faith.—According to the *Journal of the American Medical Association* for October 27th the Supreme Court of Massachusetts, in full bench, has given out a decision that is of the greatest interest and importance to medical men. It holds that physicians under the Massachusetts statutes are not liable for negligence in erroneously certifying a person as insane or inebriate, provided they do so in good faith and without malice. Even if their examination was a careless one their action was not the proximate cause of the commitment, as a judge must, under the statutes, determine that; and, secondly, they should, in accordance with public policy, be, like other witnesses, considered privileged and protected against liability as long as they act in good faith and without malice. The opinion, says the *Journal,* was a majority one, but, while not unanimous, it is sufficient to protect Massachusetts physicians from vindictive damage suits and may be a valuable legal precedent elsewhere.

"The Instant of Death," says the *Indian Lancet* for September 1st, is a vague and indefinite expression when viewed from the standpoint of physiology. An animal or plant cannot be considered as dead until it has reached that period in disintegration where it is impossible to revive life. Some physiologists still further restrict the definition to that point in decay where every cell in the body of an animal or plant has ceased to contain or consist of living protoplasm—in other words, each cell must have lost beyond recall its life powers. Probably one of the most striking examples of instantaneous death was that of the person who accidentally fell into a large vat of boiling caustic potash which at once consumed the entire body, leaving only the metallic plates from the heels of his shoes and a few buttons from the clothing as remains. Death from electric shocks also border on the instantaneous process.

Some months ago we called attention to the success of physiologists in transplanting and propagating epithelium cells under circumstances which heretofore had been considered impossible. It was found that living cells taken from the body could be preserved in a normal state for quite a length of time and then have life processes revived if they were properly treated.

The methods of reviving the asphyxiated, the hanged, the drowned, those shocked by electricity, and animals stunned by other similar accidents, have long been familiar to the human race. It has often been stated that animals lower in the scale than man use practical methods of resuscitating those who have met with such accidents. Every work on accidents and emergencies gives in detail the methods of treating a drowned person. The principle depends upon the fact that any creature whose heart has ceased to beat, and which has apparently ceased to live (if there is no injury done to its principal organs and it has not been exhausted by an illness or physical pain), may sometimes be brought back to life. This is sometimes referred to as the persistency of latent life.

There has been little or no advance in the practical application of these methods of resuscitation, during recent times, until the announcement just made by a French authority. Physicians differ in their statements of the length of time that artificial respiration and other methods of resuscitating the apparently dead should be continued. Some consider ten minutes; others half an hour; and cases are on record where persistent efforts over a greater period have brought gratifying results. It remained, however, for Dr. Laborde to devise an apparatus run by an electric motor and intended to resuscitate those who have been apparently drowned or suffocated. It restores the respiratory process by what is known as lingual traction, or the pulling out of the animal or person's tongue at regular intervals. The apparatus is operated by an electric motor which will run for three hours. Very gratifying results are reported from the experiments made on lower animals by this method.

If the new device proves to be all that its enthusiastic inventor and other parties acquainted with it claim, it is likely that the principle will be still further applied in restoring to life human beings who would otherwise be given up for dead. The field for the application of similar devices is very large. The attempts to restore to life patients under chloroform troubled with syncope are anything but assuring and satisfactory. The asphyxia of newly-born infants carries away many human beings at the threshold of life. Accidents to babies are of frequent occurrence; the overcoming of firemen with smoke is not of rare occurrence. We sincerely trust that the French inventor has indeed opened a way for the reclamation of human life under the circumstances which we have mentioned.

Original Communications.

RATIONAL PHYSICAL TRAINING FOR WOMEN.

By GEORGE ALEXANDER SAXE, M. D.,
NEW YORK.

(*Concluded from page 839.*)

Having discussed in general terms the purposes and fundamental principles of physical training for women, I pass on to a brief consideration of the conditions under which the work should be conducted—in other words, the gymnasium and the dress of the pupils.

A gymnasium must be spacious, well lighted, and well ventilated and it must be so constructed that it can easily be kept clean. These requirements are so obvious in the light of the present knowledge of hygiene, that it is strange that they are not satisfied in all modern gymnasiums. Physical exertion demands an increased supply of oxygen, and an allowance for this increase should be made in the ventilation of the room. All surfaces upon which dust is apt to accumulate must be wiped daily with damp cloths, and all materials that harbor dust, such as rugs, mats, blankets, etc., must be frequently cleaned. The different types of baths are essential adjuncts to the equipment of a modern gymnasium; and provision must be made for perfectly ventilated and easily cleaned lockers for the clothing of the pupils. Couches or cots, provided with blankets and pillows, should be placed about the room, so as to be immediately accessible, and the pupils should be taught from the first to take a rest whenever necessary in the course of a lesson. While it is the duty of the instructor to see that no pupil exerts herself to such a degree as to accelerate respiration and heart-action to an undue extent, the pupils must be trained to know instinctively when the point of fatigue has been reached in any form of exercise, and should be encouraged to lie down for a few minutes in complete relaxation when this occurs.

The dress of the pupils should consist of "bloomers" and jacket of some light material, preferably silk. The pattern in use in one of the gymnasiums for women in New York, is shown in the illustration (Fig. 1). No constricting collars, belts, or garters must be tolerated, all clothing being so fashioned as to hang from the shoulders. The ideal gymnasium shoe for women should be made for each pupil, the measure being taken from the bare foot standing upon a sheet of paper and bearing the entire weight of the body. The outline of the sole must be drawn around the well-spread toes, thus allowing for the physiologic expansion of the foot. The upper should be of thin, flexible leather, or canvas, fitting well over the instep and reaching just below the ankle. The soles should be perfectly uniform in thickness, without heels, and flexible enough to permit free play of the arch. Many exercises can be performed with advantage in bare feet, rugs being used to prevent contact with the cold floor.

The general features of a course of physical training for women may be deduced from the principles already outlined. The first thing to be taught is the "yawn and stretch" in the prone, sitting, and standing positions. This serves as an introduction to the work, and as a practical illustration of the qualities of natural motion. At the same time, it teaches the pupils to relax the muscles of the body as completely as possible, and shows them the best method of resting between exercises. The following list shows the essential features of the programme of work in a gymnasium for women:

I. Normal Positions and Methods of Motion:
    (a) Normal standing;
    (b) Normal walking;
    (c) Other positions and movements such as sitting, rising, reaching, lifting, bending, running, etc., that play a part in everyday life.
II. Breathing Exercises:
    (a) Exercises in correct methods of breathing;
    (b) Exercises in tone production;
    (c) Exercises in enunciation.
III. Free Gymnastics:
    General exercises according to Ling's system, selected to suit the requirements of women and to conform to the principles of natural motion. With these may be associated the teaching of the laws of expression according to Delsarte's system.
IV. Apparatus Work:
    As an accessory to the other forms of exercise. The most useful types of apparatus for a women's gymnasium are: (a) The intercostal machine. (b) The chest weights. (c) The leg weights. (d) The head weights. (e) The stall-bars. (f) The quarter-circle.

Some features in this scheme of work need further discussion, inasmuch as their significance is but rarely appreciated in gymnasiums for women. The first of these is instruction in the motions and positions incident to everyday life, particularly normal standing and walking. So little attention is paid to this essential phase of physical training, that the ignorance of the average woman concerning the right manner of standing and walking is apparent from the observation of a throng of women on the streets of our cities.

Fig. 2 shows the characteristics of the normal standing poise. It will be observed that the weight of the body is partly supported by the arches of the feet; the perpendicular line which passes in the median plane of the body through the centre of gravity in the pelvis, strikes the centre of a transverse line connecting the broadest parts of the soles. The feet are placed at an angle of forty-five degrees, the heels about two inches apart. The knees are perfectly straight, not over-ex-

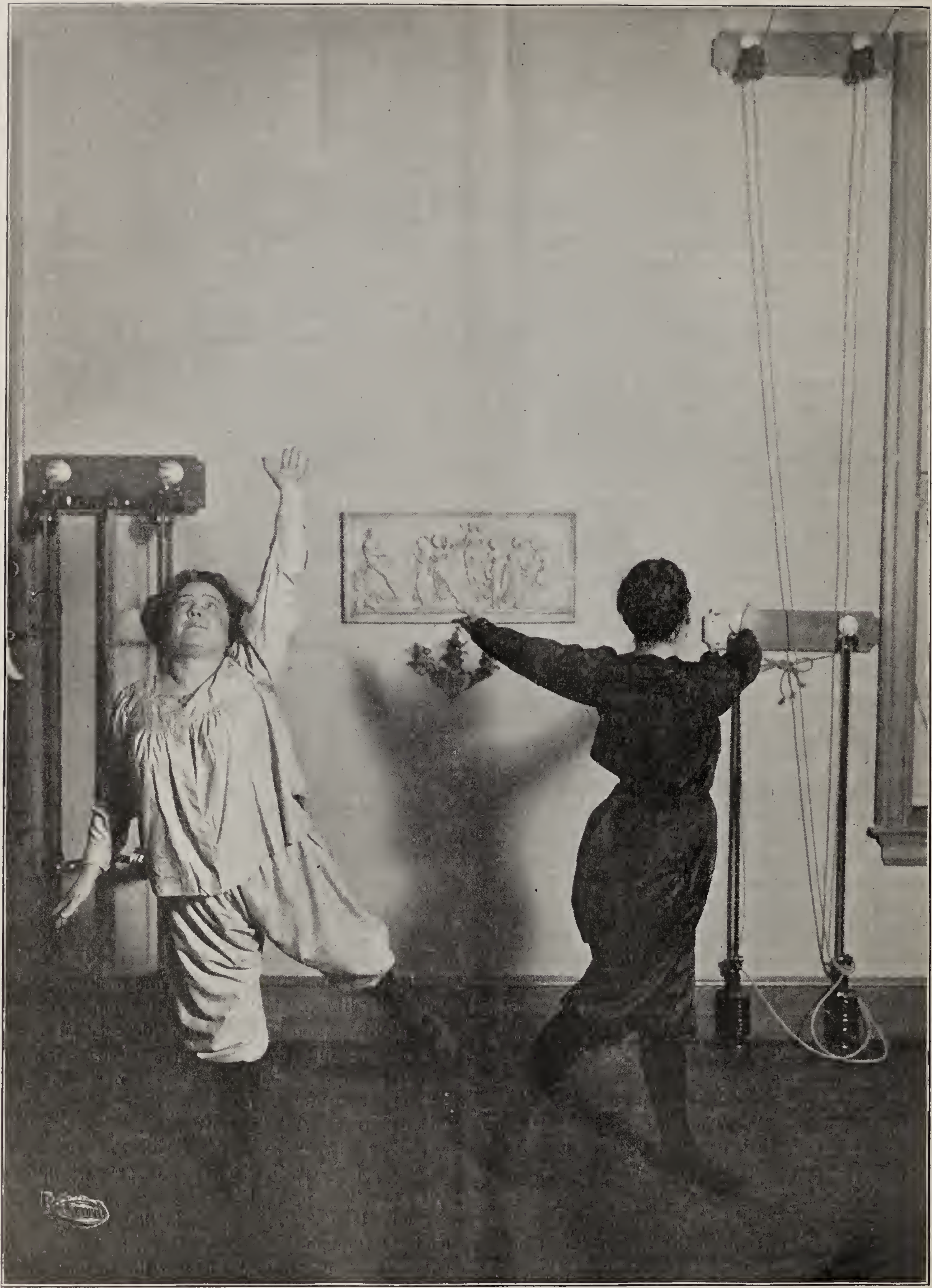

FIG. 1.—Free gymnastics for muscle-stretching and balance.

[Full stretch and side balance.] [Side twist and front balance.]

tended. The trunk is erect, the chest thrown upward and forward, the abdomen sloping slightly backward. The head is held erect, with the chin drawn in; the arms hang freely and easily, and the shoulders are evenly poised.

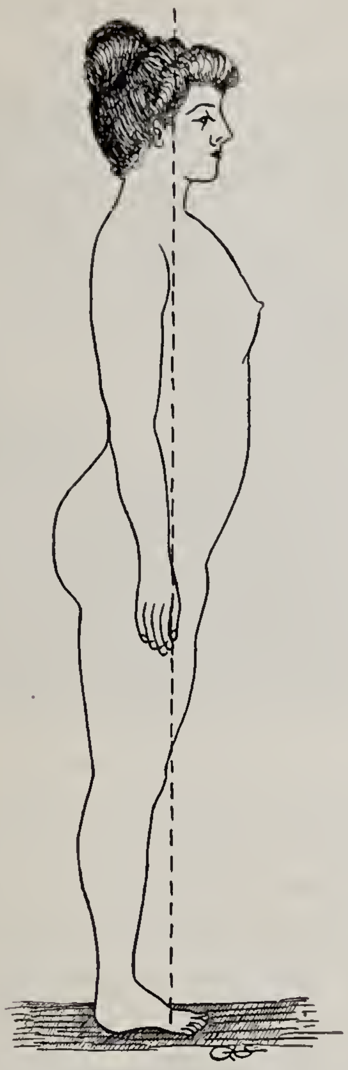

FIG. 2.—Correct standing position.
[Drawn after Kellogg's figure of a German peasant woman aged twenty-nine years.]

A variation of this poise consists in placing the feet at an angle of forty-five degrees, one slightly in advance of the other, the heel of the forward foot pointing to the arch of the rear foot at a distance of two or three inches, the weight of the body being chiefly borne by the arch of the forward foot. The advantage of this poise is that the body may be most readily brought from repose to action without shifting the position of the feet.

There are, of course, many varieties of faulty poise, but, if they are classified, it will be found that they correspond in their general characteristics to two types which are illustrated in Figs. 3 and 4. The first of these represents a very common form of faulty attitude. It will be noticed that the line that passes through the centre of gravity of the body strikes the heel, so that the weight of the body is not supported partly by the arch of the foot, as in the correct poise, but wholly by the heel. The knees are hyperextended, the abdomen bulges forward, giving the whole figure an "abdominous" look, and the chest sinks in, while the head is inclined forward and the chin points upward. The lumbar lordosis is slightly diminished, and the upper part of the spine is more rounded than it should be. This attitude is traceable to the defective development of the muscles in the region of the waist, due to the pressure of the corset. These women relax the muscles of the trunk and seem to sink into their corsets in such a manner that the vertebræ and the corset support the upper part of the trunk, the musculature of the waist taking little or no part in the balancing and supporting of the body upon the pelvis and hips. This type of faulty attitude is met with in women of all ages and all varieties of physical development, but it seems to be more common in middle-aged, stout, and large-boned women, whose waist-muscles are atrophied through long disuse and corset pressure. A certain proportion of the young women of the cities, also, assume this wrong poise, especially those whose occupation is sedentary.

Fig. 4 shows the second type of abnormal standing position. It will be seen that, although this poise is the very opposite to the attitude described in the preceding paragraph, it is none the less faulty. Unfortunately, this poise has become rather more prevalent of late, for it is affected by women who aim to acquire what is termed the "French figure." A certain degree of muscularity of the trunk muscles is necessary for the maintenance of this posture, and women who are deficient in this respect must needs have recourse to sundry artificial appliances the existence of which is not supposed to be known to the "mere man." Essentially, this abnormal poise is an exaggeration of the correct standing position. The line passing through the centre of gravity strikes the heels; the knees are hyperextended and the muscles of the calves

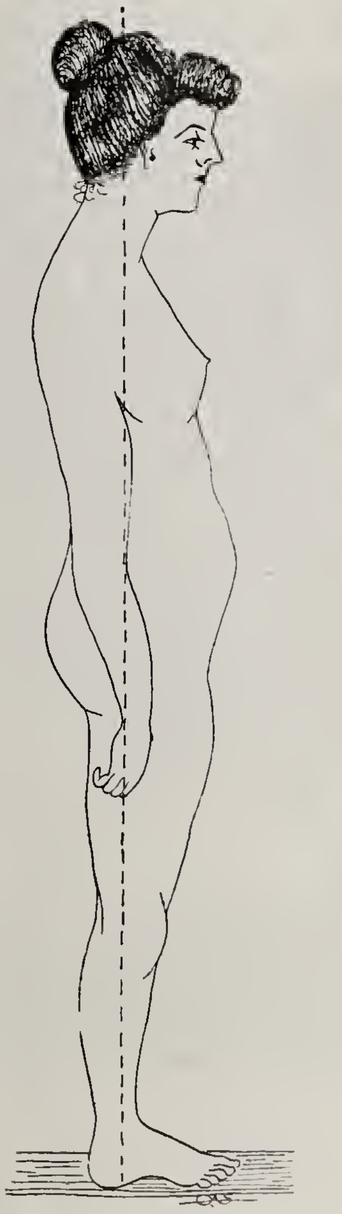

FIG. 3.—"Abdominous" standing position.

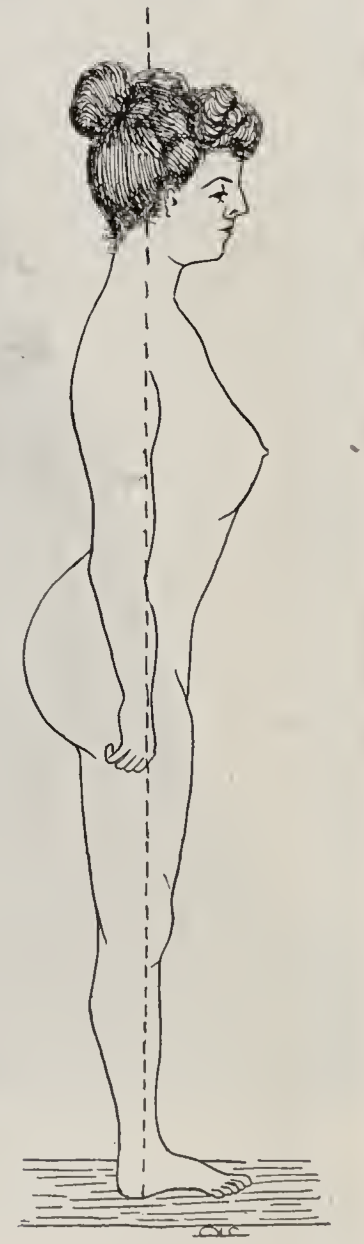

FIG. 4.—Exaggerated standing position.

and thighs are tense; the pelvis is tilted forward, producing a sinking in of the abdomen and a marked prominence of the hips and sacrum. The tilting forward of the pelvis necessitates a compensatory curve of the spine and increases the lumbar lordosis. The chest is projected forward and downward, the shoulders slope down, and the arms are held closely to the trunk to accentuate the peculiar unnatural shape of the bust that characterizes the Parisian "figure." The head is held erect, but the chin is tilted upward, probably in order to bring out more vividly the sloping line of the chest. The wearing of high-heeled shoes still further increases the distortion of the trunk caused by this attitude. The high heels tilt the body forward to a degree commensurate with the height of the heel. This tendency of the body to fall forward is compensated for by a contraction of the muscles of the foot and of the leg, resulting in stiffness and hyperextension of the knee, and the body is also balanced by an increase of the lumbar hollow. The projection of the chest downward is a resultant of the before-mentioned influences, and is necessary in order to sustain the equilibrium of the body. This attitude cannot be maintained for any length of time without the corset, for, without this support, this poise is a constant strain on the muscles of the trunk and lower extremities. The special corset which is now made for women who affect this poise, is characterized by a very low bust-line, and by a "straight" front, which presses the abdomen downward and backward; while the greatest compression is behind and at the sides, just above the hips, the line of pressure corresponding to an obliquely set belt, the upper end of which is at the spine, the lower at the lower end of the front of the corset. Finally, another detail of dress tends to maintain the upward projection of the chin, and that is the hat which is tilted downward over the eyes at an angle of forty-five degrees. Fig. 5 shows the ordinary attitude of a woman with the "French figure."

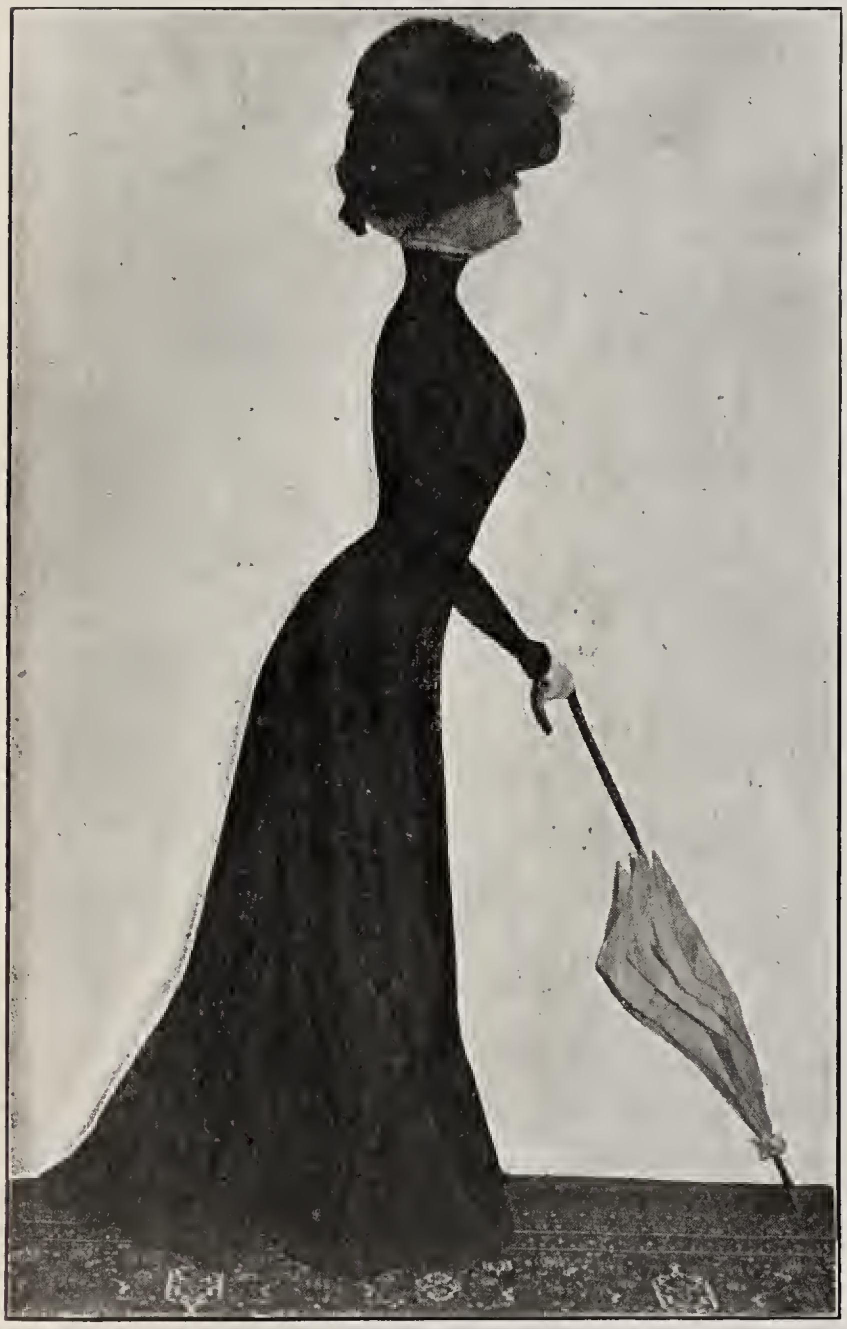

FIG. 5.

There are many variations in the mode of walking, and to a certain extent they are legitimate, for they represent the adaptation of the individual to the work to be done. On analysis, all methods of walking will be found to correspond to three main types. The first of these is the flexion or bent-knee gait (42), which is used by all uncivilized, sandaled, or moccasined nations, and also by all persons who are obliged to walk long distances in the shortest possible time over uneven ground. This gait has recently been officially adopted in some European armies on account of its convenience for prolonged marching. In this mode of walking, the body always leans forward to a considerable degree, the knees are always held slightly flexed, and the whole sole of the foot comes down to the ground at the same instant. This oblique position of the body, this elasticity of the bent knees, and this perfect play of the arch of the foot, make propulsion easier, the expenditure of energy becomes less in consequence, and the endurance of the walker is enhanced in proportion. Yet, this flexion gait is not graceful, and is not adapted for women except on long marching tours.

The second type of walking is the straight-leg gait of the soldier on parade. In this walk the body is held erect, the forward foot is fully extended and strikes the ground with the heel first, the ball of the foot coming down next, the other foot swinging in perfect cadence in front of the first, the heel again striking the ground first, etc. There is no question that this gait, however admirable it may be from a military point of view, does not conform to the standard of womanly grace. For this reason, and in compliance with the principle that abhors all jerky motion, I would discourage the teaching of marching in girls' schools and colleges. As a rule, the result is very ungraceful, the lines of thumping, shoulder-shrugging girls walking at a swinging cadence to the stirring strains of martial music, being anything but edifying. Nor is the shuffling, mincing entrance of the class to the majestic movement of Meyerbeer's Coronation March, the embodiment of grace. Let the girls be taught how to walk normally and gracefully, not to "march."

The third type of walking is the normal gait of the pedestrian on the well-graded surfaces of our city streets.

This should be characterized by the normal poise as described above (Fig. 2). The great toes should move in parallel lines, pointing directly forward; for while the outward pointing of the toes is normal in the passive standing attitude, it is not normal when the foot is in action. The walk with toes pointing out has been thoroughly inculcated into most of us by nursery maids, governesses, and dancing masters, and is the most potent factor in the causation of flat-foot (35). The foot should be placed on the ground with the ball of the foot, not with the heel, first, in order to give full play to the arch. (Fig. 6.) The knees should be very slightly bent, just enough to lift the foot from the ground as the limb swings forward. The spine must be mobile, so as to compensate, by a slight rotation, for the lateral motion of the pelvis at each step. The length of the steps must be regulated according to the length of the pendulums represented by the lower limbs. The arms must swing slightly with each step, the movements being greatest at the extremity of the limb, and almost imperceptible at the shoulder.

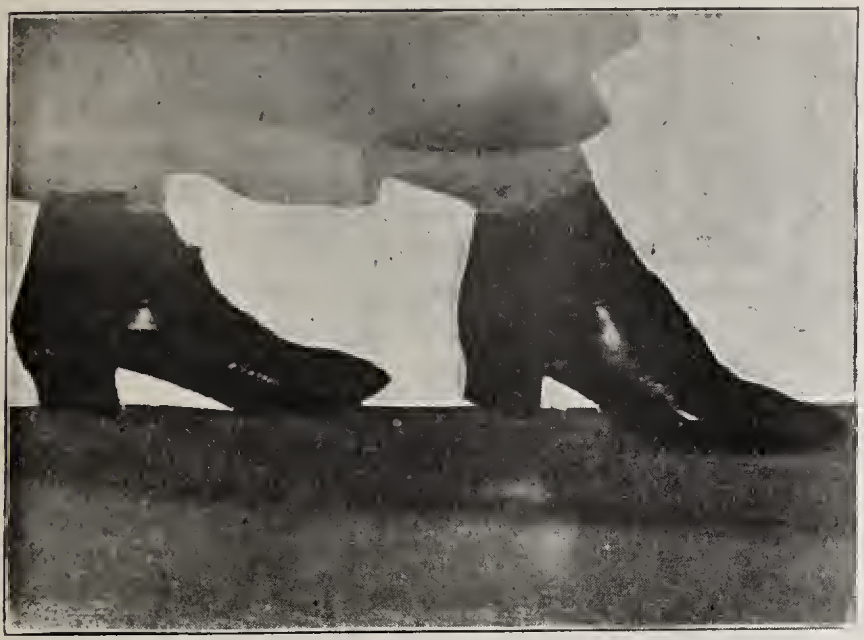

FIG. 6.

There are many variations in the common faulty modes of walking, but the chief faults are found in women who assume the wrong attitudes described above. As a rule, these women violate all the principles of normal walking. Their toes point out, their knees are stiff and overextended, their heels come down first (Fig. 7), and the whole weight of the body is borne by the heel until the other foot swings forward. The arms are held pinioned at the waist; their hips oscillate at each step, the spine being immobilized by the corset and unable to compensate for the rotation of the pelvis which occurs in walking, and, for a similar reason, the shoulders move forward and backward. The other characteristics of the poise depend upon the type of posture assumed.

Breathing exercises should form a part of the programme of every gymnasium for women. Most of us were told, when we studied physiology, that the mode of breathing was the same in both sexes until the age of puberty, but that from this time on the girl developed the thoracic or clavicular type of respiration, while the boy's breathing remained "abdominal." Kellogg (37 and 41) has shown conclusively that both these notions are false. The normal breathing of man is not performed by the diaphragm and the abdominal muscles alone, but also by the muscles of the lower part of the chest. In fact, the latter muscles play an important rôle in normal breathing. The normal respiratory act of woman is exactly like that of man, and the reason why the majority of civilized women only use the upper part of the chest to breathe with, is simply that they cannot use any other muscles on account of corset pressure. Kellogg has also shown that the actual average chest expansion in corseted women is only one-quarter of an inch, whereas that of the Chinese woman, for example, does not differ from the chest expansion of the average man. The normal respiratory act is a combination of all three "types"—the clavicular, the intercostal, and the abdominal, with the greatest predominance of the intercostal. The proper habits of breathing can only be secured by systematic exercise and sensible dress reform.

To this category of exercises also belongs tone production. Wrong methods of breathing are the cause of the high-pitched, throaty, and unmusical voice of so many women. Nothing is so fit an accompaniment of womanly grace and culture, nothing gives a woman such self-control and such perfect nervous balance, as a perfectly modulated speaking voice in which the deep chest-tones have their proper places; nor is anything so wear-

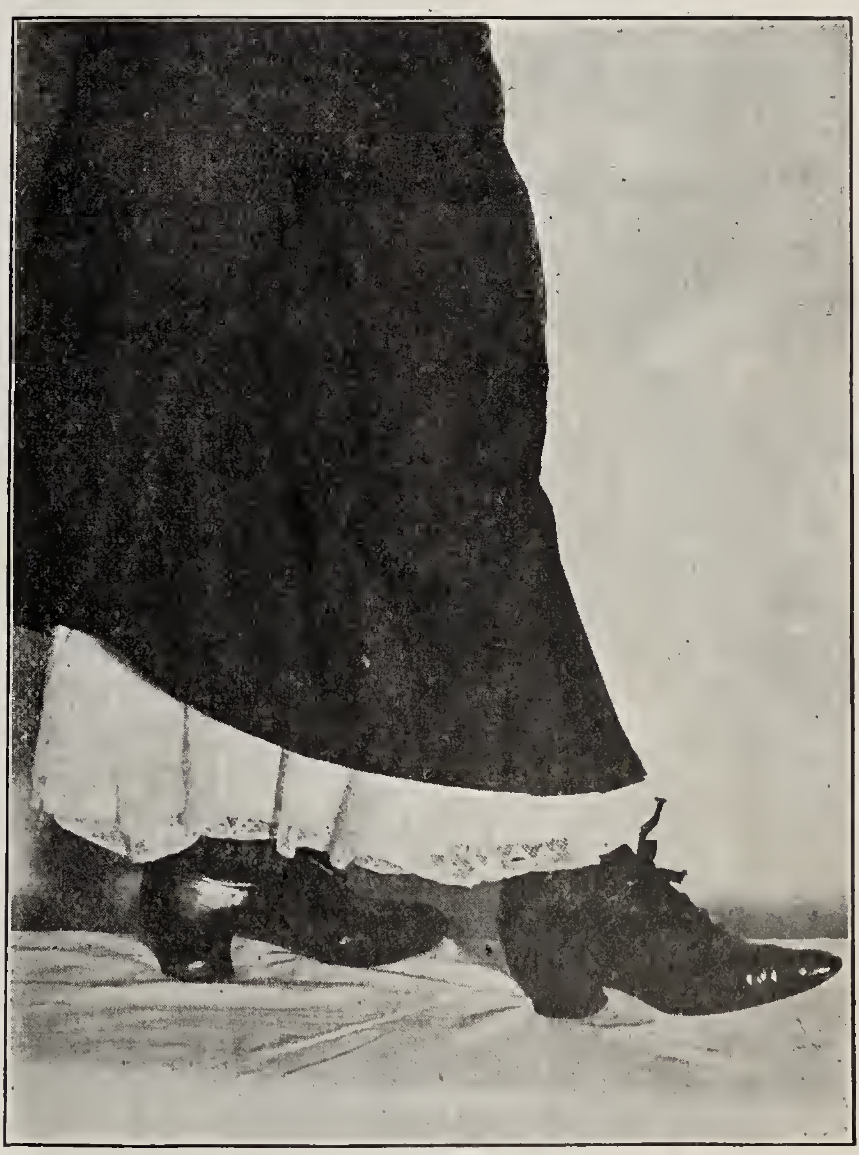

FIG. 7.

ing on the nerves of both speaker and listener as a voice of abnormally high pitch, lacking the quality of the chest tones. Finally, the link that connects mental to physical culture should not be neglected. I refer to the exercises in correct enunciation. Without these, the practice in tone production will not accomplish its purpose, for a wrong enunciation, a slurring, slovenly manner of speech, should never be heard from the lips of a woman who has received a rational mental and physical training.

In conclusion, I take this opportunity to express my indebtedness to Mrs. Mary Perry King, Director of the Gymnasium for Women in the Vandyke Studio Building, New York, for her kind assistance and for many valuable suggestions while this article was in preparation.

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180 EAST SEVENTY-NINTH STREET.

Police Patrol Wagons to be Equipped with Medical Supplies.—The Allegheny, Pa., patrol wagons have been equipped with medical outfits, and the sergeants have been instructed to administer temporarily to the sufferings of victims of accidents. The equipment includes antidotes for poisoning, dressings for burns, and almost everything that is used in emergency cases.

THE ÆTIOLOGY OF ECZEMA, WITH REFERENCE TO RECENT VIEWS AS TO ITS PARASITIC ORIGIN.

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(*Concluded from page 851.*)

II. Disturbing Occupation.—Occupation will be seen later to play a considerable part in the production of eczema in the way of exciting the eruption, but it may also act as a predisposing cause in the several directions of being (1) sedentary, (2) requiring long standing, and (3) involving confinement in bad air.

1. Sedentary Occupation.—Not only does this act in a prejudicial way, by inducing a sluggishness of the system, constipation, etc., which predisposes to eczema, but sometimes it will be observed to operate in a very striking manner. Occasionally the sudden change from an active outdoor country life to the city, and a sedentary life, will be followed by the gradual development of eczematous lesions, which will often persist until the habits of life are materially altered in the direction of exercise.

2. Occupation Requiring Long Standing.—While the sedentary occupation operates in one manner, disadvantageously to eczema, occupation requiring long standing acts quite differently and often very strikingly. Thus, laundresses, car-drivers, clerks, wood-turners, and others will often be troubled with intractable eczema of the lower extremities, even if there is not a very marked varicosity of the veins. The mechanical pressure of the column of blood gives ready cause for the exudation of fluid, while it hinders the absorption of effete matter by the capillaries and lymphatics. It is interesting to note that those occupations which call for activity in the feet do not produce these results: the mechanical aid in propelling the venous blood given by the contracting muscles balances the result of pressure. Thus, while laundresses are often incapacitated with eczema of the feet and legs, girls doing upper housework are seldom thus troubled; while car-drivers are affected, car-conductors are less frequently so; postmen who walk many miles daily are seldom troubled, etc.

3. Confinement in Bad Air.—Acting as a depressant of the vital powers, this is often seen to predispose to eczema, and need not be further dwelt on.

III. Disease.—Various conditions of disease and accident often act as predisposing causes of eczema, such as (1) exanthemata, (2) exhausting sickness, (3) malaria, (4) accident, and (5) surgical operations. They all operate as depressing agencies, and time and again have been observed to be followed by eczematous eruption.

1. Exanthemata.—These often operate apparently as predisposing causes of eczema, as the eruption is not infrequently seen to develop either for the first time or to recur shortly thereafter. The weakening of the power of skin resistance by their influence probably accounts for their operation. Vaccination is sometimes followed by eczema.

2. Exhausting Diseases.—Eczema is often seen to develop or recur after many illnesses, and the grippe is especially prone to be thus followed. No explanation is offered except that of vital exhaustion and especially in the line of neurotic debility.

3. Malaria.—Some writers have endeavored to place malaria as an active predisposing cause of eczema, but I have never been able to satisfy my mind that there was any very definite connection. Among hundreds of patients seen in the hospital with malarious affections, eczema was exceedingly rare. But not infrequently a malaria cachexia will seem to be at the bottom of the eruption, which was cured only after a very active treatment with quinine.

4. Accidents.—Not infrequently eczema will develop soon after accidents, in such a manner as to indicate some connection, probably through the nervous shock. Sometimes also a limb which has been the seat of an injury, such as a fracture, will for a long period exhibit the eruption, either alone or to a much greater degree than elsewhere.

5. Surgical Operations.—Not only may eczema develop beneath and around surgical dressings, but sometimes the shock and depression from them will be shortly followed by a general or localized outbreak of the disease elsewhere than at the offending part.

II. Exciting Causes.—These are seen to be of two classes: (*A*) Internal exciting causes, and (*B*) external exciting causes. Under each of these is a large and very divergent number of influences, all of which, however, have at one time or another seemed to be active agents in producing the eruption.

A. INTERNAL EXCITING CAUSES.—In this class will appear many of the elements already mentioned as predisposing causes, and many of them need not be dwelt upon again at large. But it is well to recognize that these same disorders, which when long existing may induce the disease, can, when they exist in an exaggerated degree, lead to an outburst of the eruption. They will be considered under the heads of: (1) Defective Nutrition; (2) Defective Hygiene; (3) Defective Assimilation and Excretion; (4) Neurotic Conditions.

1. Defective Nutrition.—The relations of diet to the production of eczema are most important and appear to be but little appreciated by the profession. Suffice it to say that in erroneous, excessive, and defective diet are to be found the efficient causes of very many of the cases, both in those which appear to have some hereditary influence at work and in multitudes where no such influence is traceable. This is clearly seen in the case of infants, where the eruption often resists treatment until there has been an entire change in the alimentation of the patient.

In older children and adults this is also constantly observed, and occasionally acute outbreaks of the eruption can be pretty directly traced to errors in eating or drinking. The use of alcohol may often precipitate an attack, and the same is true of the abuse of tobacco. In the easier walks of life, as seen in private practice, there is often an excessive consumption of food, which by clogging the system generates the eruption. Among the poorer classes the eruption can be often traced to a debility arising from deficient nutrition, and the eruption yields to a full and nutritious diet.

2. Defective Hygiene.—Erroneous clothing, bathing, and exercise, often act as exciters of the eruption. In infants it is constantly seen, that an eruption of eczema will develop from overheating, with a mass of wraps, or from a chilling of an unprotected surface; and the same may occur in older life. The eruption is frequently excited by injudicious bathing, and overheating by exercise can bring on the eruption, quite as much as the derangement of the system resulting from the want of proper exercise.

3. Defective Assimilation and Excretion.—It is no uncommon occurrence to see eczema develop coincidently with, or consecutively to, an acute dyspepsia, while constipation will constantly be followed by outbursts of the eruption. The value of proper purgatives in eczema shows how intimately this eruption on the skin is connected with abdominal disorder, including hepatic derangement. We know as yet very little in regard to functional disorder of the pancreas, but this organ must share in general assimilative derangement, and cannot be without its influence in connection with the causation of eczema. As a result of these disturbances of assimilation and disassimilation we have urinary derangements which are constantly seen to be accompaniments of eczema; and so frequently do we find a deranged urine with outbursts of the eruption that it cannot be questioned that there is some ætiological connection.

Auto-intoxication, either acute from intestinal fermentation, or chronic from the results of faulty metabolism, is constantly seen to be followed by the development of the eruption of eczema, which will be rebellious while it exists and yield readily as it is removed.

4. Neurotic Conditions.—To such a degree are nervous disturbances observed in connection with certain cases of eczema that the term "neurotic eczema" has become to be well recognized, and numberless observations are on record to show that the eruption can appear, even for the first time, under the direct causative influence of the nervous system. This may occur in a direct manner, from nervous exhaustion, strain, or shock, or the nerve perturbation may be of a reflex character. To the latter belong reflexes which have a gastro-intestinal, sexual, ocular, or dental origin, illustrations of each of which could be given did time and space permit.

B. EXTERNAL EXCITING CAUSES.—We come now to speak of the local causes of eczema, which by some are exalted to much greater prominence than can rightly be assigned to them. Careful observation and study of some four thousand cases of eczema in private practice, of all of which I have notes, to say nothing of a much larger number occurring in public practice (and some of these cases have extended over years of time, with many relapses at longer or shorter intervals), have convinced me that altogether too much stress has been laid upon external agencies as the real cause of eczema. I have searched in vain for the operation of the various irritants named in the books, more especially among intelligent patients in private practice, and have to say that in the vast proportion of instances I have not been able to discover any local cause which would account for the existence or continuance of the eruption. And, on the other hand, we see any number of individuals exposed to a greater or less amount of local irritation who escape all skin lesions, or if inflammation is produced it appears only as a transient dermatitis, and should be carefully differentiated from true eczema.

On the other hand, experience shows that a certain portion of cases of eczema do seem to have their starting point from some local irritation, and in other cases the eruption is kept up by local causes, and remains until these are removed. There are four general groups in this class: 1. Atmospheric Influence. 2. Mechanical Irritants. 3. Chemical Irritants. 4. Parasitic Elements.

I. Atmospheric Influences.—The effect of external influences connected with the atmospheric can constantly be observed in eczema, these relating to: (1) heat and cold; (2) barometric disturbances; (3) the seasons.

1. Heat and Cold.—The effects of these are strikingly shown in infantile eczema. The delicate skin, which has been formed and long nourished and protected in the warm uterus, is suddenly exposed to a lowered temperature and to many harsh and injurious agencies, and readily takes on eczematous inflammation. At various ages the agency of heat and cold are also constantly visible in exciting the eruption.

2. Barometric Disturbance.—We know as yet very little definite in regard to the influence of barometric disturbances in causing disease, but what little has been observed shows that at times this is an important factor. Old eczema patients can very frequently predict the occurrence of a storm from their sensations, and not infrequently the eruption will be seen to develop with each change.

3. The Seasons.—Undoubtedly with the changing seasons we have changes in the system which predispose to and excite disease, and many cases of eczema will develop afresh at certain seasons. Eczema in adults is certainly more prone to appear in winter, while in summer, in poor practice at least, we are very apt to have an increased number of cases of infantile eczema, with boils and abscesses. It does not appear to be the temperature alone which affects the eruption so much as it is various other elements of diet, clothing, etc., which are connected with the changing seasons.

II. Mechanical Irritants.—Given a tender skin, liable to eczema, and mechanical irritation will frequently be seen to be the active exciting cause for certain patches of the eruption. This irritation may come from (1) scratching and (2) friction.

1. Scratching.—Foremost among the local causes of eczema is placed scratching, by Hebra and the followers of the school of local ætiology; and it cannot be denied that in one so disposed the eruption may be developed in this manner. The scratching takes place from two causes: (1) to relieve pruritus and (2) to remove accumulations, as the crusts already formed by eczema. The pruritus for which scratching is done may, again, be (1) idiopathic or (2) reflex. Long before there is any eruption of eczema there is sometimes an idiopathic pruritus, which is perhaps often to be accounted as the first symptom of the eruption, which may in turn be due to acidity or auto-intoxication, as an urticaria. Or, again, the pruritus may be entirely a reflex affair, as, for instance, in certain cases where pruritus about the scrotum and anus arises from a reflex irritation caused by urethral stricture or intestinal worms (the latter may also cause an itching about the nose), to relieve which scratching may be practised, resulting in eczema. When eczema is once developed, and there is an exudation, with the formation of scales and crusts, scratching also undoubtedly aids greatly in increasing the eruption.

2. Friction.—Accidental friction from (1) occupation, (2) clothing, (3) accidental, is constantly seen to be the starting-point of eczema, and need not be dwelt upon here.

III. Chemical Irritants.—Numerous external irritants of chemical nature have been observed to be followed by the development of eczema in different localities. These may be considered under the heads of (1) mineral, (2) vegetable, and (3) animal secretions.

1. Mineral Irritants.—Various aniline and other dyes in clothing, soap, and washing powders, as also lime, arsenic, and other substances used in occupation, and sulphur, mercury, tartar emetic, etc., used in medication, may all be the immediate exciting cause of an eczematous eruption.

2. Vegetable Irritants.—Various vegetable substances may also excite eczema, and poison ivy is frequently seen to originate the eruption, although generally it produces only a transitory dermatitis. Also substances used medicinally, such as arnica, thapsia, croton oil, capsicum, chrysophanic acid, and even mustard, may sometimes start up an eczematous eruption.

3. Animal Secretions.—Disordered sweat and sebum may often prove very irritating to the skin and cause eczema, as in the genital region, in the axillæ, beneath the breasts, etc. The urine, when allowed to remain in contact with the skin, will do the same, as also the fæces. At times the mucus from the nose, vagina, etc., will prove very irritating and excite the eruption.

IV. Parasitic Elements.—The occurrence of eczema in consequence of the presence of animal parasites, and the consequent scratching, in scabies and phthiriasis, and also from irritation by bed-bugs, fleas, etc., is too well known to require more than mention.

The so-called eczema marginatum, occurring especially in the genital region, axillæ, etc., is now known to be one of the forms of ringworm, due to the presence of a trichophyton fungus.

In certain cases of diabetes, especially in the female, there will be an eczematous eruption about the genital region due to the growth of the penicillium fungus in the skin. And in certain rare cases the growth of the aspergillus in the ear will give rise to an eczematous eruption in this locality.

It is well known that the pus cocci give rise to many of the impetiginous lesions often seen in connection with eczema.

There remains to be considered the influence of micro-organisms proper in the production of eczema.

Some years ago, in 1887, Dr. Unna, of Hamburg, first presented his views in regard to what he called eczema seborrhoicum, with which his name has since been indissolubly connected; and dermatology is greatly indebted to him for his indefatigable work in this and other lines. The scientific world has practically accepted seborrhœic eczema as an entity, with a micro-organism as a probable ætiological factor. But, although this matter has been so long before the profession, and a host of earnest investigators have studied it clinically and microscopically, with abundant bacteriological researches, there is really no unanimity in regard to the character of the parasite; nor has the disease been reproduced by inoculation of pure cultures—except as indefinitely maintained by Unna and also, in a preliminary report, by Elliot and Merrill, in 1895, which has not been further verified.

Not content with the alleged parasitic character of seborrhœic eczema alone, Unna has alleged the same for all eczema, and has written very largely to prove the position by his microscopic and laboratory work; and his assertions at once received more or less acceptance, and many investigators entered the field of study. It would lead us far beyond the proper limits of this paper to attempt to give any idea of the work and arguments which have been presented by those who favor and those who oppose the idea of a parasitic origin of eczema, which have been most admirably presented by Brocq, of Paris, in an elaborate book entitled *La Question des eczémas,* covering two hundred pages.*

The subject of the parasitic origin of eczema was very fully considered at the Fourth International Congress of Dermatology and Syphilography this last summer, in Paris, and, while Unna defended the same, and Galloway, of London, somewhat supported him, the other two essayists, as also all who took part in the discussion, were opposed to the theory, and held the same not proved. The results of the discussion were well summed up in the *British Journal of Dermatology* for September, 1900.

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* Brocq. Paris: Masson & Cie., 1900.

1. The majority of dermatologists do not regard eczema as a parasitic disease, due to a specific organism, nor as a parasitic disease the various forms of which correspond to different organisms.

2. The morococcus of Unna is almost universally regarded as an ordinary staphylococcus, with a slight peculiarity in its growth and grouping, and not as a perfectly distinct micro-organism.

3. Several experimenters regard the early vesicle of eczema as a-microbic, while others find in the fresh vesicles various forms of cocci.

4. Many observers are convinced of a local predisposition to eczema in the seborrhœic state, and a general predisposition in the circulation of various toxines in the skin, from the improper assimilation of food and other toxine-producing pathological conditions.

5. Most observers are agreed that in the later stages of eczema, staphylococci and streptococci play an important part in the evolution of the lesions.

In looking back over the multitudinous and diverse predisposing and exciting causes which appear in the list presented, and comments thereon, it is quite natural to question whether a single disease, eczema, can have such a variety of causative elements; and at first sight the theory is very plausible that what is commonly known as eczema, often so greatly varied in its different manifestations and phases, may be composed of several different diseases, each due to a variety of micro-organisms, of which there are known to be so many varieties existing on the healthy skin; even as we have already isolated from eczema certain eruptions, such as lichen planus, dermatitis herpetiformis, etc. The question is still under discussion, as to just what should be the definition of eczema, and just what conditions should be included under this name. But vast clinical experience has pretty well established the essential features in regard to most cases, and observation all over the world has verified the ætiological relations of most of the items named. Those who really see the most of this disease and study it carefully in private practice are inclined to agree with the remark of Brocq, of Paris, namely, that "eczema is the image itself of the life, the reflex on the skin of the constitution of the individual."

As already stated, local causes undoubtedly play a not inconsiderable part in actually calling forth the eruption in many localities, but only in those who have a tendency thereto. Besnier, of Paris, has attempted to put the idea of the formation of the eruption in the single word "eczematization," and Wilson, of London, was wont to speak of the "eczematous diathesis." In the end we must again confess that we do not know yet the real cause, and content ourselves with recognizing the concomitant symptoms or phenomena in the economy which experience has shown to be of more or less ætiological import. In regard to parasitism, the most that has been shown is that some of the micro-organisms which exist abundantly on the skin do, when it has taken on disease, cease to be saprophytic and exercise more or less of a baneful influence in heightening the eruption.

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POST-OPERATIVE HÆMORRHAGE.

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Recognizing the immediate tolerance of the peritonæum to extensive handling by clean hands and aseptic instruments, the surgeon of to-day is disposed to look too lightly upon the remote results of such manipulations. Extensive bowel and other adhesions are separated with a recklessness in some instances that seems almost appalling, yet Nature covers the denuded surfaces in most instances with a security deserving much credit; bleeding surfaces are left for the efforts of Nature to take care of or control.

If a similar hæmorrhage in other parts of the body should occur during an operation, the surgeon would not think of leaving it to Nature's efforts. Patients are lost frequently from a post-operative intraperitoneal bleeding that should have been averted or, having occurred, controlled by a timely reopening of the peritonæum.

I know of no condition in my work that is more horrifying than to realize that a patient upon whom I have just performed an abdominal operation is bleeding dangerously. I know of no condition under which the surgeon will more quickly realize the importance of his work and appreciate more fully the great responsibility existing in every abdominal operation.

An avoidable accident to a patient that may result in the death of that patient is a very serious matter and should not be passed over as a trifling affair by the surgeon. Trying to give contentment to the sorrowing family and friends by assuring them that the all-wise Providence willed it thus may satisfy the unsuspecting and confiding family circle; but does it relieve the mind of the surgeon or save the patient? No.

The use of unstable ligature material on large pedicles and in localities where the same is quickly absorbed has cost quite a number of patients their lives from post-operative bleeding. It has been my misfortune to lose one patient from a post-operative hæmorrhage, the cause being the use of a catgut ligature. After a large series of cases in which I used silk (I use it altogether now) without an accident of this character, I was persuaded to use catgut in a simple and easy case. This case was in a private residence in a distant city. Three hours after the operation my patient died from hæmorrhage, the result of a slipped catgut ligature. I know that the ligature was responsible for this death. It should have been avoided. Dispensations of Providence are garments that may be used to hide the naked truths from an over-credulous public, but before the eyes of the conscientious surgeon he sees the slanderous injustice of hiding his blunders under such sacred raiment.

That many fatal post-operative hæmorrhages are unavoidable no one will deny, and it has been the experience of almost every surgeon to have such. The recognition of the possibility of a patient's bleeding to death following an operation only makes the surgeon more careful to avoid it and to resort to the best method of speedily checking it when it has taken place.

There is no condition in which quick surgery is more essential; I mean by quick surgery, not alone the getting at the work quickly, but rapid work after the secondary operation has begun. A patient who a few hours previously has gone through a severe operation, probably of long duration, or of a character to produce shock, is not a very good subject to be given an anæsthetic and undergo a reopening of the peritonæum. If the surgeon does not recognize this, the majority of his patients who are reoperated upon will die. No chronic or deliberate surgery can be tolerated by such a patient.

In a late paper I noticed that the surgeon regrets very much his efforts at saving two patients suffering from post-operative bleeding. In his histories he says that after re-anæsthetizing the patients the uterine arteries were ligated *per vaginam,* the abdomen opened, and the bleeding vessel secured. Both patients died. Why? Because too much time was used in securing the uterines, and too much blood lost before the bleeding vessels were tied through the abdomen, and because the whole time of anæsthesia was more than the patient could stand. Pathological discussions and other time-consuming topics should be postponed while checking a post-operative hæmorrhage. Prophylaxis has here its best application. All vessels liable to bleed should be tied at the time of the operation, silk being the safest ligature material.

The use of the Trendelenburg position, while it enables the surgeon to see the bleeding points and to tie them most efficiently, may by gravity, in a patient with a weakened heart, keep a vessel from bleeding during the operation that may bleed profusely on the patient's assuming the horizontal position when placed in bed. This is especially true of capillary oozing from adhesions.

The drainage, as has been urged by Price and others, is not only valuable as a sentinel, but has a direct hæmostatic power. All recognize the necessity of a clot, firm in character, to control oozing or even bleeding from larger vessels. Blood in the air-tight peritonæum, in the presence of a peritoneal temperature and abundance of lymph, will not coagulate quickly or at all firmly, as all will agree who have opened the peritonæum in cases of ruptured tubal-gestation sac or other conditions where there has been a free intraperitoneal bleeding.

A drainage-tube in suspected cases for a few hours will do no harm and will surely give the indications of a hæmorrhage. If the bleeding is from small vessels, the keeping of the peritonæum dry will be a potent factor in controlling the bleeding. Of course, the tube should not be used unless some reason is present for its use.

While the tube is of much use in suspected cases, its utility is lost in the case where a hæmorrhage occurs in a case in which such an accident is not expected. Thus, my three post-operative hæmorrhages have been in easy cases, where such was least expected. My other secondary operations for bleeding have been in patients of other surgeons. I was called in their absence to save the patients. In each instance I succeeded.

The symptoms of a concealed hæmorrhage are very much like those attending shock, and, if the symptoms alone were relied upon to make a diagnosis, many errors would result. The pulse is increased in frequency in both, and diminished in force equally in the two conditions. There is a sighing respiration in each, the features are pinched and the surface is blanched in the two, the skin is clammy in both, the patient is comfortable and indifferent in each, the pupils are dilated and respond slowly in either condition.

How is the diagnosis best made? Take, for instance, a fairly strong patient, remove an ovarian tumor from that patient, occupying fifteen to twenty minutes in the operation. There are no adhesions, there is a small pedicle, a silk ligature is used, and the patient is put to bed in good condition at 9 A. M., with the pulse 80, the temperature 98° F., and with no shock. Now visit this patient at 3 P. M. the same day and find her with pupils dilated, features pinched, free from pain, the skin white as marble, the lips shrunken and pale, the pulse 160 and very compressible, with a cold, clammy perspiration, all symptoms of shock or hæmorrhage. Analyze the history of this case, and experience will say that a patient leaving the table in the condition of this patient, having had no evidence of shock or anything done to produce shock, has an internal bleeding from a broken or slipped ligature, and I should quickly dispel the doubt, if any existed, by cutting just one suture and introducing a tube or an artery-forceps.

Take another case -- extensive bowel adhesions have been separated in enucleating a growth, the operation is a very long one, the patient is more or less shocked at the completion of the operation, this condition continues until it assumes an alarming state, and the question arises, Is this a continuance of the shock, or is it in part, or altogether due to a bleeding? If a tube had been introduced, no doubt need exist, but in the absence of the tube there is nothing absolutely reliable to guide us but the cutting of a suture and opening a small portion of the wound. This can be done with absolute safety.

On the other hand, if this patient left the table in good condition and a few hours later presented the shock-hæmorrhage picture, it would be quite safe to diagnosticate hæmorrhage and act accordingly. As a rule, the first evidences of shock begin during the operation, and many cases of secondary shock in reality are cases of post-operative hæmorrhage. Each case is an individual; the experience of the operator and his knowledge of what was done, and who did it, will lend much aid in determining the cause of the symptoms manifested, as well as the probable location of the same, if from a bleeding surface or vessel.

If convinced that the patient is bleeding and that the loss of blood will prove fatal, the surgeon's only duty is plain, and he should not shirk it, while giving strychnine, using hot applications, etc. The patient is not safe until the bleeding is controlled. I do not mean a slight oozing such as we often see in the tube in adhesion cases, but by hæmorrhage a loss of blood that *quickly* shows its dangers by the rapid failure of the patient's vital forces.

It has been my misfortune to lose one patient operated on from a hæmorrhage coming on a few hours after ligating a small pedicle with catgut. The abdomen was reopened, but the patient was dead or had ceased breathing when I had begun. The abdomen was full of blood. I have reopened the abdomen in two of my cases besides this fatal one; in both large quantities of blood were lost, but in both recovery followed. In one case, in the practice of another surgeon, I reopened the abdomen, saving that patient also.

CASE I.—A man, twenty-three years old. Interval operation for recurring appendicitis. Very few adhesions. Operation of short duration. No shock. Abdomen closed. Five hours later he manifested evidence of loss of blood, by the pulse, etc. (there being no reason for shock). The abdomen was reopened and found full of blood and the patient was pulseless. I found bleeding coming from a large branch of the deep epigastric artery. This was ligated at the second operation, having escaped my notice during the first operation and, being in the lower angle of the incision, having retracted so that the closing suture missed it. The duration of the operation to stop the bleeding was ten minutes. During this time the nurses introduced four pints of hot saline solution into the bowel, and after the bleeding was controlled the median basilic vein was opened and four pints of normal saline solution introduced, at a temperature of 112° F. This brought a pulse of 140. He was placed in bed with the head lowered, and the other median basilic vein was opened, and three pints more of saline solution were introduced. This gave him a pulse of 120 and of good volume. An hour later four pints more were introduced into the rectum, thus making seven pints in the veins and eight in the colon, all of which was retained. He recovered. Of interest in this case was the hæmorrhage from a parietal vessel.

CASE II.—A woman, twenty-four years old. A large parovarian cyst, with a small pedicle, which was transfixed with good strong Chinese twist, leaving a good "button." There was not a single adhesion. The time of the operation was twelve minutes, and there was no shock. She was conscious in twenty minutes after being placed in bed, her pulse was 76, and her temperature 98.5° F. Six hours later I was hurriedly called, and found her with evidence of a dangerous hæmorrhage. Recalling the operation and its easy performance, and the security of the ligature being almost assured, knowing no reason why she should have symptoms of shock, I was confused somewhat to explain the source of the symptoms, yet my intuition—if the surgeon has such—told me that it was a hæmorrhage. I quickly cut one suture and introduced a sterilized hæmostat into the peritonæum; a gush of blood convinced me of the true condition. In four minutes the bleeding ovarian vessel was securely retied and the abdomen closed in six more. The vessel had been cut by the ligature or broken below its constriction. All the blood was free in the peritonæum. A drainage-tube was introduced at the secondary operation. Four pints of saline solution were introduced into the right median basilic vein and two hours later four pints more were thrown into the left. From having no pulse, she now had a good strong "salty" pulse of 120. Six quarts were introduced into the colon in a few hours. This patient made a good recovery.

CASE III.—A woman, twenty-three years old, had an ovarian cyst removed by a colleague. It was an easy case. There was a small pedicle and there were no adhesions. A catgut ligature was used. Twenty-four hours later she presented the usual symptoms of hæmorrhage. The abdomen was reopened and the vessel secured with silk. A drainage-tube was used, and the saline used as in the other cases. Recovery followed.

The proper use of the normal saline solution in restoring patients in cases of shock and loss of blood is one of the most valuable additions to our work within the last few years. Its application is so simple and easy and its powers for good are so large that I am surprised that it is not more extensively employed by the profession. The introduction of air into the vein at the time of infusion should be avoided, yet the danger from this source is not so great as is generally supposed. In one of my cases a faulty apparatus permitted a large amount of air to enter the vein. This was done by one of the nurses handling the bulb of the apparatus in such a manner that it let in air. Not a symptom was produced by this accident. I have in all my cases save this one used an ordinary fountain syringe and the cannula of an aspirating outfit or, as in one case, the glass nozzle of an ordinary medicine-dropper. Everything about the apparatus must be carefully sterilized. The salt should be baked and the water, when possible, filtered and always boiled. The height of the fountain will govern the pressure. Usually a three-feet pressure is all that is necessary. The fluid must be kept at a uniform temperature of 112° F. in the bag. A lower temperature will frequently cause the patient to "chill." I think it best to introduce the fluid in two sittings where a large amount is necessary. About ninety grains of common salt to a quart of water is approximately a "normal saline solution."

DEDUCTIONS.

1. In diagnosticating post-operative hæmorrhage, the operative history will aid much.

2. The symptoms of shock and those of hæmorrhage are very similar.

3. In suspected cases the cutting of a single stitch in the incision will tell.

4. The surgery must be quick and decisive in these cases.

5. In cases in which bleeding is expected the tube should be used.

6. Large quantities of normal saline solution will save many patients. This should be used both *per rectum* and by injection into the veins.

7. Strychnine, belladonna, etc., will not control bleeding from a uterine or ovarian artery any better than from any other artery.

8. The surgeon should do what his surgical conscience tells him is right.

Late researches in hæmatology make it appear that an internal concealed hæmorrhage may be demonstrated by a careful blood-count. This, it is stated, will show a decrease in the red cells and an increase in the white.

Very similar symptoms accompany shock from various causes, such as internal hernia, etc., none of which produce a change in the red cells. If an operation was performed for the relief of an inflammatory process, this test would lose its value in part, as there would exist at the time of operating a leucocytosis. Saline infusions apparently increase the white cells at first.

SPASMODIC WRY-NECK AND ITS TREATMENT; REPORT OF TWO CASES WITH RECOVERY.*

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It has long been known by all neurologists that clonic spasmodic wry-neck is one of the most intractable forms of muscular spasm with which we have to deal. Its true pathology is still obscure, and only in very rare instances has any lesion been found which could be regarded as a direct cause of the symptoms. Its nature has also been considered analogous to that of the occupation neuroses, such as writer's cramp, etc. With our present knowledge of the affection, it must be classed among the so-called functional nervous disorders. The muscular hyperkinesis is apparently due to irregularity in the action of the cortical cerebral cells innervating the muscles of the neck, the predisposing and exciting causes often being undetermined and varying in different individuals.

The two patients whose histories are here reported were both private patients, fortunate enough to be in pecuniary circumstances that enabled them to meet all necessary requirements.

Case I.—Mrs. X., thirty-six years of age, of Newark, N. J., was first seen by me in December, 1895. She is happily married and has two healthy children, the youngest being ten years of age. She has had no miscarriages. Since 1892 she had been treated by several physicians for various ailments, such as bladder and ovarian trouble, amygdalitis, and rheumatism.

About seven years ago, she suffered from pain and stiffness in the muscles at the back of the neck, which lasted several days. Five years ago she became the victim of excessive worry and anxiety, resulting from protracted litigation following the death of her two sisters, of acute pneumonia. Her father also died of pneumonia some years ago. A brother died of peritonitis last June. Her mother, aged seventy-five, is still living and in good health. There is no family history of nervous disease.

In February, 1895, she slipped and fell upon the icy pavement, and was "very much shaken up." She was able to get up and go home unassisted. No noticeable ill-effects followed the accident. About this time she had several "nervous attacks" in which she became emotional and cried readily, and felt "a grasping pressure at the throat."

In June, 1895, she first became aware of a frequent tendency of the head to fall toward the right shoulder. This continued, and she was often obliged to support the head with her hand. Soon after, the head began to turn toward the left involuntarily, and gradually the muscular spasm became more pronounced and troublesome. Menstruation is regular, with slight dysmenorrhœa. The bowels are inclined to be costive. The appetite is capricious. Her sleep is restless (no movements of the head during sleep). She had been treated with drugs for several months, without relief, and tenotomy of the muscles had been advised by her physician.

I found her to be a fairly well-nourished but anæmic-looking woman, weighing 131 pounds. She was quite nervous and apprehensive as to the possible incurability of her trouble. There was frequent and well-marked clonic spasm (which occasionally became tonic) affecting the right sternomastoid, the upper segment of the right trapezius, and the left splenius capitis muscles. The right sternomastoid was very much hypertrophied from constant overaction, and she complained of pain over the mastoid insertion of the muscle. Her pulse was weak, irregular, and of low tension, ranging from 80 to 100 beats a minute while she was at rest. Her hands and feet were cold. The heart, lungs, and abdominal organs presented no evidence of disease. The tongue was slightly coated and tremulous. There was tremor in the eyelids while she was standing with closed eyes. The pupils and ocular fundi were normal. Her eyes had been examined by Dr. T. Y. Sutphen, of Newark, and pronounced free from abnormity.

There was some tremor in the outstretched hands. Both knee-jerks were active. There was no clonus, and there were no stigmata of hysteria. The result of the examination was otherwise negative. The urine was acid, of a specific gravity of 1.030. Amorphous urates and uric-acid crystals were present in abundance. There was no evidence of bladder or renal disease. In fact, her general condition was that of neurasthenia of the lithæmic type.

Upon my advice she came to New York and was placed at rest in bed, under the charge of a trained nurse, for three months. During this time, in addition to tonic treatment, including general massage, hydrotherapy, etc., many of the well-known drugs that have been strongly advocated for this condition were perseveringly administered.

After two weeks of rest, atropine was injected into the affected muscles. I began with $\frac{1}{200}$ of a grain, which produced flushing of the face, dryness of the throat, and an increased pulse rate lasting over an hour. The daily dose was gradually increased to $\frac{1}{80}$ of a grain, which produced such alarming symptoms of atropine poisoning that its use was discontinued. For two or three days thereafter the spasm became very much worse. The notes taken by me at the bedside are thus recorded:

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*Read before the New York Neurological Society November 6, 1900.

January 6, 1896.—"Frequent and severe tonic and clonic spasm affecting the right sternomastoid and the right trapezius muscles, forcibly rotating the head to the left, associated now and then with tonic and clonic spasm of the other neck muscles drawing the head alternately backward in extreme extension and forward in extreme flexion, and occasionally involving the shoulder and spinal muscles, thus raising the thorax from the bed. The rotation of the head to the left by the tonic spasm is very distressing, continuing from twenty to thirty seconds, and cannot be overcome by force. These convulsive attacks, which last about twenty minutes, are of a very violent type, being accompanied by apparent suspension of respiration, and followed by a full inspiration, a short forced expiration, general muscular relaxation, and a condition of exhaustion. The muscles of the face and extremities are not involved. The face is flushed, the eyelids closed as in sleep, and both corneæ deviated to the left, but sensitive to touch. No loss of consciousness. Pulse rate as usual."

This condition continued from 7.30 A. M., on her awaking (with a few moments' intermission), until 3 P. M., when one-quarter of a grain of morphine was given subcutaneously. Sleep did not follow, but there was some diminution in the severity of the spasm, and there was a decrease in the frequency of the paroxysms. Sixty grains of bromide of potassium were given during the afternoon and evening.

January 7th.—"She passed a comfortable night. The spasms are of the same character, but somewhat diminished in frequency and severity."

The paroxysms gradually became milder and less frequent, and subsided in about two weeks, leaving her in the same condition as before. The use of the bromide, which had been given daily, was then discontinued. Subsequently, gelsemium, conium, blisters, the cautery, etc., were all faithfully employed, but failed to produce any perceptible improvement.

During the first four weeks of observation, the urine was always of high specific gravity, ranging from 1.025 to 1.040, and contained an excess of urates and uric acid. The daily quantity varied from 19 to 34 ounces, the average being 32 ounces.

At the end of four months there was considerable improvement in her general condition. She had gained 10¾ pounds, but the muscular spasm was the same as at the beginning of treatment. The average daily quantity of urine had increased to about 45 ounces, the acidity had diminished, and the specific gravity was from 1.016 to 1.020.

On the 5th of April the late Dr. E. C. Seguin, who saw her with me in consultation, advised the continuance of rest and tonic treatment. This plan was carried out five weeks longer, when she rebelled against such "heroic measures." She then returned to her home for further treatment. This included rest in bed for several hours during the day, suitable hydriatic measures followed by general massage, massage to the neck muscles with passive movements of the head and neck, and the daily practice of systematic voluntary exercises with and without resistance.

In June she went to Summit, N. J., for the summer, continuing under the care of a nurse and an expert masseuse, where I visited her once a week.

July 2d.—"No rotary spasm in the last six weeks. This has been replaced, however, by a persistent tonic spasm affecting the right trapezius, drawing the head downward to the right shoulder. There has also been an occasional clonic spasm of the same muscle. A brace was applied to the head and shoulders to overcome the spasm, and exhaustive massage of the contracted muscles practised morning and evening, in addition to the regular exercises, and she was kept in the open air the greater part of the day."

August 1st.—"During the last four weeks the brace has been worn most of the time, but removed at night. In about a week the tonic spasm of the trapezius was much diminished, and a week later the drawing of the head downward to the shoulder had entirely subsided. There have been no clonic movements of any kind in nearly six weeks. They have recently been replaced by a strong tonic contraction of the posterior neck muscles forcibly extending the head and throwing the chin forward. The brace, having served its purpose, was soon discarded. The sternomastoid muscle has resumed its normal size. Her general health is much improved. The pulse averages 76. She is able to walk three miles without fatigue. Massage, etc., continued."

During September, the muscles often remained completely relaxed for several hours. When she returned to her home, in October, although her general health had materially improved, some tonic spasm in the postcervical muscles still remained. Despite my earnest protest, she concluded to dispense with the further services of the masseuse, as she felt satisfied that she was nearly cured. However, shortly afterward, as the tonic spasm continued from time to time, she was examined, at her husband's request, in consultation by the late Dr. Lewis A. Sayre, who suggested occasional etherization and the persistent continuation of the previous treatment. She was etherized three times a week for two weeks. During the anæsthesia there was complete muscular relaxation, of course, but, on her returning to consciousness, the condition remained unchanged.

Subsequently, the tonic spasm became limited to the right trapezius, and the patient discontinued all systematic treatment, saying that she was satisfied to remain in her present condition.

I have seen her at long intervals during the last few years, and also three months ago. Although there has never been any return of the clonic spasm, there is still an evident deformity resulting from a persistent (but occasionally remittent) tonic spasm of the upper segment of the right trapezius.

In reviewing the report of this case, several interesting features present themselves. The previous history of the patient, the severe paroxysms occurring during the early period of observation, the variability in the character of the muscular spasm, and the persistence of tonic spasm confined to the upper segment of the trapezius muscle, are all more or less significant of an hysterical element, although none of the usual stigmata of hysteria were demonstrable. The rheumatic factor is also of importance. During the first three months the urine was examined daily. It was frequently noted that whenever the specific gravity ranged between 1.030 and 1.034 there occurred a corresponding increase in the activity of the spasmodic movements, which was rather suggestive of cell-irritation due to autotoxæmia. The high specific gravity was associated with diminished excretion of urine and an excess of urates. No trace of sugar or indican was ever found. Further systematic treatment would probably have resulted in the complete disappearance of the remaining tonic spasm.

CASE II.—Mrs. C. D., of Brooklyn, twenty-four years of age and married, consulted me on October 2, 1897, when the following history was obtained: She has been married two years. Has never been pregnant. Since girlhood, she has been subject to attacks of migraine. The pain, which is located in the forehead and temples, often lasts all day, and is usually accompanied by transient obscuration of central vision, hemianopsia, and vertigo. Neither nausea nor vomiting is experienced during the attack. In April of this year she first noticed frequent lateral oscillation of the head, occurring every few minutes. Soon after, she became suddenly frightened and the head began to shake more violently than before. This so-called shaking is further described as a gradual and jerky turning of the head toward the left side. The rotation of the head has been almost constant during the last six months, and is rapidly becoming worse. The movements cease during sleep, and are lessened while she is lying down. She attributes her present trouble to ill-health resulting from nursing her husband through a three months' illness. She is easily fatigued. Restless sleep. No cardiac palpitation. Menstruation irregular. No dysmenorrhœa, but occasional leucorrhœa. Her bowels act regularly without medicine. Appetite poor. No gastric disturbance. No history of trauma, alcoholism, or rheumatism. Family history unimportant. A surgical operation on the neck muscles has recently been advised by a Brooklyn surgeon.

The right sternomastoid and trapezius are affected by tonic and clonic spasm which produces frequent rotation of the head toward the left side.

The head is in a condition of almost continuous tremor as a result of her efforts to control the spasm. The right sternomastoid is hypertrophied, and there is also slight tonic spasm affecting the left splenius. Tenderness on pressure is present over the spinous processes of all the cervical vertebræ, and also over the right superior cervical ganglion.

She is apparently anæmic and neurasthenic. Pulse 96 and feeble. Heart's action normal. Tongue coated and slightly tremulous. There is also some tremor in the outstretched hands. Pupils and eye-grounds normal. No discoverable stigmata of hysteria. The result of further examination is negative. Urine, acid; specific gravity, 1.015. Albumin, sugar, and indican are absent, and there is no microscopical evidence of bladder or renal disease.

She came to the city and was kept at rest in bed for nearly two months. During that time the usual rest-cure methods were adopted. Systematic massage and special exercises of the neck muscles were also practised. This was supplemented by the daily injection of atropine ($\frac{1}{60}$ of a grain) into the contracted muscles, which resulted in complete cessation of all spasmodic movements for about five hours.

The use of atropine was discontinued at the end of two weeks. By the middle of January she had gained in weight, her general condition was much improved, and the tremulousness of the head had subsided. The clonic spasm had entirely disappeared. There remained only a slight tonic spasm affecting the right sternomastoid and the left splenius. She was allowed to return to her home for further treatment. The massage and exercises were persistently continued, and she made an uninterrupted recovery at the end of six months, and has remained perfectly well ever since.

In a paper read before the New York Neurological Society in March, 1884, and published in the *Medical Record* for March 15th of the same year, I reported the history of a case of clonic torticollis successfully treated by the subcutaneous administration of the sulphate of atropine. Following is a brief synopsis of the report:

A woman, twenty-one years of age, unmarried, neurasthenic. Severe clonic spasm affecting the right sternomastoid and trapezius, jerking the head forcibly to the left and downward at the rate of about fifty times a minute. Duration, two months. The movements continued at night, and were accompanied by so much pain in the neck and occiput that sleep became impossible. The patient was a book-folder by occupation, and during her work was obliged to keep her head turned toward the left side, in order to compare the foldings with a gauge. The initial dose of atropine was one-eightieth of a grain, which was daily increased in amount until on the twentieth day she was receiving nearly one-sixth of a grain (the maximum dose), which was continued in the same quantity for four days, when recovery gradually took place. No decided improvement was manifested until the injection of nearly one-sixth of a grain.

From the close observation of this case, I felt confident, and so expressed myself at the time, that the recovery could be attributed to the effect of atropine.

Since then, I have used atropine in twelve cases of clonic wry-neck, including those just reported, but the patients were not under observation long enough to warrant any definite conclusions. I must say, however, that, while the atropine treatment may prove exceedingly beneficial, nay, even curative, in some cases, it is evidently unsatisfactory in many others, and should only be considered as an adjuvant to absolute rest and general management.

It is universally recognized that the prognosis in these cases is always unfavorable, unless suitable treatment is adopted early in the course of the disease. Recovery essentially depends on the duration of the trouble and the persistency in the treatment. In old-standing cases that have existed for several years, and have only received desultory treatment, or in those patients who have been unsuccessfully subjected to the customary routine methods of management, the prospect as to ultimate recovery is always very discouraging.

The principal therapeutic feature in every case should be the use of massage and the methodical education of the muscles and their coordinating centres, as practised in the two cases herein reported. My attention was first directed to this most important measure by an instructive paper on this subject by Dr. F. Coggeshall, of Boston, which appeared in the *Boston Medical and Surgical Journal* for February 27, 1896. He had treated fourteen patients. Ten were "completely cured," in three of whom the disease had existed in a severe form from two to four years.

All experienced neurologists agree that a surgical operation in these cases should only be undertaken after other means have been thoroughly tried. Yet I know of at least twenty patients who were told very early in the course of the affection that a surgical operation was their only hope. Such advice, unfortunately, is of too common occurrence. We are forced to admit that in well-established and long-standing cases, a repetition of the canonical methods of treatment usually proves unavailing. Yet, massage and exercises, as herein recommended, should be thoroughly and persistently carried out in conjunction with rest, etc., before surgical intervention is advised.

It is only in such cases that the operation of resection of the spinal accessory nerve or more extensive resection of the cervical nerves should be undertaken, and it is gratifying to state that several permanent cures have resulted from this radical procedure.*

It is almost impossible for these unfortunate patients of the poorer class to gain admission to the medical wards of our large hospitals, owing to the chronic character of their trouble and the necessity for prolonged treatment. Several of my dispensary patients, who suffered from a severe form of the affection, applied at our best-known institutions, and were promptly refused admission, unless they consented to enter the surgical ward and submit to an operation.

The most important point is to treat these patients (as soon as the disease is recognized) by prolonged rest in bed, massage, special exercises, etc. If this could be accomplished, fewer cases would advance to such a stage as to come within the legitimate field of surgery.

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THE PATHOLOGY, DIAGNOSIS, SPECIAL PROPHYLAXIS, AND TREATMENT OF TUBERCULOSIS OF THE MIDDLE EAR.†

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In the comparatively small space of the cavum tympani, rendered still less by the ossicles and numerous reduplications of the lining mucosa, the extension of tuberculosis to the antrum and adjacent cavities is facilitated to the highest extent. In the majority of cases the infective material is carried to the middle ear by way of the Eustachian tube. The resultant primary morbid changes are characterized by the development of the tubercles in the mucous membrane.

When the tubercles are limited in number and scattered, the intervening tissue is apparently normal, while, should they be confluent, the area between the cell aggregations is obliterated, or is composed of granulation tissue insufficiently supplied with nutrient vessels, and there develops an inflammatory fibrous hyperplasia of a low grade. Under these circumstances the mucosa is but slightly mamillated and presents the appearance of a compact, uniformly diseased surface. Primarily the tuberculous nodule, as seen on the promontory or in the immediate vicinity of the tubal opening, is red in color and slightly elevated above the surface. The mucous membrane is pale gray from leucocyte infiltration.

As the pathological changes enumerated are usually not productive of symptoms sufficient to attract the attention of the patient, the otologist rarely sees the infection in this stage, unless the tympanic membrane is also involved and there is a coincident myringitis. When this occurs, the drum-head still remaining intact, there develops the small millet-seed projections not differing from those of miliary tuberculosis in other organs. Kretchmann has found the membrane studded with miliary tubercles, which ulcerate early and produce the more or less characteristic sieve-like perforations seen in this disease. In three cases I have observed isolated tubercles break down, and but one or two perforations resulted, but more frequently, and especially when the disease is consecutive to pulmonary tuberculosis, caseation is rapid and the drum-head is destroyed in its entirety. When otorrhœa is first noticed by the patient the infected tissues have begun to break down, and yellowish, opaque areas of cheesy degeneration are seen scattered over the promontory.

Unlike simple granulation tissue, there is a constant tendency to retrogressive changes, and the newly formed tissue occupying the tympanic area shows no tendency in the majority of cases toward cicatrization, but the development ceases at the fibroblast stage, the nutrition, always feeble, is rendered more so, and degeneration accompanied by secondary infection with pus organisms is a constant feature. It should also be taken into consideration that ulceration of the mucous surfaces inevitably occurs from the breaking down and disintegration of the tuberculous mass, and then the base and edges of the ulcer are also carious. Invasion of adjacent tissues is highly probable, the infection spreading from the original area into the surrounding structures; at the same time the central focus disintegrates, as in a case reported by Haenel, in which tuberculous caries of the bone was followed by rupture of both labyrinthine windows. Illustrating the centrifugal extension of the limited tympanic infection is a case recorded by Piffl in which there were secondary growths extending from the middle ear into the cranial cavity. The mastoid cells were replaced by a mass of tuberculous tissue, the ossicles were destroyed, the anvil was lying loose in the granulation tissue, and the bulb of the jugular vein was thrombotic.

The membrana tympani may become studded with tubercles which later undergo caseation, or it may present localized areas of hyperæmia with a moderate degree of round-cell infiltration, most marked in the posterosuperior quadrant. Following this condition, which, however, may remain stationary for a considerable period, the regenerative power is lost, and the membrane rapidly melts

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*Richardson and Walton, *American Journal of the Medical Sciences*, January, 1895.

† Presented in a "symposium" on Tuberculosis at the seventeenth annual meeting of the New York State Medical Association, October 17, 1900.

away. Scheibe saw six cases in which this feature was well marked, the affection being characterized by extensive destruction of the tympanic membrane. Again, the drum may appear normal or but slightly clouded until late in the disease, in these cases the infection remaining for a long time localized at the promontory or near the tubal opening, or, as pointed out by Winkler, there may be an old perforation, due to a non-specific otorrhœa, through which the parts become infected by the tubercle bacilli.

The ossicles, especially the malleus and incus, are usually subjected to the brunt of the disease, and in my experience it is not infrequent to have them exfoliated in the later stages. But recently I saw a case of grave pulmonary phthisis in which the right tympanum was extensively involved and the patient found the entire ossicular chain adhering to a pledget of cotton which he had been using to remove the discharge. While the tuberculous inflammation of necessity involves the bony boundaries of the tympanic cavity, the ossicles become necrosed before this occurs and are occasionally found in the detritus. The stapes is not so frequently affected as the malleus and incus are, but in the later stages even the foot-plate of the stirrup may become disintegrated, thus opening an avenue of infection by which the inner ear may become involved.

Liaras reports a case in which the stapes was freed from the oval window, while Schutz in one case found the tympanum completely filled with small gray tubercles which had dislocated the ossicles, and the new growth had extended into the external canal. Instead of necrosis, as shown by Bezold, there may be hyperplasia of the foot-plate of the stapes, and the hearing is greatly impaired when this occurs.

When necrosis of the bony walls takes place, the promontory is usually the first point involved, and the process extends to other portions of the osseous tissue, tuberculous changes taking place in the facial nerve, and, as pointed out by Randall, the destruction may be so great as to involve the carotid artery and cause death by hæmorrhage, seven deaths having been reported from this cause. The necrosis upon the inner wall of the tympanum may readily be detected both by visual examination and with the probe, but in a class of cases to which Kretschmann has called attention it resembles to a marked degree a mass of fibrinous deposit, under which is denuded bone, usually surrounded by granulation tissue.

The diagnosis of aural tuberculosis is of serious import, as upon the early recognition of the disease will depend to a great extent the future issue of the case. It seems best to study this aspect of the subject under three headings: First, the recognition of aural tuberculosis in a subject without general evidences of the disease, but in whom for obvious causes the middle-ear affection is suspected to be of a tuberculous nature; secondly, the recognition in an individual suffering from pulmonary tuberculosis of involvement of the middle ear and, under this same heading, the diagnosis of the cause of an otorrhœa existing before the pulmonary affection developed. In the third class we have the differential diagnosis of a tuberculous otorrhœa from that occurring in conjunction with syphilis, lupus, diabetes, and new growths.

In the first class of patients referred to there is usually a slight watery discharge from one ear, which has existed for several months, appearing without the knowledge of the patient, and at no time has there been the slightest evidence of pain. Physical examination of the respiratory organs shows nothing suspicious; the patient may be of good physique, but usually is somewhat under weight and anæmic, and, in addition, he will give a history of pulmonary tuberculosis in near or distant blood relatives. The hearing is but slightly impaired and, on examination, the membrana tympani will present several small perforations, round in contour, with the edges thick and everted, and, instead of the congested appearance seen in ordinary otorrhœa, the drum-membrane will be of a blue-white color, presenting somewhat the appearance of ground glass, with the addition of an œdematous element. Under these circumstances, the insidious development of the discharge and the absence of pain, strong emphasis being placed upon this point by Oaks, who says that, although the otorrhœa is of recent date, if there is no pain or other manifest symptom except the discharge, a tuberculous ætiology is suggested, should immediately direct the attention of the otologist to the nature of the case. The importance of a prompt diagnosis in the incipiency of the disease cannot be emphasized too strongly, as these are the cases that present the most favorable outlook as regards treatment.

Of the greatest importance, and the crucial factor in the diagnosis of tuberculosis of the middle ear, is the recognition of the tubercle bacilli in the aural discharge. When the organisms are numerous, they can readily be recognized by any of the usual stains, but occasionally it is necessary to use what Milligan calls the best and most reliable means of establishing the diagnosis, properly conducted inoculation experiments. As the bacilli are found more frequently in the residual pus in the tympanum than in the canal, it is essential that the material used for examination be obtained from the deepest part of the chamber. A negative diagnosis cannot be made by the absence of organisms in a single examination. Frequently the material obtained from the ear must be repeatedly examined before the bacillus is found; especially is this necessary in the later stages, when there is profuse purulent discharge due to secondary infection from streptococci.

In the patient with pulmonary or other forms of tuberculosis, and with subsequent otorrhœa, the diagnosis is greatly facilitated, and no serious difficulty need be apprehended in estimating the true nature of the case. A difficulty, however, arises in cases of purulent otorrhœa with profuse discharge and extensive tissue disintegration, in which general tuberculosis develops at a later stage. It is ofttimes difficult to detect the bacilli, as the usual pus organisms present prevent the recognition of the tuberculous element. Under such conditions the characteristic local features are absent and pain may be present, as in a case reported by Collins, in which during the course of acute miliary tuberculosis the patient presented the ordinary symptoms of an acute otitis media. The diagnosis in these cases is made by the general condition of the patient, the presence of laryngeal or nasopharyngeal tuberculosis and various local manifestations suggestive of this affection, such as the rapid development of facial paralysis, the intolerance of the middle ear to local applications, and, as suggested by Milligan, the enlargement of the periotic ganglia.

The differential diagnosis from syphilis can be determined by the history of the case, the presence or absence of syphilitic stigmata elsewhere, the absence of the tubercle bacilli in the aural discharge, and the rapid disintegration and ulceration, not only of the middle ear, but also of the external canal in the specific affection. When otorrhœa develops during the course of both syphilis and tuberculosis, as in a case reported by Bonnier, that of a tuberculous and syphilitic patient, it may be extremely difficult to ascertain the real nature of the aural lesion. Careful bacteriological investigation will, however, clear up the diagnosis. Lupus involving the middle ear is rare, and, as it occurs only in conjunction with the manifestations of the disease upon the auricle and face, it will require no further mention here. Tuberculous otorrhœa must sometimes be distinguished from that occurring during the course of diabetes. I have seen one case of this nature in which the urine contained a large amount of sugar, and there was also evidence of beginning pulmonary tuberculosis; the otorrhœa, however, in this instance was not tuberculous in nature. When granulation tissue is abundant and extends into the auditory canal in tuberculous otorrhœa, the question will occasionally have to be determined as to its relation to other new formations. Visual examination will be of little value, and it is necessary to remove some of the tissue for microscopical examination, and the presence or absence of the tubercle bacilli must also be determined.

As the natural history of aural tuberculosis is such that extensive alterations may and usually do take place before attention is called to it, the usual prophylactic measures adapted to the prevention of the affection in other parts are rarely applicable. When a tuberculous individual, however, has had at any time acute or chronic suppurative otitis media, it is always advisable to exercise special prophylactic measures directed to the avoidance of aural infection, and especially so when the nasopharynx or tonsils are involved. Even in laryngeal tuberculosis without aural disease great care should be taken to prevent infection through the Eustachian tube.

It is unnecessary here to more than mention the general prophylactic measures, such as change of climate, environment, nourishing food, etc. Of special prophylactic importance in this connection is attention to any abnormities or morbid changes in the nose or throat, whether tuberculous or otherwise, and prompt attention should be given to attacks of myringitis or acute otitis media. The nose and throat should be carefully cleansed with an alkaline antiseptic solution, and all procedures tending toward forcing infected mucus through the tubes, as by the Valsalvian method of self-inflation, must be expressly prohibited. By observing these rules much can be done to prevent infection of the middle ear on the part of the patient, and, following out the same indications, it should be the duty of the physician to absolutely avoid under all circumstances the use of the Politzer air douche. I firmly believe that the middle ear is infected in this manner more often than is generally thought, by the endeavors of the physician to relieve an intercurrent simple salpingitis in a tuberculous individual.

As I have emphasized in a previous article, the treatment of aural tuberculosis is essentially that of the treatment of tuberculous disease elsewhere. The signal note of success, if success is to be had at all, is in the use of such general constitutional remedies as seem best suited to the individual conditions. The hypophosphites, strychnine, creosote, and its congeners are indicative of the general remedies to be used. Nourishing food and change of climate and environment are just as necessary in aural tuberculosis as in the pulmonary form. Buck reports a case of early tuberculosis in which local treatment was not used at all, but the disease was arrested by sending the patient for a long stay in the Adirondack Mountains. Tuberculin has been used by Lucae, Bezold, and others, but, as in other forms of tuberculosis, no appreciable benefit seemed to be derived from its use, and in some cases there appeared to be considerable harm attending its administration.

Locally, the treatment may be considered under two headings, surgical and medicinal, and the choice will depend upon the extent of the aural involvement, the presence or absence of tuberculosis elsewhere, and the general physical condition of the patient. Usually surgical measures are contraindicated except in those very few cases in which there is no ascertainable tuberculous focus elsewhere and in which the area of aural infection is limited. When the condition of the patient is such that an operation is justifiable, it is essential that every portion of diseased tissue be removed and a free open wound be allowed to remain. Even if the patient is in fair condition physically, it is of great value to place him upon general constitutional remedies and a nourishing diet for several weeks before recourse is had to operative measures, much better results being obtained in this manner than when the diseased tissue is immediately removed without special constitutional preparation.

The local treatment may be summed up in the axiom, keep the parts clean and meet indications as they arise. The middle ear should be thoroughly cleansed with hydrogen peroxide, all pus and débris removed, and granulation tissue snared away or kept down by chromic acid. A non-irritating antiseptic powder may then be lightly dusted over the parts, or, what is still better and has given the best results in my hands, has been the local application of a thin film of iodoform and the use of iodoform-gauze packing extending well into the middle ear. Free drainage is favored by this method and, if the parts are kept thoroughly clean, quite favorable results are obtained. Buck douches the ear with tepid water and then applies a non-irritating antiseptic powder.

Following the successful results obtained from the use of lactic acid in laryngeal tuberculosis, it may be used here in the same strength and manner, preliminary cocainization, however, being necessary before any such applications are made. Any of the remedies used in non-tuberculous otorrhœa may prove of service, such as chloride of zinc, balsam of Peru, creosote in alcohol and glycerin, and absolute alcohol and carbolic acid, but it should always be kept in mind that, whatever form of local treatment is adopted, general constitutional measures are absolutely imperative.

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706 Madison Avenue.

Therapeutical Notes.

For Chronic Nephritis.—According to the *Gazette hebdomadaire de médecine et de chirurgie* for August 16th, M. Lemoine recommends the following:

℞	Benzoate of lithium	7½ grains;
	Betol	3¾ "
	Sodium bicarbonate	3 "
M.		

For one wafer. Two or three wafers may be taken daily between meals.

When the patient presents an intermittent diminution of urine, which is dark-colored and may even contain blood, M. Lemoine has recourse to tannin, which he prefers to gallic acid, and which he prescribes as follows:

℞	Tannin, Powdered cinchona,	of each 7½ grains.
M.		

For one wafer. Two wafers daily at meal times.

If the patient cannot swallow the wafers, tannin may be given in form of a syrup, thus:

℞	Tannin	37½ grains;
	Glycerin	450 "
	Syrup of bitter orange peel	1,800 "
M.		

From four to six tablespoonfuls daily, at the beginning of meals.

This treatment must be considered for some time, but it is well to suspend treatment for one week in four. Sometimes, M. Lemoine alternates alkaline medication with tannin, administering the wafers of benzoate of lithium for a fortnight, and the tannin during the subsequent two weeks.

For Chorioiditis.—The *Gazette hebdomadaire de médecine et de chirurgie* for August 16th ascribes the following to Galezowski:

℞	Cyanide of mercury	4½ grains;
	Neutral hydrochloride of cocaine	3¾ "
	Water	8½ ounces;
	Cherry laurel water	6 drachms.
M.		

For external use only.

This solution, says the *Gazette,* may be used with real advantage in hot eye fomentations, which may be repeated several times a day, against the progressive atrophic chorioiditis of myopia, and disseminated chorioid atrophy in the gouty. It may also be employed in subconjunctival injections in certain grave cases of exudative chorioiditis.

Antidiphtheritic Serum in the Treatment of Phlegmons.—Monti, of Pavia (cited in the *Deutsche Aerzte-Zeitung* for October 1st), recommends this method of treatment most warmly. So long as the process is in the stage of simple inflammatory infiltration, according to his observations, the fever subsides in from twelve to fourteen hours after the injection, the swelling, pain, and general feeling of illness abate, and recovery takes place in about ten days. In cases in which suppuration and gangrene have begun, he injects the serum and makes large incisions, and even in such cases there is a fall of temperature within a relatively short time, the wounds clear up, and the general condition improves. Among thirty-one cases, for the most part very severe ones, he has not seen a single death, whereas previously the mortality from gangrenous phlegmons in his hospital had been from forty-five to eighty per cent.

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THE THIRD PAN-AMERICAN MEDICAL CONGRESS.

ORDINARILY we should not think it necessary to say anything explanatory of the nature of this congress, but we have been informed that some members of the profession are somewhat uncertain as to what the meeting really is to be, and perhaps some of our readers have omitted to read what we have said about it in previous issues. We may say now, therefore, that it is the third of a series of reunions of the physicians of all the countries of North, South, and Central America and of the neighboring islands. The first meeting was held in Washington in 1893, the second occurred in the City of Mexico in 1896, and the approaching meeting, which by the triennial schedule was to have taken place in Caracas last year, is to be held in Havana, in pursuance of a postponement that was unavoidable and a change of place that has been considered judicious. The substitution of Havana for Caracas will undoubtedly result in a largely increased attendance from the United States, for recent events have made Cuban affairs of more than ordinary interest to our people, and great numbers of the physicians of Central and South America have already, we learn, expressed their intention of attending, and many of them have sent the titles of papers that they will read. The meeting will be opened on December 26th, and will be continued through the 27th, 28th, and 29th.

All regular medical societies are empowered to send as delegates as many of their members as they may think proper, and any reputable physician from this or any other American country may make himself a member on reaching Havana by the simple process of registration, etc. If he wishes to read a paper, he should send the title of it either to the United States secretary of the section to which the paper is appropriate or to the general secretary, Dr. T. V. Coronado, Prado, 105, Havana, Cuba, who will transmit it to the president or to the Cuban secretary of the section. A list of the sections and of their secretaries for the United States will be found elsewhere in this issue. Besides the resident secretaries, the presidents of the sections are Cuban physicians. A foreign secretary is appointed for each country that takes part in the congress, and each country is entitled to an honorary vice-president of the congress. The vice-president for the United States is Dr. Abraham Jacobi, of New York. It is expected that the Cuban secretary of each section will arrange the programme for that section. We are assured that our Cuban brethren have provided bountifully, not only for the scientific work of the congress, but also for the entertainment of the members and those of their families who go with them. We do not doubt that the congress will be in every way creditable to the medical profession of Cuba and of great value to that of the whole New World—for that matter, indeed, to the profession throughout the whole world.

THE MANAGEMENT OF NEW YORK'S PUBLIC HOSPITALS.

THE committee which had been charged with the preparation of a draft of a revision of the charter of the city of New York has proceeded so far in its task as to have prepared a report. This report discloses the fact that the committee favors making a radical change in regard to the management of what may be termed the emergency group of hospitals, embracing Bellevue, the Gouverneur, the Harlem, the Fordham, and the Emergency hospitals. The committee proposes the removal of these hospitals from under the direction of the commissioner of charities and their being placed in charge of a commission composed of seven officials, none of whom are to receive a salary.

So radical a departure as this from existing conditions is calculated to arouse considerable attention and discussion in the medical profession. We have no knowledge as to whence the suggestion for the proposed change came, and we do not know that any explanation has yet been put forth as to the reasons for the proposed change, save a desire to remove these hospitals from the sphere of "practical politics." It may be possible that these hospitals suffer from the exercise of "practical politics," but if they do, the fact has not become generally known.

Curiously enough, the revision committee has proposed changes which will result in a concentration of power by doing away with the present three-headed charities commission and substituting for this a single commissioner in whom would be vested the entire control of the department of charities, and upon whom the sole responsibility of the proper conduct of this department would rest. This change is in line with the general trend of the changes which have been made in the method of conducting the affairs of the city during the past twenty years. Experience has shown that in the conduct of municipal affairs divided responsibility means diminished effectiveness. This fact was recognized in the present charter of the city of New York, and was the cause of its investing the mayor with greater authority than had before been exercised by that official. The department of charities was divorced in the new charter from that of correction, and, instead of the seven commissioners who formerly controlled the joint departments, the department of charities was placed under the control of three commissioners, each one of whom, however, was assigned to a particular field of duty in which his will was practically paramount, and for the proper supervision of which he alone was responsible. The committee now proposes to vest all the power in a single commissioner of charities, whose responsibilities would be correspondingly increased. This proposition is one that will probably meet with the hearty approval of all who have given any serious attention to the problem of municipal government.

It is almost incomprehensible, then, that, having so clearly recognized the advantages accruing from the concentration of power and of responsibility by the recommendation to substitute a single commissioner for the three commissioners of charities as now provided for, the committee should proceed to take out of this department certain hospitals and place them in charge of an independent commission composed of seven members, all of whom are to serve without pay. If it is necessary to take these hospitals out of the department of charities, they should still be under a single-headed commission, for the same arguments which prove the wisdom of a concentration of authority in the department of charities would apply with equal force to the proposed department of hospitals.

Leaving aside, however, all questions of general policy and overlooking the incongruity involved in taking out a certain group of hospitals from the department while allowing others to remain in its charge, there seem to be a number of practical difficulties of administration involved which more than offset any apparent advantages which may be derived from the proposed change. As at present organized, the island group, including the hospitals on Blackwell's Island, Ward's Island, North Brother Island, Hart's Island, etc., is used for the overflow from the Bellevue group, all of which act to a certain extent as emergency hospitals. Any one at all familiar with hospital work will recognize the difficulties involved in having the emergency hospitals and the overflow hospitals under separate management, for in this case there will be constantly recurring questions as to the responsibility for transfers from the emergency, or hospital, department to the overflow, or charities, department, and any such controversy will be to the detriment of the particular patient involved. Furthermore, as things are now, all the drugs for the public hospitals of the boroughs of Manhattan and the Bronx are drawn through the drug department, which is administered in Bellevue Hospital; the general morgue for the same boroughs is on the grounds of Bellevue Hospital; the power and heat for the central offices of the department of charities are drawn from the power-house connected with Bellevue Hospital, and the general stables for the department are also on the grounds of Bellevue Hospital. If the proposed change is made, it will be necessary either to duplicate these portions of the establishment, which would entail great additional expense, or to conduct these departments under a dual control which would entail endless friction.

President Keller, of the board of charities, has recently intimated to a member of our staff that it was possible that the change had been proposed with a view to placing the hospitals more completely under the control of the teaching institutions. This he objects to on the ground that the hospitals are intended primarily for the relief of the sick, and only incidentally for educational purposes, and his attitude on the subject will, we believe, receive the approbation of many members of the medical profession. It is probable that the State Board of Charities will oppose any such division of the hospitals as is contemplated in the recommendations of the committee, and we may expect that several of the members of this body, if not all, will be active in their opposition to the proposed separation of the Bellevue and allied hospitals from the department of charities.

SOME PECULIARITIES OF THE ARAB RACE.

At a recent meeting of the Paris Society of Biology (*Presse médicale,* October 31st) M. Tostivint and M. Reutlinger presented the subjects of the immunity of the Arabs from typhoid fever, said to be well known, their proneness to pneumonia and to tuberculous disease, and the resistance of their serous membranes to infection.

It seems that army medical statistics show that diseases of the digestive canal are twice as frequent among European troops in Algeria and Tunis as among the native soldiers. This is true of diseases of all parts of the intestinal canal. Affections of the liver also are much less common among the Arabs than among Europeans. On the other hand, all pulmonary affections are more prevalent among the natives. These peculiarities, the authors think, are due, the one to immunization in childhood by drinking unwholesome water, and the other to the fact that the Arab's lungs, accustomed to the pure air of vast solitudes, are little fitted to struggle against the germs encountered in the air breathed by multitudes.

As to the resistance of the Arab's serous membranes to infection, the authors say it is observed in the case of all those membranes, but particularly of the peritonæum and the pleura. They are referring to traumatic infections. In consequence of this resisting power abdominal surgery among the Arabs is attended with the most favorable results. Rheumatism is exceptional, and metastasis of infectious diseases, particularly gonorrhœa, to the synovial membranes of the joints and to the other serous membranes is very rare. The only serous affections that are met with as frequently among the Arabs as among Europeans are those occasioned by Koch's bacillus or the pneumococcus; the Arabs' very decided susceptibility to these two micro-organisms contrasts sharply with the general resisting power of their serous membranes. This resisting power seems to have no connection with the mesodermic origin of the membranes; it seems to be a peculiarity of the primitive races. The peritonæum of the lower animals, it appears to be added in support of this theory, grows less and less resistant to infection the higher the creature is in the scale of living beings.

Race peculiarities in regard to morbid susceptibilities are always interesting subjects of study, and much may be learned from their investigation. It is to be hoped, however, that the theory of intestinal immunization by the habitual drinking of foul water in childhood will lead to no attempt to introduce the practice into preventive medicine, for, to our mind, it could result only in the survival of the toughest, like the "hardening" process.

FRAUDULENT PERSONATION OF A WELL-KNOWN PHYSICIAN.

WE cordially sympathize with Dr. W. Peyre Porcher, a well-known physician of Charleston, who appears to have suffered repeatedly at the hands of the fraudulent personator. He writes to us that Dr. A. R. Shands, of Washington, secretary of the committee on arrangements of the last Congress of American Physicians and Surgeons, has informed him that a man professing to be Dr. Porcher and to have attended the meeting in Washington last May, has been victimizing many Washington physicians by pretending to be in distress and borrowing money of them. He professes to have many friends in Richmond. He is described as being between sixty and seventy years old, about five feet and eight or ten inches in stature, of rather spare build, with a clean-shaven face and a heavy gray moustache. Dr. Porcher says he knows of other similar instances that occurred in former years. An individual mentioned by Dr. Porcher as having proved to be the culprit in one of those instances is probably the one who represented himself, to our certain knowledge, as Dr. Porcher's son, not as the doctor himself. One of the New York physicians to whom he applied for a loan was somewhat suspicious, and gave him a check in lieu of money, thinking he would not dare to endorse it and try to prove his identity at a bank, but he did do so, and succeeded in getting the money. In such cases, we think, it is well to telegraph an inquiry to the gentleman personated. Certainly, some effort should be made to foil these impostors.

"CHICAGO CHLOROFORM."

THE practice of injecting cocaine within the meninges of the spinal cord has already been designated by a remarkable number of names. Some of them are the following: "Spinal-canal cocainization," "cocaine analgesia from subarachnoid injection," "intraspinal cocainization," "subarachnoid injections of cocaine," "intradural injections of cocaine," "endomeningeal spinal cocainization," "medullary injections," "subarachnoid cocainization," the "subdural infiltration method," "subarachnoidean injections," "medullary narcosis," "Corning's method of medullary narcosis," the "spinal subarachnoid method," and (from what evolved we cannot imagine) "Chicago chloroform."

ARTIFICIAL BRANDY.

WE have often called attention to the difficulty of obtaining good French brandy, and have advised our readers to prescribe good whiskey instead. *Lyon médical* for November 4th, in an extract from the *Journal de médecine de Paris,* sheds some light upon the methods followed in the preparation of such "brandy." A so-called "*sauce*"—perhaps in English we should call it a "dose"—is added, along with glucose, to alcohol of the most inferior quality. The product is palatable and has the proper tint and bouquet; nevertheless, it is highly injurious.

News Items.

Society Meetings for the Coming Week:

Monday, *November 26th:* Medical Society of the County of New York; Lawrence, Massachusetts, Medical Club (private); Cambridge, Massachusetts, Society for Medical Improvement; Baltimore Medical Association.

Tuesday, *November 27th:* New York Dermatological Society (private); Metropolitan Medical Society, New York (private); Buffalo Academy of Medicine (Section in Obstetrics and Gynæcology); Richmond, Virginia, Academy of Medicine and Surgery.

Wednesday, *November 28th:* New York Academy of Medicine (Section in Laryngology and Rhinology); New York Pathological Society; New York Surgical Society; American Microscopical Society of the City of New York; Auburn, New York, City Medical Association; Medical Society of the County of Tompkins, New York (semi-annual); Berkshire, Massachusetts, District Medical Society (Pittsfield); Philadelphia County Medical Society.

Saturday, *December 1st:* Manhattan Medical and Surgical Society, New York (private); Miller's River, Massachusetts, Medical Society.

Infectious Diseases in New York.—We are indebted to the Sanitary Bureau of the Health Department for the following statement of cases and deaths reported for the two weeks ending November 17, 1900:

Diseases.	Week end'g Nov. 10		Week end'g Nov. 17	
	Cases.	Deaths.	Cases.	Deaths.
Typhoid fever	90	27	86	17
Scarlet fever	93	4	91	1
Cerebro-spinal meningitis	0	6	0	5
Measles	45	0	53	3
Diphtheria	212	27	226	25
Small-pox	1	0	1	0
Tuberculosis	250	159	292	147
Varicella	15	0	12	0
Laryngeal diphtheria (croup)	11	7	16	14

Naval Intelligence.—*Official List of Changes in the Medical Corps of the United States Navy for the Week ending November 17, 1900:*

Alfred, A. R., Passed Assistant Surgeon. Detached from the *Castine* and ordered to the *Culgoa.*

Bell, W. L., Assistant Surgeon. Detached from duty at Guam and ordered to the *Celtic.*

Blakeman, R. S., Passed Assistant Surgeon. Detached from the *Pensacola* and ordered to the Naval Hospital, Mare Island, California, for treatment.

Butler, C. S., Assistant Surgeon. Ordered to the *Independence.*

Curl, H. C., Assistant Surgeon. Detached from the *Culgoa* and ordered to the *Castine.*

Davis, E., Assistant Surgeon. Detached from the Cavite Naval Station and ordered to the *Brutus.*

Garton, W. M., Assistant Surgeon. Detached from the *Indiana* and ordered home to await orders.

Johnson, M. K., Passed Assistant Surgeon. Detached from the *Celtic* and ordered to the *Brutus.*

McClurg, W. A., Surgeon. Ordered to additional duty on the *Yankee.*

White, C. H., Medical Director. Placed on the retired list of the Navy from November 19, 1900.

Wright, B. L., Assistant Surgeon. Detached from the Naval Hospital, Cavite, and ordered to the Naval Hospital, Yokohama, for treatment.

Marine-Hospital Service Health Reports.—The following cases of small-pox, yellow fever, cholera, and plague, were reported to the surgeon-general during the week ending November 17, 1900:

	Small-pox—United States.		
Colorado, total for State	Oct. 1-31	75 cases.	
Washington, D. C	Oct. 28—Nov. 3.	1 case.	
Des Moines, Iowa	Oct. 1-31	1 “	
Wichita, Kan	Nov. 3-10	11 cases.	
Kansas, total for State	Oct. 1-31	27 “	
Lexington, Ky	Oct. 28—Nov. 10.	4 “	
New Orleans, La	Oct. 28—Nov. 3.	2 “	
Taunton, Mass	Oct. 28—Nov. 3.	1 case.	
Detroit, Mich	Nov. 3-10	1 “	
Minneapolis, Minn	Oct. 28—Nov. 10.	6 cases.	
New York, N. Y	Nov. 3-10	1 case.	
Cincinnati, Ohio	Nov. 3-10	14 cases.	
Salt Lake City, Utah	Oct. 1-31	27 “	
	Oct. 28—Nov. 10.	20 “	
Seattle, Wash	Oct. 1-31	9 “	
Wheeling, W. Va	Nov. 3-10	1 case.	
	Small-pox—Foreign.		
Rio de Janeiro, Brazil	Sept. 8-16		33 deaths.
Cairo, Egypt	Oct. 7-14		1 death.
London, England	Oct. 20-27	1 “	
Calcutta, India	Sept. 22—Oct. 13.		24 deaths.
Madras, India	Oct. 6-12		1 death.
Moscow, Russia	Oct. 13-20	3 cases.	
Odessa, Russia	Oct. 22-27	1 case.	2 deaths.
Edinburgh, Scotland	Oct. 20-27	1 “	
Glasgow, Scotland	Oct. 26—Nov. 2.	26 cases.	2 “
	Yellow Fever—United States.		
Natchez, Miss	About Oct. 15	12 “	7 “
	Yellow Fever—Foreign.		
Rio de Janeiro, Brazil	Sept. 8-16		2 “
Havana, Cuba	Oct. 26—Nov. 3.		13 “
Puerto Plata, Dominican Republic	Oct. 6—Nov. 3	5 “	
Tampico, Mexico	Oct. 28—Nov. 4.	12 “	4 “
Vera Cruz, Mexico	Oct. 26—Nov. 3.	11 “	12 “
	Cholera.		
Bombay, India	Oct. 8-16		17 “
Calcutta, India	Sept. 22—Oct. 13.		461 “
Karachi, India	Oct. 7-14	1 case.	1 death.
Madras, India	Oct. 6-12		21 deaths.
	Plague—Foreign.		
Alexandria, Egypt	Oct. 1-14	1 “	
London, England	Oct. 30	1 case on vessel arriving from the Philippines.	
Bremen, Germany	Nov. 6	1 death; sailor from South America.	
Bombay, India	Oct. 8-16		85 deaths.
Calcutta, India	Sept. 29—Oct. 13.		197 “

Marine-Hospital Service.—*Official List of the Changes of Station and Duties of Commissioned and Non-Commissioned Officers of the United States Marine-Hospital Service for the Seven Days ending November 15, 1900:*

Carter, H. R., Surgeon. Granted leave of absence for fifteen days from November 16th on account of sickness.

Greene, J. B., Passed Assistant Surgeon. To proceed to Bremen, Germany, for special temporary duty.

Mason, M. R., Hospital Steward. To proceed to San Francisco and report to the medical officer in command for duty and assignment to quarters.

Moncure, J. A., Acting Assistant Surgeon. Granted leave of absence for thirty days from December 15th.

Ryder, L. W., Hospital Steward. Relieved from duty in the Hygienic Laboratory, and directed to report to the medical officer in command at Washington for duty.

Schlaar, W. F., Hospital Steward. To report to the acting director of the Hygienic Laboratory for duty.

Scott, E. B., Hospital Steward. Granted one day's extension of leave of absence.

Stoner, J. B., Passed Assistant Surgeon. To report at Washington for special temporary duty.

Board Convened.

Board convened to meet at Washington on Tuesday, November 13, 1900, for the examination of Assistant Surgeon L. E. Cofer to determine his fitness for promotion to the grade of passed assistant surgeon. Detail for the board: Surgeon Preston H. Bailhache, chairman; Surgeon G. T. Vaughan and Passed Assistant Surgeon H. D. Geddings, recorder.

The Pan-American Medical Congress.—This congress, which will be held in Havana, Cuba, from December 26th to 29th inclusive, is open to any practising physician in good standing who resides in either North, Central, or South America. All medical societies in the countries named are invited to send delegates to the congress. Most elaborate preparations are being made for the reception and entertainment of the visitors by the physicians and the civil and military authorities of the city of Havana. All who propose to present papers should either notify the secretary of the section in the United States in which the paper should be presented, or should send the full title of the paper to the general secretary in Havana, Cuba. The secretaries for the different sections for this country are:

Medicine, Dr. J. Daland, 317 South 18th street, Philadelphia, Pa.; Surgery, Dr. W. P. Nicholson, Prudential Building, Atlanta, Ga.; Gynæcology and Abdominal Surgery, Dr. H. P. Newman, 103 State street, Chicago; Obstetrics, Dr. E. Gustavus Zinke, 13 Garfield place, Cincinnati, O.; Therapeutics, Dr. Hobart A. Hare, 222 South 15th street, Philadelphia, Pa.; Anatomy, Dr. Arthur D. Bevan, 100 State street, Chicago, Ill.; Orthopædic Surgery, Dr. John Ridlon, 103 State street, Chicago, Ill.; Railway Surgery, Dr. Duncan Eave, 700 Church street, Nashville, Tenn.; Pædiatrics, Dr. I. N. Love, The Iroquois, 49 West 44th street, New York City; Mental and Nervous Diseases, Dr. C. P. Hughes, 3857 Olive street, St. Louis; Dental and Buccal Surgery, Dr. Eugene Talbot, 103 State street, Chicago; Ophthalmology, Dr. John E. Weeks, 46 East 57th street, New York City; Laryngology and Rhinology, Dr. H. S. Makuen, 1419 Walnut street, Philadelphia, Pa.; Otology, Dr. J. T. McKernon, 62 West 52d street, New York City; Physiology, Dr. A. P. Brubaker, 105 West 34th street, Philadelphia, Pa.; Pathology, Dr. Hunter McAlpin, 9 East 55th street, New York City; Dermatology and Syphilography, Dr. A. Ravogli, 5 Garfield place, Cincinnati; Medical Pedagogy, Dr. Otis K. Newell, 14 Central Park West, New York City; Medical Jurisprudence, Dr. H. A. West, 2827 Market street, Galveston, Tex.; General Hygiene and Demography, Dr. Alvah Doty, Health Officer Port of New York Quarantine, Staten Island, N. Y.; Military Medicine and Hygiene, Major Jefferson Kean, U. S. Army, Quemados, Cuba; Marine Hygiene and Quarantine, Dr. R. M. Woodward, Surgeon, U. S. Marine-Hospital Service, Washington, D. C.

Dr. H. L. E. Johnson, 1042 L street, N. W., Washington, is the chairman of the committee on transportation, and he will furnish any information desired as to routes and rates. A note on this subject appears in this journal for November 17th, page 859. Those who propose going by rail to Tampa or Miami and thence by steamer can obtain all the necessary information from any agent of the Southern Railway. The Southern Railway will sell tickets from its territory south of the Potomac and Ohio and east of the Mississippi rivers, to Port Tampa, Fla., and return at one first-class fare plus $2, connecting with the Peninsular and Occidental Steamship Company, which has authorized a rate of $36.50 from Port Tampa and Miami to Havana, including meals and berths in both directions. This combination will make the rate to Havana, Cuba and return, including meals and berths on steamer in both directions, $70.05 from Washington, D. C. The Trunk Line Association has authorized excursion fares to Washington, added to the rates authorized by the Southern Railway. Delegates can leave Washington and intermediate points on the United States Fast Mail December 21, 1900, arrive at Port Tampa, Fla., the evening of December 22d, leaving there same evening on steamer, arriving at Havana, Cuba, on the morning of December 24th, on the following schedule: Leave New York, N. Y., 12.10 A. M., December 21st; Philadelphia, Pa., 7.20 A. M.; Baltimore, Md., 9.24 A. M.; Washington, D. C., 11.15 A. M.; arrive Jacksonville, Fla., 9.25 A. M., December 22d; Port Tampa, Fla., 10.30 P. M.; leave Port Tampa, Fla., 11 P. M.; arrive Havana, Cuba, 5 A. M., December 24th.

Extra sleepers will be operated on this train from New York to Port Tampa, via Pennsylvania Railroad, Southern Railway and Plant System, without change. This train is also equipped with first-class dining-car service.

Delegates desiring to go via Miami and Key West can use the above schedule to Jacksonville, there connecting with the Florida East Coast Railway to Miami, arriving at Miami at 10.30 P. M. Steamer will leave Miami at 11 P. M., December 21st, arrive at Key West, Fla., 1 P. M., December 22d; leave Key West at 9 P. M. same day and arrive at Havana at 5 A. M., December 23, 1900.

Physicians who intend going to the congress are requested to state in their letter to Dr. Coronado, Dr. Johnson, the secretary of the section representing them or the member of the auxiliary committee delegating them, the number who will accompany them, in order that they may know in Havana how many to provide for.

The New York Academy of Medicine.—At the last stated meeting, on Thursday evening, the 15th inst., Dr. James Ewing delivered the Wesley M. Carpenter lecture on the subject of Conjugation in the Asexual Cycle of the Malarial Parasite.

At the next meeting of the Section in Laryngology and Rhinology, on Wednesday evening, the 28th inst., the following papers will be read: Perforation of the Sæptum Narium, from a Study of Twenty-five Cases, with Regard to Ætiology and Pathological Significance, by Dr. Charles W. Richardson, of Washington; and The Pneumatic Sinuses of the Sphenoidal Wings, by Dr. Beaman Douglass. Dr. Herman Jarecky will present a case of rhinoscleroma and specimens and new instruments will be exhibited.

The Alumni Association of the College of Physicians and Surgeons.—On the evening of November 14th the committee appointed for this purpose by the Alumni Association of the College of Physicians and Surgeons, Medical Department of Columbia University, presented to Dr. George G. Wheelock, of New York, a testimonial in silver to commemorate the faithful and wise manner in which he had performed the duties of treasurer for the association during the long period of twenty-four years. The testimonial bore the inscription *"Fidelitatis causa."*

Philadelphia County Medical Society.—At the annual meeting of the Mutual Aid Association of the Philadelphia County Medical Society the following officers were elected for the ensuing year: President, Dr. John B. Roberts; vice-presidents, Dr. John B. Turner and Dr. John H. Musser; treasurer, Dr. Joseph S. Neff; secretary, Dr. Michael O'Hara, Jr.; directors, Dr. Benjamin Lee, Dr. George B. Dunmire, Dr. Charles A. Oliver, Dr. D. H. Allis, Dr. John H. Packard, Dr. John C. Da Costa, Dr. H. St. Clair Ash, Dr. De Forest Willard and Dr. Michael O'Hara. During the past year the association received notice that it was one of the residuary legatees of the estate of the late Dr. Albert Fricke, for many years chairman of its board of directors. The legacy will probably amount to several thousand dollars.

Bucks County (Pa.) Medical Society Elects Officers.—The annual meeting of the Bucks County Medical Society was held recently, at Doylestown, Pa., when the following officers were elected: President, Dr. George A. Parker, Southampton; first vice-president, Dr. John A. Crewitt, Newtown; second vice-president, Dr. George M. Grim, Ottsville; secretary and treasurer, Dr. A. F. Myers, Blooming Glen.

John D. Rockefeller's Gift to Cleveland College.—The Cleveland (Ohio) College of Physicians and Surgeons recently received a check for $10,000 from John D. Rockefeller to help to pay off the debt of $25,000 under which the college rests. The cost of the building was $70,000, of which $45,000 was raised before Mr. Rockefeller's attention was drawn to the matter. The dedication exercises will take place in the latter part of this month, and Governor Nash, of Ohio, will be one of the principal speakers. It is hoped that the remaining amount of the debt will be subscribed before the dedicatory exercises take place.

New York State Conference of Charities and Correction.—The first New York State Conference of Charities and Correction was held in the Senate Chamber at the capitol in Albany on November 20th, 21st and 22d. Among the interesting reports, papers and discussions were: Report of the Committee on the Institutional Care of Destitute Adults; discussion on A Model Institution, opened by Dr. E. J. Gilroy, medical superintendent of Erie County Hospital, Buffalo; the Report of the Committee on the Care of Defective, Dependent, Delinquent and Neglected Children; a paper, What Brought about the New York System of Caring for Dependent Children? Do these Reasons for the System Still Exist? by Homer Folks, secretary of the State Charities Aid Association, New York; a paper, What Causes are Leading to the Commitment and Surrender of Children as a Charge upon the Public, by Parents or Others? Can any of these Causes be Removed? by Dr. William O. Stillman, president of the Mohawk and Hudson River Humane Society, Albany; Report of the Committee on the Mentally Defective; a paper on The Duty of the State toward its Idiotic and Feeble-minded, by Dr. John F. Fitz-Gerald, superintendent of the Rome State Custodial Asylum, the discussion on which was opened by Hon. Charles McLouth, president of the board of managers of the State Custodial Asylum for Feeble-minded Women, Newark; a paper on the Results of Five Years' Experience with Cooperation between State Hospitals for the Insane—may it not be Profitably Extended to all Charitable Institutions? by Hon. Peter M. Wise, president of the State Commission in Lunacy, Albany; the Report of the Committee on the Treatment of the Criminal; a paper on The Prison System of the State of New York—How it can be Improved, by Hon. George McLaughlin, secretary of the State Commission of Prisons, Albany, and a paper on Houses of Refuge for Women, their Management, Purposes and Possibilities, by Mrs. C. R. Lowell, member of the board of managers, New York State Reformatory for Women, Bedford.

Horace Tracy Hanks, M. D., LL. D.—Dr. Hanks died at his home, in New York, on Sunday, November 18th, at the age of sixty-four. Although a native of Vermont and a graduate of the Albany Medical College, he spent his professional life in New York, where he won success and esteem as an obstetrician and gynæcologist.

Births, Marriages, and Deaths.

Married.

Bechtel—Feeny.—In Stapleton, N. Y., on Tuesday, November 20th, Mr. George Bechtel and Miss Elsa L. Feeny, daughter of Dr. John L. Feeny.

Chamberlin—Johnston.—In New York, on Wednesday, November 14th, Dr. Edwin Crosby Chamberlin and Mrs. Annabel M. Johnston.

Chancellor—Opie.—In Baltimore, on Saturday, November 3d, Mr. Arthur Bernard Chancellor and Miss Miriam Opie, daughter of Dr. Thomas Opie.

Downs—Wood.—In Germantown, Pennsylvania, on Wednesday, November 14th, Dr. Robert Norton Downs and Miss Ella Wood.

Hankinson—Bushnell.—In Brooklyn, N. Y., on Wednesday, November 14th, Dr. Marcus Conrow Hankinson and Miss Mary Adelaide Bushnell.

Hazlett—Ullom.—In Waynesburg, Pennsylvania, on Wednesday, October 24th, Dr. Jesse H. Hazlett and Miss Blanche Ullom, daughter of Dr. John T. Ullom.

Hickin—Throssell.—In Cleveland, on Thursday, November 9th, Dr. Frank Ward Hickin and Miss Gertrude May Throssell.

Musgrave—Porter.—In Boston, on Wednesday, November 14th, Dr. Percy Musgrave and Miss Edith Elise Porter, daughter of Dr. Charles B. Porter.

Remick—Crafts.—In Roxbury, Massachusetts, on Thursday, November 8th, Dr. Edwin Remick, of Tamworth, New Hampshire, and Miss Emily Alice Crafts.

Van Nort—Weed.—In Binghamton, N. Y., on Thursday, November 15th, Dr. Joseph S. Van Nort, of Middletown, N. Y., and Miss Lillian Weed.

Died.

Freeman.—In Lexington, Virginia, on Monday, November 12th, Dr. John Freeman, in the eighty-fourth year of his age.

Look.—In Allegheny, Pennsylvania, on Monday, November 12th, Dr. Henry A. Look, in the thirty-fifth year of his age.

Mosely.—In Alexandria, Louisiana, on Wednesday, November 14th, Dr. Benjamin T. Mosely, in the fift
second year of his age.

Pearsall.—In Saratoga, N. Y., on Tuesd
vember 20th, Dr. Samuel J. Pearsall, aged seve

Sparks.—In Philadelphia, on Saturda
17th, Dr. George W. Sparks, in the fifty-si
age.

STREATOR.—In Washington, Pennsylvania, on Thursday, November 15th, Dr. A. C. Streator, aged fifty-three years.

STUART.—In Santa Cruz, Luzon, Philippine Islands, on Tuesday, November 6th, Dr. Stanley N. Stuart, United States Volunteers.

TAYLOR.—In Cincinnati, on Saturday, November 10th, Dr. William F. Taylor, in the fifty-fifth year of his age.

Pith of Current Literature.

Boston Medical and Surgical Journal, November 15, 1900.

Public Health Laboratories. By Dr. Theobald Smith.—The author demonstrates clearly the necessity for such laboratories in the civil scheme. Among the problems which are to-day clamoring for attention he mentions all those that group themselves about the conception of immunity, the toxines, antitoxines, and bactericidal forces, the variations of pathogenic bacteria, and the interrelation of human and animal infections. There is ample opportunity for both bacteriologist and pathologist to exercise in this restricted field the highest degree of scientific acumen and sagacity in the application of physical, chemical, and biological methods to the study of disease.

Feeding in Typhoid Fever, with a Report of Cases. By Dr. George W. Moorehouse.—The appetite, and not the temperature, should be made the guide to the continuance and to the increase of the diet once begun. In the author's experience of 150 cases of typhoid, a number of patients went through an entire relapse without any decrease in the diet, "the appetite holding good during the entire time." A carefully graduated diet list, in use at the Lakeside Hospital, Cleveland, Ohio, is given. Milk diet, liquid diet, "soft typhoid diet," and convalescent diet, are the steps in the dietetic scale. The soft diet consists of ice cream, blanc mange, calf's-foot jelly, well cooked rice, gruels, crackers, eggs, etc. In no case in the 117 cases in which soft diet was given, in most of which the temperature had a considerable daily range, was there intestinal hæmorrhage as a sequel. In the order of preference, alcohol, strychnine, and strong coffee were the stimulants most frequently used. In patients with profound toxæmia, infusions of salt solution were used a few times, and it is the author's opinion that this procedure deserves a more thorough trial than it has yet received. The statistics accompanying this article are very encouraging.

The Cooperation of the Medical and Legal Professions. By Mr. George A. Sanderson.—Another and an interesting addition to the increasing number of papers favoring the formation of a "medical tribunal" which would save the time and increase the effectiveness of our courts. The author refers, in support, to the analogous custom of the courts of appointing masters, auditors, referees, or commissioners to assist them in reaching just conclusions in many civil cases. The question of how
uch a tribunal should be selected is a matter of detail.
while we are waiting for the millenium, he ex-
the hope that the time will soon come when both
and lawyer will know something of the whole
dical jurisprudence.

eglect; Report of a Case. By Dr. A. W.
se of a child, eighteen months old, the post-mortem gave slight indications of colitis, which raised a possible doubt as to whether the starvation was due to disease or to the withholding of proper food. Although starvation is rarely the means of homicide, it should always be remembered that the law does not require the absolute deprivation of food to be proved, but only proof that the necessary quantity and quality have not been furnished, provided this has been done with an evil intent. The evidence of organic disease does not prove that criminal starvation was not the cause of death.

Three Cases of Gunshot Wounds. By Passed Assistant Surgeon A. Farenholt, U. S. Navy.—One case in which a Mauser bullet went through the head, producing two holes identical in size, proves that the modern high-power bullet, passing through a bony cavity at very short range, may not cause a "ragged and enlarged opening" at the wound of exit. The so-called explosive effect was, however, apparent, the calvaria being extensively fractured.

Oxybutyric Acid and its Relation to Diabetic Coma. By Dr. Elliott P. Joslin.

Medical Record, November 17, 1900.

Differential Diagnosis in Diseases of the Gall-bladder and Ducts. By Dr. George Emerson Brewer.—No subject during the past decade, except appendicular inflammation, has received more attention from surgeons than diseases of the gall-bladder and ducts, and the object of this paper is to review briefly the facts which have been gathered relative to the symptomatology of these conditions. An excellent chart is given which presents, in a condensed form, most of the facts bearing upon the diagnosis in diseases of these organs. All the foremost authorities have been consulted in its preparation. It will be read with profit by those interested.

The Mortality from Diabetes Mellitus in the City of New York [Manhattan and The Bronx in 1889] Classified According to Month, Sex, and Age; also an Exposé as to Nationality, Duration of Residence in the United States, Occupation, Direct Causes of Death and Accompanying Diseases. By Dr. Heinrich Stern.—These statistics are very elaborate and will be a source of great joy to those who love "figgers." It would seem that the mortality among males was greater in the months of February, June, September, November, and December; while among females March, May, July, August, and October, were the months of greater mortality. In January and April the deaths were equally distributed. The greatest mortality occurred between the fifty-fifth and sixty-fifth years of life. The smallest between the tenth and fifteenth. The Germans suffered most, and the mortality was greatest among them. On the average, those who had died after the twenty-fifth year of life attained an age of sixty years. The working class were more frequently the victims. As to the direct cause of death: among a mortality of 202 from diabetes, death supervened sixty times by coma.

The Use of the Suprarenal Capsule in Diseases of the Lower Air Passages. A Preliminary Report. By Dr. Samuel Floersheim.—From a consideration of eight cases presented by the author, it appears that suprarenal powder is indicated in acute and chronic bronchitis, bronchiectasis, asthma, congestion and œdema of the lungs, hæmoptysis, and in some cases of pulmonary tuberculosis. It is best administered in the form of three-grain capsules, chewed without water, and swallowed. The action will become apparent in from two to fifteen minutes; in some cases it is permanent, but, in the majority, it is temporary, continuing from ten minutes to six hours.

Perfect Recovery Following Gangrene of the Scrotum and Penis. By Dr. Everard Hamilton Richardson.—This case is interesting because of the rarity of the result. The operative procedure was simple and the recovery was uneventful. No venereal taint formed an ætiological factor of the condition, and arteriosclerosis, atheroma, chronic nephritis, and diabetes mellitus were also eliminated. The initial cause was an abrasion of the skin above the pubes, which formed the portal of entrance for the pathogenic bacteria, the *Streptococcus erysipelatis*, from which the infection occurred. Later there occurred a second infection by the cocci of gangrene. Unfortunately, no bacteriological examinations were made.

A Case of Carbolic-acid Poisoning, with a Question Concerning Asphyxia. By Dr. H. E. Kendall.—The child, aged two years, after swallowing the poison, was apparently dying very rapidly from the systemic effects of the drug; however, as the symptoms disappeared quickly, they could not have been the result of systemic influences. The unconsciousness, dilated pupils, lividity, and heart failure, were the result of asphyxia, and the asphyxia was the result of the local action of the poison upon the structures about the tongue and epidermis.

Chylous Ascites. By Dr. J. W. Kales.—A typical case is given. No one even suggested chylous ascites until the fluid flowed through the trocar. No adequate cause was assigned, and no autopsy was performed.

Universal Ankylosis. By Dr. H. A. Elliott.—The patient, a man aged forty-four years, has been helpless and immovable for thirteen years. He suffers no pain. Some of his teeth have been removed to facilitate feeding, and his appetite is good. The heart's action is nearly normal, and the bowels and bladder act regularly. The skin is of good color. There is no muscular atrophy. Despite his helpless state, his wife gave birth to a good big healthy boy, one and one-half years ago. The author considers this latter fact the strangest of all and says, "perhaps some of the brethren may attempt to explain it."

Ptomaine Poisoning from Eating Cheese. By Dr. G. Leo Hagen Burger.—A chemical examination of the vomit confirmed the diagnosis. A quantity of substance given off was precipitated by an alkali, was soluble in a few drops of ether, and, on adding platinum chloride, gave a yellowish flocculent precipitate similar to that which is found in cheese undergoing the putrefying process.

Journal of the American Medical Association, November 17, 1900.

Medullary Anæsthesia in Gynæcology. By Dr. J. Riddle Goffe.—The author believes that the high temperature present in a large proportion of cases is due to a mild form of sepsis, the infection being carried in by the needle as it passes through the skin. If this explanation is correct, the method of Corning, consisting in passing a smaller needle through a trocar thrust into the skin, would tend to avoid, if it did not completely obviate, the possibility of infection. In all gynæcologic procedures, the method can be depended upon to produce anæsthesia; failure may be accounted for by (1) escape of the solution through the puncture; (2) too long bevel of the needle point; (3) the use of stale solutions; and (4) boiling the solution for the purpose of sterilization. Though in gynæcology there may be psychologic and æsthetic reasons why this method should not be used, in appropriate cases it offers a means of anæsthesia when general anæsthesia may be positively contraindicated. It will require a more extended experience to determine its availability in heart complications or kidney involvement.

Purpura Hæmorrhagica or Scorbutus? A Clinical Sketch. By Dr. Henry E. Tuley.—Purpura simplex, an occurrence of petechial and ecchymotic hæmorrhages in the skin, is never an idiopathic disease; purpura hæmorrhagica, the disease in which there are hæmorrhages into the skin, from the mucous membranes, under the periosteum, and into the serous cavities, is not an independent condition, but a modified form of scorbutus. It is due, perhaps, to a one-article diet, or to an ill-directed general diet, with a consequent development of a malnutrition, athrepsia or marasmus, as a forerunner to scorbutus.

Diabetes Mellitus in Children. A Report of Two Cases. By Dr. Leopold F. W. Haas.—This condition is more frequent in children than is generally supposed. Analysis of the urine is just as important and necessary in them as in adults. There is a possible ætiologic connection between peliosis rheumatica and diabetes.

Malarial Hæmoglobinuria. By Dr. William Britt Burns.—The parasitology of this condition is, without doubt, æstivo-autumnal, though others hold to a special parasite, and yet others seem to have observed a special bacillus in the blood and urine. Calomel, turpentine, eliminants, hot applications and supportives form the treatment.

Massage of the Eyeball. Present Status and Value, with the Consideration of what Diseases of the Eyeball may be Favorably Influenced by this Therapeutic Measure, and what are the Best Means of their Application. By Dr. Casey A. Wood.—The most satisfactory employment of massage in diseases of the eyeball will be found in chronic diseases of the eye-borders and substance; in almost all those subacute and chronic infections of the conjunctivæ that are commonly included in the title "conjunctivitis"; in the second stage of acute inflammation of the conjunctiva, and in most forms of ulcer of and deposit in the cornea. It may be employed for the temporary relief of glaucoma and in some forms of retinal embolism.

Use and Abuse of Potassium Iodide in Ophthalmic Practice. By Dr. Albert Rufus Baker.—This drug is contraindicated in most cases of postneuritic atrophy. It should be administered with caution to young children, and, generally speaking, albuminuria is a contraindication for large doses.

Electric Recording Perimeter. By Dr. William L. Sweet.

Glioma of the Retina. By Dr. G. A. Sulzer.—The author reports a case in a fourteen-months-old girl. The appearance of the right eye at birth was not natural, but the signs of disease were not marked until the fourth month, when a whitish reflex was visible through the pupil, and, later, the eye increased in size and became inflamed and painful. The usual symptoms were prominent upon examination. Glioma retinæ was diagnosticated, enucleation advised, and the operation and convalescence were without incident. Section of the tumor showed small spots of fatty degeneration and calcareous infiltration.

A Double Hook for Use in Advancement Operations. By Dr. C. F. Clark.

Aids in the Measurement of Refraction. By Dr. Edward Jackson.

Symptoms and Diagnosis of Hypertrophy of the Pharyngeal Tonsil. By Dr. George Morgenthau.

Iodine Used Hypodermically in the Treatment of Pulmonary Tuberculosis. By Dr. Alfred Careno Croftman.—Thus far, in the author's experience, twenty-seven cases have been treated with iodopin injections with good results. In animal experimentation, also, the author has found encouragement, and his views as to the future are optimistic. He makes a plea for the early recognition of the disease, and he comes forth as one of those who believe that pulmonary tuberculosis in its incipiency is one of the most easily curable of bacterial diseases.

Hernia or Diverticulum of the Chorion. By Dr. L. H. Laidley.

Tuberculosis of the Testicle, with Special Consideration of its Conservative Treatment. By Dr. John B. Murphy. (*Continued.*)

Bubonic Plague in San Francisco. Further Case Reports.

Medical News, November 17, 1900.

The Surgical Importance of Jaundice. By Dr. Archibald Maclaren.—The author's conclusions are: (1) That slight attacks of jaundice are of comparatively little surgical importance, and that the majority of surgical diseases of the biliary passages have no jaundice at all; (2) that persistent jaundice, especially if progressive, is usually a contraindication to surgical measures; (3) that while on the other hand intermittent, deep jaundice, especially if associated with chills and a rise in temperature, denotes the presence in the common duct of a stone that urgently demands removal.

The Hydriatric Treatment of Tuberculosis. By Dr. J. H. Kellogg (*continued*).—A tonic cold application should not be made when the surface is cold, when a chill impends, or when the temperature is high, and should not be made to the entire surface at the same instant until the patient has been trained by carefully graduated partial applications. The intensity, duration, and frequency, must be adapted to the patient's power of reaction, and to his ability for digestion and assimilation. For the reduction of a temperature, only mild measures are to be tolerated. The neutral bath, wet hand rub, and wet towel rub, at temperatures ranging from 80° to 92° F., are best suited to the purpose. The production of a chill should be avoided. Weight, general strength, appetite, and temperature, are matters which should always be carefully considered. An aggravation of any of the patient's symptoms should be followed by a modification of the treatment. The treatment should be continued long after the disappearance of the symptoms, and the author believes that the habitual use of the daily cold bath is one of the best safeguards for persons who have been cured of this disease. He also asserts that with this treatment would be saved nine-tenths of those "who are doomed to die under ordinary medical treatment."

Pernicious Anæmia. Report of a Case. By Dr. G. R. Trowbridge.—The case reported is a typical one. The author wishes to lay stress upon the point, that in cases of apparent chlorosis and primary anæmia in which is present the greenish tint of the skin, together with dyspnœa, palpitation, and general malaise, we should not depend on symptoms for the diagnosis, but should let the blood examination decide whether we are dealing with any one of these diseases, or with a case of pernicious anæmia.

Some Observations on Affections of the Gall-bladder. By Dr. Frank Le Moyne Hupp.—The author writes of the surgical aspect, and reports six cases in illustration. He agrees with the proposition of Mr. Mayo Robson, "that as soon as gall stones give serious trouble their removal by operation is the most rational method of treatment." This is a statement that can be safely supported, as it is only from the complications, which in many cases of cholelithiasis arise sooner or later, that any danger after operation need be apprehended.

Lancet, November 10, 1900.

The Urinary Pigments in their Pathological Aspects. By Dr. A. E. Garrod.—Under the collective name of "urinary pigments," a number of substances are grouped together which have nothing in common beyond their occurrence in the urine and their possession of color. Some of them (indigo) are merely colored products formed by the action of reagents on the urinary constituents, while others are excreted as colorless substances, which become converted into their colored derivatives when exposed to air and light. Such precursors are known as chromogens. Again, colored substances taken into the alimentary canal (santonin, methylene blue) may be excreted in the urine unchanged. In another group may be classed pigments which are normal constituents of the body, but which only find their way into the urine under pathological conditions (hæmoglobin and the bile pigments). Lastly, there is a group of coloring matters which may all be present in the urine of healthy persons. To these the name "urinary pigments" is especially applicable. They are urobilin, urochrome, hæmatoporphyrin, and uroerythrin.

Urobilin. This occurs only in very small amount in normal urine and wholly in the form of its colorless chromogen. It is readily recognized on direct spectroscopic examination by its single dark absorption band. Urobilin and its chromogen are widely distributed in the human body, and are present in the fæces in far larger amounts than in the urine. They are also present in bile from the gall bladder, in the blood and in serous effusions. The chief seat of their formation is undoubtedly the intestinal canal, and it is equally clear that the substance from which the intestinal urobilin is formed is the bile pigment. The change is probably brought about solely by bacterial action in the upper regions of the large intestine. Urobilin is not the only colored product formed from the bile pigment, the others going to color the fæces. The reaction of the intestinal contents plays an important part in the bacterial action. Acidity inhibits the formation of urobilin. This is well shown in typhoid fever, the greenish acid stools of which disease contain much biliverdin but no urobilin. Although bile pigment is abundantly available, the urobilin-forming process is suspended. In febrile disorders of every kind, temporary urobilinuria may be met with, the duration of which usually corresponds with that of the pyrexia. In diseases of the liver, it is usually persistent. Diseases attended by excessive hæmolysis, and the absorption of extravasated blood, show conspicuous urobilinuria (pernicious anæmia). Such urines have a warm orange color. Diminished excretion of urobilin may be due to diminished formation of bile pigment, as in chlorosis or acute yellow atrophy of the liver, or to suspension of urobilin formation as in typhoid fever.

Hæmatoporphyrin. This pigment is present in mere traces in normal urine and often in increased quantity in disease. It seldom has any material effect upon the color of the urine. In cases of hæmatoporphyrinuria due to sulphonal or other causes, the dark red tint of the urine is due to some unknown pigment. At least four characteristic groupings of absorption bands serve for the identification of hæmatoporphyrin under different conditions. It probably has hæmoglobin for its parent substance and is isomeric with bilirubin. But there is no necessary connection between excess of hæmatoporphyrin in the urine and excessive hæmolysis; it is usually absent in pernicious anæmia. The liver is probably the seat of formation of hæmatoporphyrin, and hepatic disorders play the chief part in its excessive production.

Urochrome, Uroerythrin. But little is known as to the modes of origin or the conditions controlling the excretion of these bodies. The formation of urochrome is quite independent of that of urobilin and it is probably a derivative of hæmoglobin. It has no characteristic spectrum, and there is no satisfactory method for its estimation. Uroerythrin is a potent coloring matter, far excelling urochrome and urobilin. Urine containing it is of a peculiar reddish-orange color, contrasting with that of the pink urate sediments, which is probably due to uroerythrin in combination. It is extremely unstable, being readily destroyed by light, alkalies, etc. It is probably produced in the liver, but does not belong to the group of hæmoglobin derivatives.

Empyema Following Lobar Pneumonia. By Dr. W. Hale White.—The author's article is based upon the tabulation of forty-five cases of empyema following lobar pneumonia. In 1,331 cases of pneumonia occurring in Guy's Hospital from 1883 to 1898, empyema developed in 45 cases, or 3.3 per cent. Pneumonia has increased of late years and has become a more severe disease; this is possibly due to the increased prevalence of influenza. The temperature is the most important aid in the diagnosis of empyema following pneumonia. There is a fall of temperature at the pneumonic crisis with a subsequent rise in about one third of all the cases. In many cases there is no apyrexial interval and pus may be present from quite early in the illness. In other cases pericarditis and malignant endocarditis may prevent the fall of the temperature to normal after the crisis of the pneumonia. The duration of the apyrexial interval is usually from one to five days. Five of the 45 cases had pericarditis, but only one pyopericardium. Malignant endocarditis was present in 3 cases. The presence of local tenderness is of great importance. A tender spot often exists over deep-seated small abscesses, and should be chosen for insertion of the exploring needle. Pus gives the well-known signs of fluid, but the detection of small empyemata is often most difficult. Œdema of the chest wall is said never to occur in pneumococcal empyemata; the pus from them is often light green and very thick. In no case did a single aspiration stop the pyrexia and formation of pus, even in the cases where the pneumococcus was the sole organism found. Of the 45 cases, 13 died, a mortality of 29 per cent. The extra danger to life in pneumonia, complicated by empyema, is not very great. The amount of pus varies greatly; 170 ounces were present in one case. It may collect with the greatest rapidity.

The Physiology and Pathology of Inheritance, or what do we Inherit from our Parents? By Dr. T. Oliver.—Summing up the subject, as to what is inherited from our parents, the author says that from a physiological point of view there is considerable evidence to show that mental, not less than physical, qualities are transmitted, that pathologically such a disease as hæmophilia is inherited, and that where there is a family history of phthisis and cancer there is, especially as regards phthisis, a greater liability to the disease than where a family shows no such record. Tuberculous disease is inherited, but only in the form of an enfeebled resistance on the part of the tissues.

Two Cases of Acute Hæmorrhagic Pancreatitis. By Dr. J. H. Bryant.—The author reports two cases of acute hæmorrhagic pancreatitis, occurring in men aged thirty-six and twenty-two years respectively. In both cases the disease was ushered in with an attack of acute abdominal pain, rapidly leading to collapse. Both cases underwent laparotomy, but succumbed within twenty-four hours of the operation. In the first case areas of fat necrosis were found throughout the peritoneal cavity, which contained a good deal of blood-stained fluid. No trace of any normal-looking pancreatic tissue was to be seen. The position of the pancreas was occupied by a chocolate-colored mass, three times as large as a normal pancreas, consisting of blood. Marked fat necrosis of the mediastinal and pericardial fat was observed. There was no peritonitis. In the second case there was general, acute peritonitis. The pancreas was much enlarged and adherent to the adjacent structures. There were many little infiltrations of blood into its parenchyma. The peritoneal cavity at the time of the operation contained a large collection of clear, bile-stained, serous, sterile fluid. No fat necrosis was found. The existence of fat necrosis outside of the peritoneal cavity, as occurring in the first case, is of great interest.

On the Influence of Fatigue on the Minute Structure of the Kidney and Liver. By Dr. G. Guerrini.—The author reports the results of his observations on dogs, which were subjected to fatigue by means of a treadmill apparatus, killed, and the tissues of the liver and kidney examined microscopically.

Kidney. The grosser modifications of structure are in the cells of the convoluted tubules and of the ascending part of the loop of Heule. The more fatigued the dog, the more profoundly altered are the cells. The protoplasm loses its usual aspect and becomes homogeneous and granular. The cellular body enlarges and the edge between the cells becomes indistinct. The borders of the cells surrounding the opening of the canals may fray out and break, and the cellular protoplasm show vacuoles and cracks, finally crumbling away into a fine detritus. Diseased cells may form a group in the midst of normal ones.

Liver. The minute modifications of structure of the liver cells are much less than are those of the kidney cells, but they are of the same character.

A Series of Eleven Operations for Perforated Gastric Ulcer. By Dr. G. H. Hume.—The author reports eleven cases of perforating gastric ulcer operated on by him, with six recoveries. In only one case was there any doubt before the operation of the occurrence of perforation. The past history of stomach trouble, the sudden and severe pain with collapse, the epigastric tenderness and rigidity, with soon a slight rise of temperature, are indications enough to justify exploration. Continuous vomiting is of evil import. In the cases that resulted in recovery, the interval between rupture and operation was from six to twenty-eight hours. In the instance where twenty-eight hours had elapsed, the stomach was absolutely empty at the time of rupture. In only one instance was the perforating ulcer found on the posterior wall of the stomach. In all cases the opening was closed by a double set of Lembert stitches, the edges not being excised. The treatment of the peritoneal cavity varied: sponging without flushing or drainage should be followed where there is only limited and local extravasation. But in one case where the abdomen contained much gummous fluid, the thorough flushing and draining was thought to have brought about the patient's recovery.

British Medical Journal, November 10, 1900.

Progressive Pernicious Anæmia with Spinal Symptoms. By Sir D. Duckworth.—The writer's article is based upon a case of pernicious anæmia occurring in a man aged thirty-six. His illness began in December, 1897, with attacks of vomiting after meals, accompanied by diarrhœa. The first blood examination, made a year later, showed the red corpuscles to be reduced to 1,500,000 per c.ctm. Treatment by rest, bone-marrow, and arsenic brought about marked improvement, the red cells mounting to 3,500,000, and the patient was able to resume his work. In August, 1900, the patient returned with symptoms of some grave disorder of the spinal cord; he was also as anæmic as when first seen. There was marked weakness of the legs, together with a feeling of swelling and numbness in both legs, especially the left. Numbness of the hands was also complained of. On examination, no definite paresis could be made out, and there was no muscular wasting. There was complete loss of sense of position; the legs could be crossed without the patient's knowledge. Complete anæsthesia existed below a line encircling the knees just below the patellæ. The reflexes were exaggerated. Bladder and rectal control was complete. The reaction of the muscles to electricity was normal. The anæmia and debility gradually progressed, and the patient died on October 10, 1900. At the autopsy there were found softening of the lumbar portion of the spinal cord, well-marked iron reaction of the liver and kidneys, and gall-stones, together with anæmia of the various organs. There was no evidence of any toxic source. Although the mouth was not foul, special attention was paid to the state of the teeth. The blood showed marked poikilocytosis, but no nucleated red corpuscles. "The present conception of this distressing malady regards it as the result of a special form of blood destruction, so-called hæmolysis, occurring in the course of the portal circulation, induced by the action of some toxic matter produced in and absorbed from the alimentary tract. The disease is therefore a chronic infective form of toxæmia, which induces profound anæmia, and it is surmised that this toxine is of bacterial origin." The writer recommends the use of arsenic and red ox-marrow, together with good diet and wine.

The Present Position and Future Work of the British Medical Association. By Dr. J. W. Byers.—A presidential address, delivered October 18, 1900.

The Vulgar Errors and Superstitions of West Somerset in their Relation to Medicine. By G. F. Sydenham.

Enteric Fever in the Army in South Africa, with Remarks on Inoculation. By Dr. H. H. Tooth.—It was found to be almost impossible to deal satisfactorily with the question of sterilization of the water for the troops in South Africa. Boiling and filtering take time, and a raging thirst is one of the most imperious of appetites. Even medical officers succumb to the irresistible desire to quench their thirst without delay.

Whirlwinds and dust are two most important factors in the dissemination of typhoid fever, which are entirely beyond human control. Paper from latrines is carried everywhere, and, as all cooking is done in the open air, food is readily contaminated by the dense clouds of dust. Proper significance must be given to another pest—flies. The disappearance of typhoid fever and flies with the first appearance of the frost at night may be more than a coincidence. As regards water analyses, a careful examination of the source of supply and the course of transmission is of far greater value than any analysis. Out of twenty-eight members of the hospital staff who were inoculated with enteric toxine, nine contracted the fever, but none of them died. There were fifty-three patients in the hospital with typhoid fever who had been previously inoculated against the disease in England. Of these, three died, a mortality of 5.6 per cent. Of the 178 non-inoculated patients, twenty-five died, a mortality of 14. per cent. It is not unlikely that the reaction of the individual to the injection of the toxine may afford valuable information as to the relative immunity of the persons inoculated. The process has not had a fair trial. Professor Wright insists on the importance of second inoculations, but very few individuals have had the operation performed again.

Enteric Fever in South Africa; Effective Sterilization of Excreta. By H. A. Cummins, R. A. M. C.—The writer describes the method of sterilization of excreta from cases of enteric fever used by him during the epidemic at Bloemfontein. All stools and urine were boiled in a thirty-gallon iron "jackpot" containing about two gallons of a 1-to-20 solution of carbolic acid. The pot was kept boiling night and day, being emptied only when almost full, sufficient residue being left to affect the next stool. Carbolic acid was also added from time to time. There was practically no odor, the only smell being that of carbolic acid, which was scarcely perceptible at two yards' distance. Cultures made from the contents of the pot, after boiling, showed no signs of bacterial growth. The same process was used for the disinfection of soiled clothes, the two pots being supported by a simple brick furnace and closed with sheet-iron covers.

The Treatment of Dysentery. By W. Watkins-Pitchford, F. R. C. S.—The writer reports his experience in the treatment of dysentery occurring in Natal. Every known method of treatment was resorted to. He found that saline aperients, ipecac, and the tincture of *Mousonia ovata* were of practically no value, but he admits that their failure may have been due to the fact that all the cases were well advanced when first seen by him. A greater success attended the use of mercury bichloride with bismuth and opium, but the best results followed the administration of "izal" in combination with bismuth and chlorodyne. In every case of sporadic dysentery seen by him this combination brought about a rapid cure. Milk is not a suitable diet in dysentery; clots of casein penetrate as far as the rectum. Beef-tea with bread and butter is very satisfactory and harmless. A great risk accompanies the giving of rectal injections; further, antiseptic enemata and rectal irrigations are productive of great distress. Typhoid fever often coexisted with dysentery, the cardinal symptoms of both being much modified. In such cases Widal's reaction was of the greatest service as an aid in diagnosis.

Notes on a Case of Acute Yellow Atrophy of the Liver. By G. H. Pearce, L. R. C. P.—The writer reports the case of a man, aged thirty-three, who had been suffering for a few days with weariness and exhaustion. He had taken to bed two days before seeing the physician. His temperature was 102° F., and the general appearance was that seen in some cases of typhoid fever. The abdomen was swollen and tympanitic, the area of hepatic dullness being almost gone. There was marked tenderness over the liver and spleen. The urine was slightly albuminous and bile-stained. Four days later he had a violent hæmorrhage from the nose, much blood being lost. The skin was intensely jaundiced, and numerous small hæmorrhages had occurred under the skin all over the body. The condition of the patient steadily grew worse, and he died quite suddenly, seven days after the physician's initial visit. No autopsy was obtainable.

A Case of Acute Yellow Atrophy of the Liver. By C. T. Anderson, M. R. C. S.—The writer reports a case of the above-mentioned affection occurring in a nurse aged twenty-two. The illness began with constipation, vomiting, and great abdominal pain. On percussion, there was noticed a marked diminution of liver dullness. The urine soon became almost black with bile, and contained many leucine plates. Eight days after the beginning of the illness, marked cerebral symptoms supervened—weakness and numbness of the legs and moderate dementia. Tenderness was limited to the area over the liver. The diagnosis of acute yellow atrophy of the liver was now made. She sank steadily and died on the sixteenth day. At the autopsy the liver was found to be flabby and soft, weighing fifty ounces. Microscopical examination showed a moderate degree of fatty and granular degeneration of the liver cells, but no large areas of destruction.

An Account of Seven Cases of Acute Irritant Poisoning. By Dr. W. H. Packer.—The writer reports the case of a family who were poisoned by eating a giblet stew which had been cooked twenty-seven hours previously. They were all taken violently ill with purging, abdominal pain, and vomiting. When seen, twelve hours later, all were in a serious condition, with profuse diarrhœa, intense pain in the region of the umbilicus, and incessant vomiting. Two cases proved fatal, those of the mother and the youngest child. The mother did well for two days, when collapse suddenly took place, resulting in death. Nothing of importance was found at the autopsy. The writer looks on these cases as instances of ptomaine poisoning, meaning by ptomaines the toxines, or animal alkaloids, formed by the multitudinous germs leading to putrefaction of animal matter. Changes in food, caused by such organisms, can occur without being perceptible to taste or smell. When the giblet stew was eaten immediately after cooking, it was harmless. Attention is drawn to the facts that diarrhœa was the first symptom in all the cases, and that desquamation took place during convalescence.

A Case of Lead Poisoning by Beer. By E. R. Morgan, M. R. C. S.—The writer reports the case of a carpenter, aged forty-three, who contracted lead poisoning by drinking beer which held small quantities of lead in solution. On examination, he showed all the signs of marked lead intoxication, such as gastric catarrh, constipation, muscular weakness and tremor, and the blue lines on the gums. He improved but slightly under treatment, and died some months after leaving the hospital. It was learned that the man was in the habit of drinking a glass of beer very early in the morning; this he always obtained from the same public house, where the beer was drawn through old lead pipes, so that the first glass of beer drawn in the morning had been in contact with the lead all night. Chemical examination of such a first glass showed the presence of lead.

Notes of a Series of Cases of Glandular Fever Occurring in Epidemic Form. By Dr. L. Durno.—The writer describes an epidemic of glandular fever (the *Drüsenfieber* of Pfeiffer) which came under his notice in the spring of 1900. The illness began suddenly with headache and nausea, pain on one side of the neck (usually the left), and a temperature ranging from 100° to 105° F. Constipation was the rule, with pale stools. From twelve to thirty-six hours after the onset there appeared a distinct and definite swelling on the affected side of the neck, generally under the edge of the sternomastoid muscle. This proved to be a group of enlarged glands, from three to five in number, very tender, separate, and quite movable. The skin over them was not red, and there was no tendency to suppuration. In one-third of the cases the glands on the opposite side were also attacked. There were well-marked increased hepatic dullness and tenderness in all but the very mild cases. In every case there was a peculiar deep purplish blush over the fauces, tonsil, and pharynx of the affected side, contrasting markedly with the appearance of the healthy side. Dysphagia was present in all cases. There was no nasal discharge; acute otitis media developed as a complication in two cases. At the end of the first week the constipation was replaced by diarrhœa, with slimy stools, which seemed to mark a crisis, improvement following its appearance. Acute anæmia developed rapidly, and in one case was extreme. There were no deaths. In every household in which the malady appeared, very few of the younger members of the family escaped. Sodium salicylate with calomel purges, and arsenic and iron during convalescence, gave good results. The mucous membrane of the pharynx was kept in as aseptic a state as possible; the two cases of otitis occurred where this was neglected. The pathology of the disease is unknown; it is highly infectious and almost entirely confined to childhood.

Gazette hebdomadaire de médecine et de chirurgie, October 25, 1900.

Subtrochanteric Osteotomy for Vicious Ankylosis of the Hip.—M. Louis Mencière reports an operation of this nature upon a man twenty-eight years of age who had been afflicted with a vicious ankylosis of the left hip-joint for twenty-four years. An excellent result was obtained, both anatomically and functionally. The author insists upon the necessity of the after-treatment of these cases by massage and electricity. He considers these elements essential to perfect the cure.

October 28, 1900.

White Blood Cells in Disease.—M. J. Jolly regards leucocytosis in disease as a defending action of the cells against the germs of disease. When a leucocytosis persists after convalescence seems to be established, as is frequently the case in pneumonia, it is evidence that the disease has not reached its termination. The author regards it as a reaction that gives us the measure of the intensity of the disease. The seeming discrepancy of the absence of a leucocytosis in rapidly fatal intoxications can be explained by the fact that the latter are grave infections from the beginning, and run their course rapidly, while the former represent the somewhat slow extension of an anatomical lesion. The leucocytes are able to absorb, not only living bacteria, but soluble substances as well, so that they probably get rid of some of the toxines elaborated during disease. Moreover, by means of their emigratory power, the white cells can pass to points which the blood cannot reach, and thus carry out their work. The origin of the antitoxines is still in dispute; whether they are derived from the leucocytes or from various organs is not definitely known.

Bronchial Fistula.—M. O. Lambret reports the case of a man, fifty-seven years of age, not operated on, who presented a bronchial fistula.

Progrès médical, October 27, 1900.

Heredity.—M. Chantemesse concludes his lengthy and learned paper on this subject. He sums up by saying that truly hereditary characteristics result from the fusion of the paternal and maternal germinative cells, or, rather, the chromatin bodies of these cells; he points out how the germinative cells, the embryo, or the fœtus, can become infected by the virus of toxines or poisons known to exist in the body. The reduction of the chromatin in the act of maturation of the germinative cells, and perhaps also the qualitative division of the microsomes of the nuclei of the cells, help in the eradication of certain definite characters of the parents, or aid in carrying them over one or two generations. The moral ego, the natural personality, which is first in the consciousness and which has been designated by metaphysicians as an irreducible unit, only represents the true state of equilibrium between the diverse hereditary forces. The ego is subject to suggestion, that is,to education, and thus by education, hereditary tendencies which are latent may be reinforced, while others, even though they are prominent, may be relegated into obscurity or, at least, into the background.

In pathological hereditary transmission, we have good instances in the birth of healthy children when a father is sober at the time of procreation, and the reverse, showing that the poisons once eliminated, the fecundating act produces healthy offspring. As to syphilis, its transmission and the prevention of its transmission by suitable treatment are well understood. As to tuberculosis, there is good reason to believe that, in the great majority of instances, infantile tuberculosis is acquired, and that contagion plays the most important rôle. While the direct hereditary influence, especially on the part of the mother, cannot be denied, it is of secondary importance.

November 3, 1900.

Cases of Rebellious Syphilis. By M. F. Buret.

Exenteration of the Globe of the Eye in Panophthalmitis. By M. Albert Terson.

Indépendance médicale, November 7, 1900.

Irreducible Tumors of the Scrotum.—M. Delbet writes in a clinical lecture on cysts of the epididymis, strangulated hernia, hæmatocele and hydrocele, and mentions the points by which they may be distinguished from each other.

Annales des maladies des organes génito-urinaires, October, 1900.

Development of Tuberculous Epididymitis.—M. Antonino Paladino-Blandini has performed experiments to determine the mode of development of tuberculosis of the epididymis. He finds that the tubercle bacillus, like other motile pathogenic or non-pathogenic germs, can travel from the urethral orifice to the epididymis, or even to the testicle. Infection by coitus is therefore an admissible hypothesis. The route traveled by the infecting germs is in direct relation to their virulence; this accounts for the fact that the epididymis is more frequently attacked than its neighboring testicle, because it is first to receive the germs. The bacteria are propagated on the mucous surfaces without involving the subjacent tissues; in this way gonorrhœal epididymitis can be explained without recourse to lymphatic infection, or to a general infection of the seminal glands. Nevertheless, the gonococcus can reach the epididymis by several routes, and there it grows readily on account of the great vascularity of the organ. The mere presence of the tubercle bacillus does not suffice to evoke an inflammatory process; the congestion of the organ is necessary to produce a specific inflammation, just as it is essential, as the author found, to call forth an orchitis by the colon bacillus.

Lyon médical, November 4, 1900.

Varieties of Congenital Luxation of the Hip. By M. Jaboulay.

Therapeutic Value of Oxygenated Water.—M. Marcel Rifaux says that peroxide of hydrogen has no toxic properties, is without odor, has an antiseptic value of high order. and is a powerful deodorant. Its hæmostatic properties, also, are excellent.

Contusive Pneumonia in an Alcoholist.—M. C. L. Gautier reviews the case of a man, forty-seven years of age, who suffered from a lobar pneumonia a day after a severe fall by which he contused the left side of his chest where the pneumonia was localized. He subsequently had an abscess at the site of fracture of one of his ribs, which contained the pneumococcus in pure culture. (*To be continued.*)

Journal des praticiens, October 27, 1900.

Artificial Anus in a Suppurating Pelvic Cavity Following Abdominal Hysterectomy.—M. H. Morestin gives the details of the case of a young woman, twenty-eight years of age, upon whom a hysterectomy had been performed for a pelvic abscess of large extent. Following the operation, a fæcal fistula remained and drainage ensued through the vagina and a large fistula just below the umbilicus. The abdomen was opened and a resection of the intestine was done which, after a number of accidents, succeeded in effecting a cure.

The Evolution of Varicella. By M. Pierre Merklen.

Annales de dermatologie et de syphiligraphie, August-September, 1900.

What is Eczema?—Professor Kaposi says that the first essential of an eczema is an inflammatory process, although not all inflammations of the skin are eczemata. Its second characteristic is, that an eczema can be evoked directly by mechanical means, by heat, or chemically, while other inflammations of the skin cannot be so produced. Thirdly, an eczema produces pruritus which, by scratching, calls forth the complications of eczema—pustules, abscesses, etc. Fourthly, eczema is a cylic disease, comprising a period of evolution, one of acme, one of resolution, and a terminal period; these events characterize the first eruption as well as subsequent ones. Further, microbes exist constantly in great numbers in and upon the epidermis, but they never produce an eczema unless one of the before-mentioned irritants is active. Experimentally, this has been proved again and again. Kaposi protests against the dicta of Unna and Brocq, that vesiculation is not to be regarded as a characteristic of eczema; the evolution of the vesicles marks the acme of an eczematous attack. Acute eczema may be the forerunner of a chronic eczema, which Kaposi divides into two forms: 1. True chronic eczema, in which eczematous lesions are always present through months or years, reappearing as exacerbations separated by remissions. This form appears often in those whose occupations lead them to handle irritant substances. 2. Recurrent chronic eczema, or better, acute and disseminated attacks of eczema. In this form, the eruption appears during months or years as an acute attack in different parts of the body, each attack going through the cycle of the first acute onset. This is the variety that is marked by most of the complications of eczema.

Summing up the factors which are most potent in perpetuating eczema, Kaposi mentions them in this order: (1) "reflex" eczema, produced in turn by an eczema; (2)

scratching induced by the itching; (3) the irritability of the blood-vessels and nerves of the entire skin caused by the presence of eczema; this irritability is sufficient to bring forth an eruption, on the slightest provocation, from the collar, the use of toilet water, perspiration, etc. Weakness of the entire organism finally ensues, the quality of the blood is changed, the nutrition suffers, insomnia is not infrequent, and anæmia, gastric disturbances, and psychic effects may supervene. "Gastric" and "nervous" eczema, "eczematous dyscrasia," are thus easily understood when construed in this sense.

Nature and Treatment of Alopecia.—M. Jacquet recommends cutaneous massage in alopecia, to be repeated from four to six times daily. The resulting hyperæmia is one of the principal elements of cure. Epilation and the inunction of spirits or of some oily substance are also beneficial. The irritants, oil of cade, gaultheria, acetic acid, etc., may be added to the anointing solution. Concomitant internal diseases, such as the uric-acid diathesis, gout, diabetes, dyspepsia and albuminuria, must be rigidly treated. All excesses, especially sexual, must be avoided, hydrotherapy may be tried, and a trip to the mountains may be of service.

Desquamative Scarlatiniform Erythema of Parasitic Origin. By M. Pascal.

Presse médicale, October 24, 1900.

Open Reduction of Fractures.—M. T. Tuffier urges the use of the Röntgen rays in every case of fracture, to ascertain whether the fragments are or are not perfectly coapted. Two classes of people, he says, object to their use; patients who cannot understand the interpretation of the picture, and surgeons who are so well satisfied with their methods of fixation that they can see no advantage in the use of the rays. Further, artisans or artists should not be allowed to pass judgment on Röntgen-ray pictures of fractures; the physician only should do this.

In fractures in which the fragments are not well united, the Röntgen rays prove it, and asepsis permits the open method of treatment; that is, an incision over the site of the fracture, the use of traction and reduction of the fragments (which are best accomplished by special bone forceps), fixation of the fragments, suture of the soft parts, and, finally, the application of suitable fixation apparatus. Fractures of the epiphyses, especially, are suitable fractures for reduction by the open or "bloody" method.

Pneumococcus in Angina. By M. F. Bezançon and M. V. Griffon.

October 27, 1900.

Subarachnoid Anæsthesia by Cocaine and Eucaine.—M. F. Luguen and M. L. Kinderdjy report fifty-seven cases of subarachnoid anæsthesia, forty-eight by the use of cocaine, nine by the use of eucaine. Their technique is that of Tuffier, already well known. They intend to continue with the use of eucaine in preference to cocaine, in order to minimize the dangers of the procedure. In twenty-four cases, vomiting was an annoying sequel, and in the same number, intense headache was complained of. An elevation of temperature was observed twelve times, in one case reaching 104° F. Insomnia, pupillary dilatation, slight mental disturbance, incontinence and retention of urine, and relaxation of the sphincter ani muscle were also noted. The authors think this form of analgesia suitable in cases in which ether or chloroform cannot be used, and when the patient has great fear of general anæsthetic. For serious abdominal operations, they are opposed to its use on account of the mental shock. In gynæcological operations, the lack of muscular relaxation is apt to prove a hindrance. Among the advantages of lumbar anæsthesia are the consciousness of the patient, his ability to eat before and after the operation, and the frequent absence of vomiting.

Dysentery in Brittany. By M. E. Lenoble.

Deutsche Medizinal-Zeitung, October 29, 1900.

Hyperemesis Gravidarum.—Dr. I. M. Lwow, in this instalment, speaks of the curious changes in taste and tolerance for previously obnoxious articles of diet that pregnant women who vomit much, display. He accepts Horwitz's classification of hyperemesis into two stages: In the the first, there are anorexia, repugnance to food formerly enjoyed, and a perverted appetite. Increased thirst, salivation, and mental depression, quickly follow. Still, some food is retained and the appetite does not entirely vanish. In the second stage, vomiting is frequent and follows the ingestion of any food or drink. Mucus and blood are often vomited. Inanition is rapid, vomiting is constant, the tongue is dry and the gums are fuliginous. Constipation, diminished urine of a concentrated and albuminous character, and a rapid and irregular pulse, are features of the case at this time. Death is gradual. (*To be continued.*)

Berliner klinische Wochenschrift, October 22, 1900.

Snap-finger.—Professor Tilmann writes on this anomaly. There is nothing new in his pathology or ætiology. He recommends massage, fixation of the finger in the extended position, and daily change of dressing. Counter-irritation, with iodine and passive movements of the affected joint, is to be practised. If these are of no avail, the displaced or rolled-up tendon must be subjected to operative intervention.

Molecular Concentration of Blood in Eclampsia.—Dr. Alexander Szili has examined the blood of six eclamptic women, and says that the freezing point is the same as that of normal blood, which proves that the eclamptic blood contains no urinary constituents, such as salts or urea. It also shows that the renal lesion as to permeability is not the same as in uræmic processes. This would lead to the conclusion that the toxic elements in the blood are due to complex atomic combinations, such as might ensue from albuminous metabolism, possibly as the intermediate products from the proteid molecule.

Fracture of the Greater Tubercle of the Humerus. By Dr. Heinz Wohlgemuth.

Hæmorrhagic Erosions of the Gastric Mucous Membrane. By Dr. C. Pariser.

Views of Rabies at the End of the Nineteenth Century. (*Conclusion.*)—Professor Babes, in this instalment, says of Pasteur's discovery that it reduced rabies to a mathematical exactness in fixing its virulence and limits. He says that cauterization immediately after a bite, prolongs the period of incubation, thus giving the serum inoculation a more favorable opportunity. He concludes by lauding the work of such laboratories as Pasteur's, which offer to the community something tangible as a result of their work, and hopes that the great progress made in the study of rabies may be transmitted to other important pathological and biological problems.

Wiener klinische Rundschau, October 28, 1900.

Bicorned Gravid Uterus or Projection of a Uterine Horn.—Dr. Adolf Hink reviews a case in which a difficulty was experienced in deciding between a bicorned uterus and a gravid uterus with prominences. The author says that these prominences are frequently felt in pregnant uteri, and are due to uterine contractions. Careful examination will usually decide the exact condition present.

Examination of Prostitutes (*continued article*). By Dr. Karl Gumpertz.

A New Kola Preparation.—Dr. Julius Flesch offers the following combination for the treatment of functional nervous diseases:

Ferrocitrate of quinine	45 grains;
Nitrate of strychnine	$1\frac{1}{5}$ "
Fluid extract of kola	375 "
Glycerophosphate of sodium	375 "

Dissolve slowly by heat and add

Syrup of orange peel	6 ounces.

The dose is a teaspoonful after each meal. The author says that he has achieved excellent results with this preparation as a tonic.

Klinisch-therapeutische Wochenscrift, October 28, 1900.

Phenosalyl in Laryngeal Tuberculosis.—Dr. Stanislaus von Stein says that phenosalyl is composed of

Carbolic acid	9 parts;
Salicylic acid	1 part;
Lactic acid	2 parts;
Menthol	$\frac{1}{10}$ part.

As a bactericide, it stands next to bichloride of mercury in efficiency. He has used it in sixteen cases of laryngeal tuberculosis, always applying a local anæsthetic first. Dysphagia soon became improved, dry tuberculous ulcers without œdema and infiltration became clean after a few treatments, and the larynx assumed a rosy red color. Limited or diffuse infiltrations without ulceration became smaller and rosy in color, and the epiglottis contracted so that it became movable. When ulceration was combined with the infiltration, improvement was even more rapid. The voice improved in all the patients. As the local symptoms improved, so did the dyspnœa and expectoration. The bacilli were reduced in all cases except when there was a pulmonary involvement. The author regards this method of treatment as positively curative. He has also had excellent results with the combination in chronic and atrophic rhinitis, pharyngitis and tonsillitis, and otitis media purulenta.

Multiple Neuritis and Ataxia. By Dr. Koloman Pándy. (*Continued.*)

Klinische Monatsblätter für Augenheilkunde, October, 1900.

Influence of a Paralyzed Iris Muscle upon its Antagonist.—Dr. Georg Levinsohn, on experimental and clinical evidence, concludes that the paradoxical dilatation of the pupil depends upon a diminution of the tone of the sphincter muscle. It is questionable if this paresis depends upon functional inactivity or nervous disturbance. Paradoxical pupillary dilatation is, however, but an instance of the diminished power of the function of antagonistic iris muscles.

Three Cases of Conjunctival Tuberculosis.—Dr. A. Birch-Hirschfeld and Dr. W. Hausmann report three cases. One was contracted from milking a tuberculous cow, the second from nursing a tuberculous woman. (*To be continued.*)

Erysipelas of the Eye. By Dr. Thier.

Malformation of both Eyes.—Dr. Ernst Blessig records the case of a child who was the subject of peculiar congenital malformations of both eyes. There existed a total symblepharon of the upper lid of the right eye, a total ankyloblepharon, and a cryptophthalmos of the left eye.

Atypical Case of Æstival Conjunctivitis. By Dr. Gustav Ahlström.

Congenital Ocular Anomalies.—Dr. C. S. Lechner reports a case of a child with a choloboma of the optic nerve. No other anomaly was found. The author thinks the lesion was due to an inflammatory process.

The Actual Burning-point of the Lens. By Dr. K. von Brudzewski.

Centralblatt für Gynäkologie, November 3, 1900.

Pathology of the Placenta.—Dr. E. Martin says that the proliferation of the syncitial cells described by Bulius and Fink as characteristic of eclampsia, represents a normal process which begins about the seventh month of pregnancy and is always found in placentæ at term. It is, therefore, not pathognomonic of eclampsia or of nephritis. The author will later publish a fuller report of his investigations.

Spontaneous Gangrene of the Bones in the Puerperium.—Dr. E. Wormser narrates the case of a healthy woman who, six days after delivery, suffered from a thrombophlebitis. Six days later she began to have pain in the foot and on the following day gangrene appeared which continued to spread, involving the entire foot, which was amputated. Recovery followed. The author thinks it was due to an embolism of the anterior tibial artery which was a sequel to the phlebitis. In reviewing the cases in literature, the author says that the easiest cases to understand are those dependent upon an embolism from diseased heart valves or an open foramen ovale; the cases due to a primary arterial thrombosis from the placenta come next. The most difficult cases to account for are those of complete venous obliteration; it would seem that all vessels, large and small, must participate in the process to prevent collateral circulation being established in such a vascular part of the body as the foot. Possibly the greater coagulability of the blood in the puerperium may be a factor in producing such a condition.

The Treatment of Puerperal Fever.—Dr. Victor Steiner says that in the Hagenau Hospital, in cases of puerperal sepsis, the vagina is thoroughly douched with a 1-1,000th solution of lysol and then the uterus is washed out with one-half-per-cent. solution of cresol. Quinine is given in full doses. An ice-bag is applied if there is abdominal pain. The bowels are carefully regulated, but if there is peritoneal irritation in the form of a peri- or parametritis, the stool is confined sometimes as long as one week. Not much success has followed the use of the antistreptococcic serum.

Centralblatt für Chirurgie, November 3, 1900.

Intracranial Removal of the Gasserian Ganglion.—Professor Julius Dollinger says that the Gasserian ganglion can be removed safely without ligature of the middle meningeal artery, by the intracranial method. He has performed the operation five times and has thus avoided the complications arising from ligature of this vessel. The anterior branch of the artery lies, in the majority of cases, against the anterior lower border of the parietal bone enclosed in a bony canal; even when it lies exposed, the hæmorrhage is only exceptionally severe.

There is no indication, therefore, for exposing the external carotid before the removal of the ganglion in every case, in order to tie it hastily if necessary.

Monatsschrift für Geburtshilfe und Gynäkologie, October, 1900.

Ovarian Tumor, Hæmatometra and Hæmatocolpos.—Professor G. Heinricius reports the case of a young woman of twenty-one years of age who presented the conditions mentioned. It was found, at the operation, that the uterus possessed a single rudimentary horn, and that the vagina was rudimentary also. After the operation the young woman menstruated, showing that the mucosa of the left horn of the uterus and the left ovary were functionally capable.

Myoma in a Rudimentary Uterus.—Professor G. Heinricius reviews a case of bicorned uterus with one cervix which contained a myoma. The vagina, too, was rudimentary.

Fifty-eight Cases of Eclampsia without a Death.—Professor Stroganoff reviews fifty-eight consecutive cases of eclampsia, all the patients recovering. He regards the disease as an acute infectious one with a short course, rarely extending over twenty-four hours, almost never over forty-eight. After the first attack, morphine and chloral combined are given repeatedly until the patient is completely narcotized. He regards it as desirable to keep the patient in this condition for from twenty-four to forty-eight hours, according to the severity of the attack. Strict attention must be paid to the regular functional activity of the heart and lungs; that of the former may be fostered by rectal infusions and the ingestion of fluids by mouth during the periods of consciousness. All possible sources of irritation must be avoided while a safe, but rapid, method of delivery must be chosen. The author adds thirteen additional cases treated by these measures, all of which resulted in a recovery of mother and child. From sixty to seventy-five grains of chloral hydrate and from one to two grains of morphine were used, on an average.

Case of Polypoid Cystic Cystadenoma of the Uterus. By Dr. Wilhelm Fischel.

Rupture of Abdominal Wound after Laparotomy. By Dr. Heinrich J. Kreutzmann.

Rupture of the Uterus during Pregnancy.—Dr. T. Alexandroff reviews the details of such a case. He believes that the occurrence of this accident during gestation is fostered by adherence of the placenta, which has a tendency to become adherent when there is a connective-tissue proliferation of the uterine wall. The decidual tissue represents a protective covering, injury to which favors the development of a *locus minoris resistentiæ* in the uterus. If there is a history of an adherent placenta in a previous confinement, it should lead to careful observation in succeeding pregnancies and labors. When the uterus ruptures, the first consideration must be hæmostasis, after which the fœtus may be secured by a carefully conducted laparotomy. The author states that a microscopic examination of the site of rupture is indispensable to a correct knowledge of the cause of the accident.

The Contraction Ring and its Relation to the Mechanism of Birth. By Dr. Emil Rossa.

Horizontal Incision in Cæsarean Section.—Dr. Hugo Hühl does not favor Fritsch's recommendation to incise the fundus of the uterus crosswise in the performance of Cæsarean section. The sagittal incision, he says, permits easier suture of the uterine wall, and infection is not so easily favored. The uterus, after being emptied, is thinner at the fundus than elsewhere, while suture of a sagittal section gives greater security, even if it extends through the contraction ring. The horizontal scar at the fundus, says the author, does not hold so well as the sagittal scar in the body of the uterus.

Influence of the Ovaries on Genital Development.—Dr. Josef Halbau has performed a number of experiments by transplanting ovaries and tubes in animals. He concludes that the atrophy of the uterus seen after extirpation of the appendages, is not due to ligature of the spermatic arteries, as has been urged, for in his experiments, no such atrophy was observed, although these arteries also were ligated. The transplanted ovaries and tubes retained their finest anatomical structure. Even when all nervous and vascular connections between the ovaries and the other genitals had been destroyed, no changes were observed. The ovary undoubtedly has an internal secretion, Halbau concludes, which is taken into the blood and is essential to prevent atrophy, or, at least, to permit the development of the other genital organs, including the breasts. It is the trophic centre of the other genital apparatus. The author thinks that his experiments prove the correctness of the theory of internal secretions by the germinal glands.

Wiener klinische Wochenschrift, October 4, 1900.

Mouth and Pharyngeal Movements in Aortic Insufficiency.—Dr. Hermann Schlesinger says that pulsation in the pharynx and mouth is to be observed in cases of aortic insufficiency, usually only when pulsations in other parts of the body are very evident. Sometimes it may be observed under extremely favorable conditions in patients well trained to keep perfectly quiet. The movements of the tonsils and of the sides of the pharynx are inward in consequence of the heavy beats of the carotids and synchronous with them. Huchard has described this phenomenon as "pouls amygdale." There may also be observed in some cases a weaker pulsation of the soft parts, a swelling and a diminution. This can be seen in the tongue synchronous with the carotid beat, disappearing with diastole. During systole, the gums become plumper, the uvula increases in volume and approaches the base of the tongue, which rises at the same time. The posterior pharyngeal wall also bulges forward. If the phenomenon is extensive, a rhythmic narrowing of the mouth and pharyngeal cavities can be observed. The author believes that while these phenomena are not of diagnostic value, they are of clinical interest.

Treatment of Pulmonary Tuberculosis with Intravenous Injections of Hetol.—Dr. Anton Krokiewicz says that by following this method of Landerer, he has succeeded in curing one case and in ameliorating the condition of many others. In some instances, improvement was obtained by the intravenous injection of hetol combined with the subcutaneous use of arsenious acid. The author thinks the method of value only in early cases. Beginning doses of but from seven-hundredths to seven-thousandths of a grain should be used at intervals of from three to four days. The injections are to be stopped if any loss of weight or other unfavorable sequels are noted. The treatment is not specific, but it evokes a leucocytosis in the diseased foci, thus helping to produce a fibrous condition of the caseous masses and increasing the vital energy. It thus produces an increased appetite and an increase of weight, a diminution of the sweating and diarrhœa, or their entire cessation. It is, therefore, only a temporary aid to a cessation or cure of the diseased pulmonary focus.

Archiv für pathologische Anatomie und Physiologie und für klinische Medicin, September 4, 1900.

Structure and Genesis of Cavernoma of the Liver.—Dr. Victor Schmieden concludes from a clinical and pathological study: (1) that cavernomata of the liver do not arise from a primary connective tissue or vascular proliferation, or from congestion or primary atrophy of normal liver areas, or biliary stasis or hæmorrhage; (2) that they more probably arise from some congenital tissue transposition or defect in the development of the liver—they are therefore due to tissue deformities, and acquire their definite form from a secondary, retrogressive change; (3) that cavernomata of the liver are not analogous to angeiomata of other parts of the body—they should be called "cavernomata" or "naevi cavernosi hepatis"; (4) they are observed at all ages, even in the unborn fœtus; (5) that they are identical with cavernomata in the lower animals; (6) that they never show a tendency to become malignant.

Muscle Degeneration in Chronic Tuberculosis.—Dr. von Schmieden reports a case of degeneration of the rectus abdominis muscle in a man dead of chronic tuberculosis. The muscle tissue showed simple atrophy, fatty and vacuolar degeneration and waxy degeneration.

Pigment of Brown Induration of the Lung. By Professor E. Neumann.

So-called Idiopathic Abscesses of the Liver.—Dr. G. Beyfuss believes that tropical abscess of the liver cannot be considered in its origin as a disease *sui generis,* and thinks that in time this peculiar disease of hot climates will be found to be due to the inflammatory or purulent excitants which characterize the disease elsewhere, with this difference, that the liver presents in these climates a *locus minoris resistentiæ* to the repeated attacks and invasions of mycotic life.

Position of Malignant Adenoma in Oncology.—Professor David Hausemann says that destructive adenomata do not essentially differ from carcinomata, but they are inferior to them in their malignancy. It is impossible, he urges, to decide upon the malignancy of an adenomatous growth if only a superficial portion of the neoplasm is submitted. The involvement of neighboring tissues by way of the lymph channels is the only criterion by which a decision can be reached. In a purely malignant adenoma, the parenchyma cells can be no longer distinguished from the basic or mother cells, as is the case in the benign adenomata, the adenomatous polypi and the glandular hyperplasias resting upon an inflammatory basis.

Acute Splenic Enlargement in Poisonings and the Acute Infectious Diseases.—Dr. Georg Jawein concludes from experiments with various poisons that the acute swelling of the spleen is due to the disintegration of red blood cells which accumulate in the spleen. It is probable that these destroyed cells are retained by the spleen, and that they exercise a specific irritation upon the pulp cells of the organ whereby its functions are heightened, hyperæmia ensues, and hypertrophy and hyperplasia of the pulp of the spleen follows. The author's observations on the acute infectious diseases lead him to believe that they evoke an acute enlargement of the spleen for the same reason. He does not credit Ehrlich's explanation of the phenomenon, that it is due to the degeneration products of the white cells. From his experiments, the author concludes that the physiological function of the spleen is to free the blood from disintegrated red blood cells; that is, that it acts as a filter for the blood, taking out especially the red blood cells. He bases his reasons on the appearance of many microcytes—which he regards as destroyed red cells—in the blood after extirpation of the spleen, and the accumulation of many micro-organisms in the spleen, which is unable to get rid of them after having received them in the red blood cells. They form foci from which new attacks may break forth.

Myeloma in its Anatomical and Clinical Relations (*conclusion*). By Dr. Karl Winkler.

Innervation of the Bladder. By Dr. Eugen Rehfisch.

Mechanics of a Closed Pneumothorax. By Dr. E. Aron.

Riforma medica, October 16, 1900.

The Determination of Small Quantities of Sugar in the Urine and in Organic Fluids in General—Demonstration of Physiological Glycosuria. By Dr. Enrico Reale.—The difficulty in finding small amounts of sugar in the urine is due to the fact that the tests which we have at present are not sufficiently delicate, and that other reducing agents besides sugar may exist in the urine and thus obscure the test. The author has devised a simple method of testing for sugar, based upon the precipitation with lead, instead of with copper, as in Fehling's test. The procedure is as follows: The urine is first mixed with a solution of neutral acetate of lead, which serves to separate all other reducible substances; the filtrate is then treated with ammonia, the voluminous precipitate which forms is collected upon a filter and then treated with soda lye. Either the precipitate itself or its alkaline solution may serve for the determination of sugar. The glucose, if present, has been precipitated by means of the acetate of lead and the ammonia. According to Peligot, the formula of the combination, dextrosate of lead, is $(C_6H_9O_6)_2 Pb_3 + 3H_2O$ or $C_{12}H_{24}O_{12}$ $3PbO$. According to Winter, the precipitate contains 69 per cent. of PbO, and Rubner has found that, on standing or on heating, it becomes red, but, if instead of glucose there is lactose, the reaction does not take place, or only takes place with difficulty. This reaction is more delicate than the ordinary tests and very minute quantities of glucose can be detected by means of it.

October 17, 18 and 19, 1900.

Concerning Primary Tuberculosis of the Vagina. A Case Cured by Surgical Operation. By Dr. M. Jorfide.

October 20, 22, and 23, 1900.

Concerning Tumors of the Heart. By Dr. Alessandro Tedeschi.—The author reports a case of primary sarcoma of the breast, followed by metastases in almost every organ of the body, not excluding the heart.

October 24, 25, 26, and 27, 1900.

Excision of the Middle Portion of the Duodenum in Sarcoma. By Dr. Guido Cavazzani.

Gazzetta degli ospedali e delle cliniche, October 21, 1900.

Researches Concerning the Action of Glucose in the Animal Organism. By Dr. Giuseppe Lucibelli.—The author's conclusions, based upon an extensive series of experiments on animals, are as follows: 1. If injected subcutaneously in considerable doses—1.90 to 2.20 grammes per hundred of the animal's weight—glucose causes the death of the animal after a variable interval of time. 2. While a smaller dose does not produce morbid phenomena, it causes a lowering of the vital resistance to such an extent that specific remedies no longer suffice to save the organism when an acute infectious disease is present. 3. If the dose of glucose is very small, say two or three grammes (thirty to forty-five grains) for a rabbit of moderate size, there is no appreciable debilitating effect upon the animal. 4. The serum of animals that can resist fatal doses of glucose does not contain substances which alter this chemical *in vitro*.

Two Cases of Total Vaginal Hysterectomy for Puerperal Infection. By Dr. Jorfida.—Both patients recovered, and the author adds these cases to a list of thirty-three which he has collected from literature. Of these, twenty-two recovered and thirteen died. Of the total number previously reported, nine cases were abdominal hysterectomies (five recovered, four died), ten were supravaginal hysterectomies (nine recovered and one died), ten were cases of vaginal hysterectomy (four recovered and six died), and one case of abdomino-vaginal hysterectomy (recovered). Of the remaining three (one recovered and two died) the method of hysterectomy was not specified. If we add the author's cases to the four recoveries from vaginal hysterectomy in puerperal infection which are recorded, the mortality with this procedure is fifty per cent. This would seem to indicate that vaginal hysterectomy is the operation least suitable for these cases; and yet, in general, the best results are obtained from the vaginal method, among other reasons, because with this method, diffusion of the infection to the peritonæum is less likely, and drainage is better. The figures of the writer are, however, too small to warrant any definite conclusion, and therefore this apparent contradiction may be disregarded, or may be explained by the greater gravity of the cases operated on by the vaginal route.

A Case of Superfœtation. By Dr. Domenico Pomara.—The author discusses the various theories of superfecundation, superimpregnation, and superfœtation, and reports the case of a primipara, aged nineteen years, who had given birth to a boy shortly before the author was called to see her. A few days later, she complained of a feeling of fullness in the lower part of the abdomen, and without examining her, the author assured her that this sensation was due to the fact that the womb had not yet completely contracted. The puerperium was perfectly normal, and after a few days the patient was allowed to leave her bed. But the sensation of fullness and swelling did not disappear, and the author, having been called again, examined the patient and to his surprise found the uterus enlarged to about the size that corresponds to the fourth month of pregnancy. There was a uterine souffle and the woman said that she had felt fœtal movements. Knowing that she had recently been delivered, the author attributed the movements to flatulence, and the swelling to some lesions in the generative organs. He advised an expectant plan of treatment. After observing the patient for one month he was no longer in doubt, for the increase of the uterine tumor, the intensified uterine souffle, the sympathetic disturbances of pregnancy, and the fœtal movements pointed to a new pregnancy. The further course of events justified the diagnosis, and the woman was delivered of a second child on June 13, 1896, six months after the first labor. The previous history of the patient was as follows: She was married at the age of sixteen and remained sterile for three years, during which time she was treated by gynæcologists for stenosis of the cervix. In 1895, a year before the first labor, she had an attack of metritis and salpingoophoritis of the right side. She was advised to abstain from coitus, but when she returned to her home, cured, she speedily became pregnant.

Vratch, October 14, 1900 (October 26, N. S.).

The Sulphurous Mineral Waters of Krainskoe. By Dr. S. I. Zaliesky.—An account of two mineral springs in the village of Krainskoe, in the province of Kaluga, Russia. These springs are cold, and contain considerable amounts of calcium sulphide and hydrogen sulphide.

From the Commission for the Establishment of Dental Attendance in the Schools Appointed by the Russian Society for the Preservation of Public Health. By Dr. A. K. Limberg, chairman of the commission.—The commission publishes a long list of questions printed in the form of blanks, intended to be filled out for each school and including statistics of the condition of the teeth of the children.

Botany and Medicine. By Dr. V. Talieff.—An inaugural address read before the students of the University of Charkoff.

American Journal of the Medical Sciences, October, 1900.

Primary Splenomegaly—Endothelial Hyperplasia of the Spleen—Two Cases in Children—Autopsy and Morphological Examination in One. By Dr. David Bovaird, Jr.—To the extremely scanty literature dealing with similar cases, the author is fortunate in being able to add the cases of two children, sisters, similarly afflicted. The younger is living, aged six years, four years after the onset of the disease. The elder died at the age of sixteen, twenty-four hours after a splenectomy had been done, and thirteen years after the onset of the disease. The spleen in the latter case weighed twelve pounds and a half, the total weight of the child was seventy-five pounds. The form was, in general, that of the normal spleen, but very much larger. Most of the surface was yellowish white in color like fibrous tissue, the normal color appearing upon only a small portion of the surface. Microscopically, there was nothing but the shape and arrangement of the spaces in which the endothelial cells lay and the presence of the Malpighian bodies to indicate the presence of spleen material on the slide. In the lymph nodes is also found a disappearance of the normal cells of the organ, and the development of an unusual number of endothelial cells. Other appearances seemed to demonstrate the presence of a splenic endothelioma; but when it is remembered that the process had existed for thirteen years in the case that came to autopsy, and that, even then, the condition of the patient was not incompatible with the prolongation of life for some years further, and also that the process was developing in a young sister at exactly the same time of life at which the disease appeared in the elder, it must be concluded that we have to do with the action of some systemic poison, rather than with a tumor. The author regards the process as a hyperplasia of the spleen, characterized by an unusual development of endothelial cells and the transformation of a considerable part of the organ into dense connective tissue. This affection, first described by Gaucher as primary splenomegaly, or primary epithelioma of the spleen, is, then, a definite and distinct disease.

Primary Echinococcus Cysts of the Pleura. Report of a Case of Primary Exogenous Echinococcus Cysts of the Pleura, Showing Hyaline Degeneration of the Cuticle without Lamellation, with Notes from the Literature. By Dr. Charles Carey and Dr. Irving P. Lyon.

Sarcoma and Cirrhosis of the Liver. By Dr. W. W. Ford.—The case, reported in this article, represents a combination of an extreme degree of cirrhosis of the liver, with a large tumor mass in the right lobe made up of sarcomatous tissues, and a number of secondary nodules scattered throughout the peritoneal cavity. The combination is probably the first case to be reported in this country.

Report of a Case of Melæna Neonatorum Due Apparently to an Infection by the Bacillus Pyocyaneus. By Dr. William R. Nicholson, Jr.

Distortion of the Aorta in Pott's Disease. By Dr. Thomas Dwight.

The Value of Pedicled Flaps in Injuries of the Hand. By Dr. W. E. Schroeder.—Three highly interesting cases are given, and the author's results seem to justify his methods.

Where it is desired simply to cover the palm, dorsum of the hand, or the palmar surface of the thumb, flaps may be taken with freedom from the chest or abdomen. Where the palmar surface has been destroyed, the author prefers to have double pedicles, and these can be best obtained from the hip. Furthermore, this position is reasonably comfortable. He admits, though, that such a procedure in young and old patients would be very trying and scarcely justifiable. He affirms that this method has the advantages of (1) mobility; (2) elasticity; (3) certainty of result.

Internal Hydrocephalus Following Cerebro-spinal Meningitis. By Dr. Elliott P. Joslin.—The author doubts the efficacy of lumbar puncture in hydrocephalus after meningitis.

A Critical Summary of the Literature on the Diagnostic and Therapeutic Value of Lumbar Puncture. By Dr. Alfred Hand, Jr.—Lumbar puncture is a diagnostic rather than a therapeutic procedure. In diagnosis, attention should be paid to positive results alone. It is not safe to draw conclusions from negative results.

In epidemic cerebrospinal meningitis it is curative; in tuberculous meningitis it is alleviative; and in other conditions of excessive pressure it favors recovery by removing a condition immediately dangerous to life.

Bulletin of the Johns Hopkins Hospital, October, 1900.

On the Ætiology of Tropical Dysentery. By Dr. Simon Flexner.—Although the history of this disease dates from the earliest written records, and its ravages have continued practically unaltered to the present day, yet, its nature, and more especially, its ætiology, are problems awaiting solution. After briefly reviewing the several types of dysentery, the author considers the work of Chantemesse, Widal, Maggiori, Celli, and Fiocca in the search for the causative micro-organism. Particular attention is directed to the rôle of the amœbæ—a variety of which has achieved the distinction of being connected in a causal relation with endemic dysentery.

No bacterial species so far described can claim to stand in a causative relation to this disease, and it is unlikely that any bacteria normal to the intestine or in the environs of man, except where the disease prevails in an endemic form, can be regarded as the probable cause of epidemic dysentery. The relations of sporadic to epidemic dysentery are so remote that it is improbable that the two diseases are produced by the same organic cause. The pathogenic action of the *Amœba coli* in many cases of tropical, and in certain examples of sporadic, dysentery, has not been disproved by the discovery of amœbæ in the normal intestine and in diseases other than dysentery. While amœbæ are commonly present and are concerned in the production of the lesions in subacute and chronic dysentery, they have not, thus far, been shown to be equally connected with the acute dysenteries, even in the tropics. In the former varieties, bacterial association probably has much influence upon the pathogenic powers of the amœbæ.

A series of observations upon the dysenteries prevalent in Japan and the Philippine Islands is also given in this article.

A Contribution to the Study of the Anatomy and Physiology of the Prostate Gland, and a Few Observations on the Phenomenon of Ejaculation. By Dr. George Walker.—The conclusions that may be drawn from this article are, according to the author, the following: (1) the verumontanum does not prevent the entrance of semen into the bladder; (2) the semen is prevented from passing backward into the bladder by the contraction of the so-called sphincter of Henle; (3) the prostatic ducts are so arranged that thev eject their fluid directly into the outpouring testicular secretion, thus producing a homogeneous mixture; (4) the longitudinal fibres of the sphincter membranaceæ urethræ dilate the outer half of the membranous, and a portion of the bulbous, urethra; and by this means draw the semen from the prostatic portion; (5) during the last act of ejaculation, the orifices of the prostatic and ejaculatory ducts are closed, and their respective fluids put on much tension, so that at the moment of relaxation, a sufficient quantity of semen is poured in for the next emission; (6) the sphincter membranaceæ urethræ aids, not only in carrying the semen along the urethra, but also very materially in expelling it.

A Pin Imbedded in the Rectum. By Dr. Otto J. Ramsay.

Glasgow Medical Journal, October, 1900.

Note on the Minute-book (Vol. II) of an Early Glasgow Medico-chirurgical Society. By Dr. William Whitelaw.—The minutes begin in May, 1825, and terminate with March, 1829. "There is an entire absence of bibulosity at all the meetings of the society—no coffee, no annual dinner, no social meeting whatever; all work and no play. There were rigid rules also, one being that a member failing to attend with, or send in, a promised essay, be fined 'unless he had been sick for three days previously.' Fines were also imposed upon members 'for leaving the meeting before the regular business was finished.'"

Two Examples, in Men, of Severe and Prolonged Attacks of Asthma, Associated with, and Apparently Dependent upon, the Presence of Nasal Polypi, Extirpation of which Resulted in Complete Immunity from Asthmatic Symptoms. By Dr. Walker Downie.—The author believes that, in the majority of cases of bronchial asthma complicated with nasal polypi, if the asthma is not relieved by the removal of the new growths, it is because they have not been completely removed. In other words, there are many cases of "so-called" pure bronchial asthma in which the exciting cause lies, unsuspected, within the nares.

Case of Probable Addison's Disease Associated with Leucodermia and Tuberculosis. By R. Barclay Ness, M. A., M. B.—This case is interesting on account of the rarity of the combination, advanced phthisis being exceedingly uncommon in association with Addison's disease.

Notes of Six Cases of Puerperal Eclampsia Treated by Saline Infusions. By Dr. Robert Jardine.—The author's success in these cases and in seventeen previous ones, has made him an advocate of this method of treatment. There is no risk in giving very large infusions, and two or three pints can be easily given under the breast. There are no bad effects locally. Rigid aseptic precautions are necessary.

Case of Cancer of the Body of the Uterus. By Dr. J. Nigel Stark.—Cancer of the body of the uterus is of much less frequent occurrence than cancer of the cervix. Vaginal hysterectomy was performed in this instance, and the patient made an uneventful recovery. The author regards these cases as favorable for operation and also favorable as regards prognosis, but he insists upon the necessity of an early diagnosis.

On the Clinical Examination of the Blood, Especially by Means of Dried and Stained Films. By J. M'Gregor-Robertson, M. A., M. B., and Dr. J. Souttar M'Kendrick.

Miscellaneous.

The Treatment of Cramps of the Legs.—Dr. John McDonald (*Northwestern Lancet,* August 15th), after discussing the causation of cramps, their relation to the valveless condition of the inferior vena cava and consequent great hydraulic pressure, to constipation with its pressure on the iliac veins, and to the gouty diathesis leading to the deposit of urates in the muscles surrounding the congested veins of the legs, says that in the remedial treatment of cramps the attention should be directed mainly toward (1) the relief of constipation; (2) the removal of the uric acid toxine; and (3) the establishment of a better nutrition. It is obvious that for this purpose an effective cholagogue agent is of the first importance to stimulate cellular action of the liver, increase its normal secretions, and initiate peristalsis; and, that, combined with an appropriate uric acid solvent, such as lithia, the circulation of the blood may be quickened, while at the same time its subalkalinity may be neutralized and oxidation increased by the removal of the toxine mainly responsible for the abnormal condition. A more active interchange having thus been established between blood and tissue, the former being better enabled to perform its function of removing poisonous waste, the nutrition of the latter becomes improved and the third indication is fulfilled. The author records a case of obstinate cramps treated successfully on these lines.

A New Method of Catheterization of the Eustachian Tube.—G. Ostino (*Archivio Italiano di Otologia, etc.,* vol. x, No. 1, 1900; *Medical Record,* August 11th), noting that when the letter "e" is pronounced the soft palate raises itself and the Eustachian cushion approaches the median line, suggests the following method: A mark is made on the curve of the catheter 7 centimetres from its tip. The catheter is then passed in the usual manner until the mark is opposite the entrance of the nose, this distance of 7 centimetres being the average distance between the anterior and posterior nares. The patient then phonates "e" (English) in a continuous tone, at which moment the catheter is rotated externally. Ostino asserts that this manœuvre will positively engage the tip of the catheter in the pharyngeal orifice of the tube.

The Value of Antiseptic Nebulæ in Phthisis.—Dr. Homer M. Thomas (*Chicago Medical Recorder,* October) concludes a paper on this subject, as follows:

"The following benefits seem to me established as a reason for the general use of antiseptic nebulæ in the treatment of pulmonary tuberculosis:

1. The respiratory capacity, so limited in tuberculous patients, is increased. 2. The catarrhal condition of the air passages is diminished, thereby aiding a better introduction of air into the lungs. 3. The pulmonary passages are kept in an aseptic condition and the danger of new bacillary invasion minimized. 4. The marked relief of cough and dyspnœa. 5. The alimentary tract is undisturbed by drugs, giving ample opportunity for the increase of vital resistance by suitable diet and constitutional treatment. 6. The treatment of pulmonary tuberculosis by the inhalation of antiseptic nebulæ is rational and practicable."

A Fence Staple in the Larynx; Removal.—Dr. G. V. Woollen (*Medical and Surgical Monitor,* October 15th) records the case of a lad, fourteen years of age, who placed in his mouth a fence staple. He fell from a ladder and swallowed the staple, which was subsequently found to measure one and one-half inches long and was five-eighths of an inch across the tips, which were of equal length. When seen by Dr. Woollen, the patient was suffering but little pain from the presence of the body in his larynx. His voice was lower and husky, but respiration was normal and he had slept well the night before and eaten breakfast. Laryngoscopic examination revealed the staple in the larynx, with one tip, or point, projecting backward through the glottis about an eighth of an inch, and lying in front of the commissure, filling the posterior one-fourth of the glottis. The other part could not be brought into view, being embedded under the epiglottis, in the anterior region of the larynx, and stretching the larynx somewhat antero-posteriorly.

It is probable that the lad was holding the staple in his mouth with points backward, and in his gasping, gulping act as he fell from the ladder, swallowed it, points first, and it caught at the orifice of the œsophagus and toppled into the larynx with the other, rounded end downward. What makes this more probable was that the epiglottis tilted forward more than usual for one so young, and left the laryngeal orifice more open. It is scarcely possible that he could have gulped a mass so large and heavy into the larynx by the air current.

It at first seemed that its removal, though so large, would be comparatively easy, but this feeling soon was dissipated. It only could be done by withdrawing it backward and upward, so as to dislodge the anterior tip of the staple underneath the epiglottis. The difficulty in doing this can only be appreciated by one familiar with the reverse image in the laryngeal mirror, where every movement must be made in the opposite direction to the one indicated in the mirror. Repeated attempts by seizing the posterior tip and lifting backward and upward gave hope of an ultimate removal, but the constant retching, notwithstanding the free local use of cocaine, defeated these efforts. In the final attempt, when Dr. Woollen had become quite sanguine of success, the patient retched and jerked away sufficiently to hook the anterior tip through in front of the epiglottis, into the glosso-epiglottic fold.

The staple was subsequently removed by a high tracheotomy, and the boy went home in a few days all right, having recovered full control of his voice in a day or so.

The Diagnosis of Ectopic Pregnancy before Rupture.—At the meeting of the American Association of Obstetricians and Gynæcologists, held recently at Louisville, Dr. James F. Baldwin, of Columbus, Ohio, gave his views based upon the observation of eleven cases. He said that while there were no pathognomonic symptoms of tubal pregnancy, the following points would usually be found in these cases: The patient gave a history of several years of sterility (many exceptions); she had missed a menstrual period, perhaps two of them (numerous exceptions); she had noticed some unusual pains in the pelvis, which she would probably describe as boring, griping, or colicky in character, these pains being situated usually in the region of an ovary. She had, perhaps, within a few days of the time of consulting her physician, had a more or less irregular hæmorrhage; perhaps, had discharged pieces of membrane which she supposed indicated an abortion, and consulted her physician with the idea that such was the case, owing to the hæmorrhage, pain, and the suspicion of an existing pregnancy. Possibly, however, there had been no suspicion of pregnancy, as the woman had accepted her sterility as incurable and had dismissed from her mind such a possibility.

On making a vaginal examination, the examiner would find upon one side or the other of the uterus, or behind it, a fusiform, quite well-defined cystic tumor about the size of a pullet's egg or a little larger. This tumor would probably be quite tender on pressure, quite symmetrical in outline, and usually was distinctly pulsating. When such a tumor was found in a woman in whom we had reasonable grounds to suspect a pregnancy; when the uterus at the same time was found somewhat enlarged and giving to the touch the sensation of pregnancy, a presumptive diagnosis of tubal pregnancy was warranted, and the matter of an operation should be carefully and without delay considered. To render the early diagnosis of ectopic pregnancy possible, it was necessary for physicians to learn to suspect it, and to examine patients with that suspicion in mind.

In reply to Dr. Edward J. Ill, who asked as to the nature of the contents of the tube, Dr. Baldwin replied that in nearly all of the cases there were some blood-clots, pure and simple.

Religious Suggestion and Education.—At a recent meeting of the *Société d'hypnologie et de psychologie,* M. Binet-Sanglé (*Archives de neurologie,* October) insisted upon the social necessity of introducing into educational establishments the study of comparative hierology and of the laws of religious suggestion. M. Lionel Dauriac said that if such a course was to be followed, to be logical, children must be put on their guard against every kind of suggestion, which was not a matter for therapeutics. He could not commend such intervention, for it predetermined a solution concerning the error resulting from the actual state of our want of knowledge.

Book Notices.

Practical Uranalysis and Urinary Diagnosis. A Manual for the Use of Physicians, Surgeons, and Students. By Charles W. Purdy, LL. D., M. D., Queen's University, Fellow of the Royal College of Physicians and Surgeons, Kingston, etc. Fifth Revised and Enlarged Edition. With Numerous Illustrations, including Photo-engravings and Colored Plates. Philadelphia, New York, and Chicago: F. A. Davis Company, 1900. Pp. xvi-392. [Price, $3.]

The fifth edition of this excellent work presents the same general features as the fourth did. The changes noticed are, fortunately, not numerous or pronounced, the chief ones being a very satisfactory presentation of the subject of centrifugal sedimentation and the technique of urinary microscopy. We have had a very high opinion of Dr. Purdy's work since the appearance of the first edition, and each succeeding edition has served only to make our appreciation the greater.

BOOKS, ETC., RECEIVED.

A Manual of Materia Medica and Pharmacology, Comprising all Organic and Inorganic Drugs which are and have been official in the *United States Pharmacopœia,* together with Important Allied Species and Useful Synthetics. For Students of Medicine, Druggists, Pharmacists and Physicians. By David M. R. Culbreth, M. D., Professor of Botany, Materia Medica and Pharmacognosy in the Maryland College of Pharmacy, Baltimore. New (second) Edition. In one octavo volume of 881 pages, with 464 Illustrations. Cloth, $4.50, *net.* Philadelphia and New York: Lea Brothers & Co., Publishers.

Hand Atlas of Human Anatomy. By Werner Spalteholz, Extraordinary Professor of Anatomy in the University, and Custodian of the Anatomical Museum at Leipzig, with the Advice of Wilhelm His, Professor of Anatomy in the University of Leipzig. Translated from the Third German Edition by Lewellys F. Barker, Professor of Anatomy in the University of Chicago. With a Preface by Franklin P. Mall, Professor of Anatomy in the Johns Hopkins University at Baltimore. Volume I: Bones, Joints, Ligaments. Leipzig: S. Hirzel, 1900. London, Edinburgh, Oxford: Williams & Norgate. New York: G. E. Stechert.

Proceedings and Addresses of the Fourth General Conference of the Health Officers in Michigan. Grand Rapids, Michigan, October Twenty-sixth and Twenty-seventh, 1899. Under the Auspices of State Board of Health. By Authority. 1900.

Superheated Dry Air in the Treatment of Rheumatic and Allied Affections. By Thomas E. Satterthwaite, M. D. New York City. (Reprinted from the *Medical Review of Reviews,* May, 1900.)

Corneal Corpuscular Activity. By Joseph E. Willetts, M. D., Ophthalmic Surgeon to the Eye, Ear, and Throat Hospital, Pittsburg, Pa. (Reprinted from the *Journal of the American Medical Association,* February 17, 1900.)

Mosquitoes and Malaria. Compliments of McKesson & Robbins, New York.

A Contribution to the Pathologic Histology of Hyperkeratosis Lingualis (Hairy Tongue). By J. L. Goddard, A. M., M. D., Boston, Assistant Physician for Diseases of the Throat in the Massachusetts General Hospital and in the Boston Children's Hospital. (Reprinted from the *Annals of Otology, Rhinology and Laryngology,* February, 1900.)

Health of Islington. Quarterly Report, Medical Officer of Health, Second Quarter, 1900.

Der Stand der Volksheilstätten-Bewegung im In- und Auslande. V. Bericht. Herausgegeben von Dr. med. G. Liebe, Braunfels. München, 1900.

L'année chirurgicale. Revue encyclopédique de chirurgie générale et spéciale, publiée sous la direction du docteur A. Depage agrégé a l'université libre de Bruxelles chirurgien des hôpitaux de Bruxelles avec la collaboration de Aïëvoli (Naples), Bayet, Buys, A. Carpart (fils), Casier, Cheval, H. Coppez, Dehersaques, A. Dekeyser, L. Dekeyser, Delstanche, J. Demoor, Derscheid-Delcourt, Dèses (Bruxelles), J. Devos (Gand), Dorff, Ensch, D. François, Gallemaerts, Gallet (Bruxelles), L. Gallez (Châtelet), Geeraerd, Gheury-Levisé, Godart-Danhieux,

J. Godart, Gunzburg, Hannecart, M. Heger, Hennebert, J. Ioteyko (Bruxelles), Janssen (Bois-le-Duc), Kukula (Prague), Labarre, Lamborelle (Bruxelles), Lauwers (Courtrai), Le Clerc-Dandoy, Marcelle, Marique, Moschkowitch, Pechère, Pergens, V. Phillipe, Rouffart, Solé, Stouffs (Bruxelles), Ullmann (Vienne), P. Vandervelde (Bruxelles), V. Van Hassel (Paturages), J. Verhoogen, Verneuil, Walravens (Bruxelles), Ch. Willems (Gand), E. Willems, M. Willems, Wyhauw, (Bruxelles). Secrétaires de la Rédaction: Arthur et Léon Dekeyser. Deuxième année: 1899. Troisième fascicule et Quatrième fascicule. Bruxelles: Henri Lamertin, Libiaire-Editeur. Rue du Marché au Bois, 20. 1900.

A Manual of Hygiene and Sanitation. By Seneca Egbert, A. M., M. D., Professor of Hygiene and Dean of Medico-chirurgical College of Philadelphia, etc. Second Edition, Enlarged and Thoroughly Revised. Illustrated with Seventy-seven Engravings. Philadelphia and New York: Lea Brothers & Company, 1900.

International Clinics. A Quarterly of Clinical Lectures and Especially Prepared Articles on Medicine, Neurology, Surgery, Therapeutics, Obstetrics, Pædiatrics, Pathology, Dermatology, Diseases of the Eye, Ear, Nose and Throat, and other Topics of Interest to Students and Practitioners. By Leading Members of the Medical Profession throughout the World. Edited by Henry W. Cattell, A. M., M. D., Philadelphia, U. S. A., with the Collaboration of John B. Murphy, M. D., of Chicago; Alexander D. Blackader, M. D., of Montreal; H. C. Wood, M. D., of Philadelphia; T. M. Rotch, M. D., of Boston; E. Landolt, M. D., of Paris; Thomas G. Morton, M. D., and Charles H. Reed, M. D., of Philadelphia, with Regular Correspondents in Montreal, London, Paris, Leipsic and Vienna. Volume III, Tenth Series, 1900. Philadelphia: J. B. Lippincott Company, 1900.

Studies in the Psychology of Sex. The Revolution of Modesty; The Phenomena of Sexual Periodicity; Auto-erotism. By Havelock Ellis. Philadelphia, New York, Chicago: The F. A. Davis Company, Publishers, 1900.

Malaria according to the New Researches. By Professor Angelo Celli, Director of the Institute of Hygiene, University of Rome. Translated from the Second Italian Edition by John Joseph Eyre, M. R. C. P., L. R. C. S. Ire., D. P. H. Cambridge, with an Introduction by Dr. Patrick Manson, Medical Adviser to the Colonial Office, with Maps and Illustrations. London (39 Paternoster Row), New York and Bombay: Longmans, Green & Company, 1900.

Cancer of the Stomach. A Clinical Study. By William Osler, M.D., and Thomas McCrae, M. B. (Tor.), of the Johns Hopkins Hospital, Baltimore. With Illustrations. Philadelphia: P. Blakiston's Son & Co., 1012 Walnut street. 1900.

Therapeutisches Vademecum der Haut- and Geschlechtskrankheiten für praktische Aerzte. Von Dr. Reinhold Ledermann, Specialarzt für Hautkrankheiten in Berlin. Zweite durchgesehene und erweiterte Auflage. Berlin, W. 35. Verlag von Oscar Coblentz, 1901.

Transactions of the Grant College Medical Society, Bombay, from January to December, 1899.

Transactions of the American Otological Society, Thirty-third Annual Meeting, Washington, D. C., May 1, 1900. Vol. VII, Part 3. Published by the Society; 1900.

Biennial Report of the Department of Health of the City of Chicago for the Years 1897 and 1898. Arthur R. Reynolds, M. D., Commissioner of Health.

Eleventh Report of the State Board of Health of the State of Maine for the Two Years Ending December 31, 1899, 1898-1899. Augusta: *Kennebec Journal* Print, 1900.

Retinitis Albuminurica, with Report of Cases. By Francis W. Alter, M. D., Toledo, Ohio, late Resident Surgeon New Amsterdam Eye and Ear Hospital, New York City, etc. (Reprinted from the *American Compend*, July, 1900.)

Seven Brief Medical Papers. Floating Spleen, Fatty Cirrhosis of the Liver, Amyloid Degeneration of the Kidney, Typhoid Fever, with Complications; Diagnosis in the Light of a Necropsy, Empyema, Infectious Diseases. By Stephen Smith Burt, A. M., M. D., Professor of Physical Diagnosis and Clinical Medicine, New York Post-graduate Medical School, etc. (Reprinted from the *Post-graduate,* September, 1900.)

Purpura Hæmorrhagica, or Morbus Maculosus of Werlhof. By Stephen Smith Burt, A. M., M. D. (Reprinted from the *Boston Medical and Surgical Journal,* November 1, 1900.)

Report of a Case of Resection of the Liver for the Removal of a Neoplasm, with a Table of Seventy-six Cases of Resection of the Liver for Hepatic Tumors. By William Williams Keen, M. D., of Philadelphia, Professor of the Principles of Surgery and of Clinical Surgery in the Jefferson Medical College. (Reprinted from the *Annals of Surgery,* September, 1899.)

A Case of Appendicitis in which the Appendix became Permanently Soldered to the Bladder, Like a Third Ureter, Producing a Urinary Fæcal Fistula. By William Williams Keen, M. D., of Philadelphia. From the *Transactions of the American Surgical Association, 1898.*

I. A Bullet in the Popliteal Space; 11. A Case of Dilated Œsophagus.—Two Cases Showing the Value of the X-rays and at the same time that in the First Case they were Misleading. By William Williams Keen, M. D., LL. D., of Philadelphia. (Reprinted from the special X-ray number of the *Philadelphia Medical Journal,* Janary 6, 1900.)

The President's Address, Delivered at the Forty-first Annual Meeting of the American Medical Association, Held at Atlantic City, New Jersey, June 5-8, 1900. William Williams Keen, M. D., LL. D., Philadelphia.

The Surgical Use of Celluloid Thread. By William Williams Keen, M. D., LL. D., of Philadelphia, and Randle C. Rosenberger, M. D., Demonstrator of Bacteriology and Normal Histology, Jefferson Medical College. (Reprinted from the *Philadelphia Medical Journal,* March 10, 1900.)

Surgical Treatment of Perforation of the Bowel in Typhoid Fever, with a Table of 158 Cases. William Williams Keen, M. D., LL. D., of Philadelphia.

The Ideal Physician. By William Williams Keen, M. D., LL. D., of Philadelphia.

Two Unusual Cases of Surgery of the Trachea. By W. S. Jones, M. D., and William Williams Keen, M. D., LL. D., of Philadelphia. (From *Philadelphia Medical Journal,* June 10, 1899.)

Miscellany.

A Word for the Barmaid in Pioneer Settlements.—Dr. Robert Ramsey (*Australasian Medical Gazette,* August 20th), in an interesting paper on Typhoid Fever and its Treatment on the Gold Fields, at Coolgardie, says:

"For about eighteen months we all lived much as a large congeries of men *will* live, where there are no women, but at last, the pioneers of their sex, the barmaids, began to arrive, and at once affairs, so far as our sick were concerned, betokened a revolution. The hospital was provided with sheets, pillow-slips, and dainty towels, and these girls would go, after working hard all day, to sit up and feed, with what dainties they could gather, the worst cases in stifling tents, with practically nothing to help them but their womanly courage. After the barmaids came the nurses, and the reign of my orderlies was over, and I grieved sadly."

"Render unto Cæsar," etc.—The *Charlotte Medical Journal* for September quotes from the *Southern Practitioner* for July, the following story:

The husband of a Christian Scientist teacher, lately married, that did not believe in doctors or sickness, called upon a physician one cold, stormy night in January. He was in a great hurry.

"What is the matter?" asked the doctor, sticking his night-cap out at the door.

"Oh," said the man, in an anxious tone, "my wife is very sick, and wants you to come at once."

"She sick?" answered the doctor in surprise; "why, man, she has turned half this town into the belief that there is no such thing as pain."

"But it's different now," replied the man. "We're—that is, you know—well, she's going, or rather, she expects—we've been calculating for some time to have a—a—bab—yes, a chil—a boy or a girl. It's—it will, or would be our first, and we thought you'd better be around."

"Well, my dear man," said the doctor, "tell your wife that I am sorry she has so far forgotten her calling as to give in to the sin of a fancied pain or two. These twinges that come with such clock-like regularity are nothing but the timed temptations of Satan. Tell her that there is no such thing as pain; that she isn't going to have a baby; that she isn't a woman, but the ghost of Euripides; that she isn't married. Tell her that I am not a doctor, and never was, and that this is one of the loveliest nights in June. Good-night, sir."

Dr. Leonard Wood's Views on Cuba.—General Leonard Wood, who, it will be remembered, was a surgeon in the regular army at the outbreak of the war with Spain, and is now acting as military governor of Cuba, has an article on Cuba in a recent number of *Collier's Weekly*, in the course of which he refers to the climate of Cuba in the following words:

"As to the climatic conditions existing in Cuba, it may be safely said that one can live there with as much comfort as in any of our Southern States, and it is believed that as the reconstruction and development of the island progresses the prevalent diseases will largely disappear." Concerning yellow fever, Dr. Wood says: "Yellow fever, of which so much is said, is not, after all, so much to be feared as is popularly supposed, and we have every reason to hope that in a few years, with careful attention to sanitation, and careful isolation of the diseased, Cuba can be made as safe for the European as Jamaica is to-day. It cannot be stamped out at once, nor is its removal the work of a single year. The presence of yellow fever this year in Cuba, and especially in Havana, is due almost entirely to the number of Spanish immigrants who are arriving on every steamer, nearly all of them being non-immunes. The quarantine service," says Dr. Wood, "is under the immediate control of our own Marine Hospital surgeons, who are at present attached to the island government. Associated with them are many Cubans. This service is highly efficient, and great credit is due for the manner in which the work is conducted."

An Association for the Protection of Medical Interests in Germany.—On September 4th an association for the protection of medical interests was founded in Ludwigshaven on the Rhine, Germany. The association was founded with a view to promoting the material interests of the medical profession. It is proposed to bring about a thorough and solid organization of the medical profession throughout Germany, and to collect through its agency a considerable sum of money to be used in furthering the business interests of practitioners of medicine by means of restrictive legislation. The president of the Ludwigshaven association, Dr. F. Scherer, has published an appeal to the members of the medical profession throughout Germany to form local organizations for self-protection, with a view to the eventual organization of a central association composed of delegates from local bodies which could be taken as fairly representative of the entire body of German physicians and which could formulate a definite programme for action.

The call cites as proof of the need for such an organization the growing frequency of the appearance in the medical press of communications setting forth the evil conditions surrounding the practice of medicine in Germany, for which there seems at present no prospect of relief. The new law relating to insurance against sickness bears with particular hardship on the physician, and its passage has apparently brought matters to a focus, as the appeal from the Ludwigshaven association appears simultaneously with one from the officers of an association of the physicians of Germany for the protection of their business interests, which is referred to elsewhere in this issue.

The Craig Colony Prize (for 1901) for Original Research in Epilepsy.—Dr. Frederick Peterson, president of the Board of Managers of the Craig Colony for Epileptics, at Sonyea, N. Y., offers a prize of $200 for the best original unpublished contribution to the pathology and treatment of epilepsy. Originality is the main condition. All manuscript should be submitted in English. The prize is open to universal competition. Each essay must be accompanied by a sealed envelope containing the name and address of the author and bearing upon the outside a motto or device, which is to be inscribed also upon the essay. All papers received will be submitted to a committee consisting of three members of the New York Neurological Society, and the award will be made upon its recommendation at the annual meeting of the Board of Managers of the Craig Colony, on October 8, 1901. Manuscripts should be sent to Dr. Frederick Peterson, 4 West Fiftieth street, New York, on or before September 30, 1901. The successful essay becomes the property of the Craig Colony and will be published in its annual report.

Concerning the prize for the year 1900, the committee, consisting of Dr. George W. Jacoby, Dr. Pearce Bailey, and Dr. Ira Van Gieson, reports that it cannot recommend that the prize be awarded. "This verdict is a source of special regret," the report continues, "as the same committee arrived at the same conclusion in regard to the prize of 1899. This year but one essay was submitted. In view of its failure for two successive years to recommend the awarding of the prize, your committee feels called upon to state what, in its opinion, is necessary for an essay to be considered deserving. By the terms governing the competition, original research is a primary requisite. Research as to the pathological anatomy, the chemistry, the symptomatology, the causation, the treatment, or the nature of epilepsy, as to the position occupied by epilepsy in regard to social economics, or, in short, anything which will advance our knowledge of the disease, is what the prize calls for. It is, of course, necessary that the facts advanced be presented in a way to convince an unbiased critic of their accuracy, and that the conclusions drawn be justified by the facts. No essay submitted either this year or last year has attained this standard. In view of the fertility of the field, of the constantly increasing number of investigators, and of the present perfected facilities of research, your committee believes that the prize having failed to attract more meritorious contributions is to be explained by its not having been sufficiently called to the attention of original workers. It would recommend, therefore, that for the ensuing year no pains be spared to have the existence of the Craig Colony Prize made known to all qualified to compete for it."

The late Dr. Landon Carter Gray.—At a meeting of the Medical Society of the County of New York, held on September 24th, Dr. William B. Pritchard read the following memorial of Dr. Gray:

The custom of honoring the memory of the illustrious dead is based upon time-honored precedent among all peoples from the very inception of human history. The earliest records of mankind, regardless of race or degree of so-called civilization, consist in large measure in such memorials. The obelisks of old Egypt, the sarcophagi of ancient Rome and Greece, the Biblical annals of old Judea, were alike intended to subserve chiefly one and the same purpose. The salient data of ancient history are gathered from such sources. Through mediæval time, with all its chaos; through the Renaissance, and down through modern times to the very threshold of the future, the custom still prevails. Such persistent vitality makes evident in itself an eternal fitness. The beneficent influence of example alone, disregarding the factor of personal justice which demands the reward of tribute for honors earned, provides a sufficient motive for a custom which reflects credit no less upon those who pay than upon those who receive. Among medical men it has seemed to me especially fitting that the dead who have lived well should not be forgotten of their own. Isolated as we are by the peculiarly personal atmosphere which surrounds the physician's life, the record of our deeds is lost if entrusted to outside interests for its preservation. Individually, we are factors of importance and receive our just meed of consideration within the limited sphere of our personal relationship to a personal clientèle. Collectively, we are disregarded as factors of importance in the more conspicuously material and obtrusive interests of the nation. Exceptionally, some of us are bigger than our calling and burst through the shell of a narrow environment into the atmosphere and the affairs of the outer world. There is one such man to a century, perhaps, and it takes until the next century to place him. It was nearly a hundred years from Benjamin Rush to Austin Flint. Even in the instances cited, the niche in Fame's gallery occupied by either would have been smaller and less conspicuous but for the jealous watch of medical confrères. To its credit be it said, our society has always held its duty to its dead a binding obligation, and to those upon whom a conspicuous part has fallen in the payment of such obligations such a duty has been a labor of love. I assure you the present is no exception. The subject of this sketch was known to all of you with varying degrees of intimacy. I profess, with jealous affection, to have known him best. First as his pupil, then as assistant, finally as friend and associate, I stood at his side for twelve years in a relationship most intimate, the memory of which remains as the highest tribute I could pay his character and personality. Much of the hesitancy I felt in accepting the request, made of me by our honored president, that I prepare this memorial was due to the fear that the element of personal affection and esteem entertained should bias the calmer judgment and more critical acumen so desirable in any estimate of character. I believe I have discounted such fear in the facts and the estimate herewith presented.

Landon Carter Gray, whose death occurred on May 8th, last, afforded in peculiar degree in the record of his life a notable example in results and honors attained of what can be accomplished within the compass of a few short years. Born in New York city on April 3, 1850, he had barely passed his fiftieth birthday at the time of his death. To those to whom the heritage of good birth is significant in its bearing upon the development of the individual it is of interest to note that Dr. Gray counted on both sides a long line of honorable and distinguished ancestors. His father, a lawyer of prominence and ability, was directly descended from "King" Carter, of Shirley and Westover, two of the most famous colonial estates of tidewater Virginia. His mother, a Miss Ireland, of a well-known New York family, was a descendant of the Swedish consul Jans, progenitor of the famous Anneke Jans heirs. Dr. Gray's boyhood days were passed at his father's home on Staten Island, where he received his primary education, afterward matriculating at Columbia College. He had scarcely completed his junior year, however, when he was compelled to abandon his studies on account of progressively failing vision following an attack of scarlet fever. The defect of vision was, by the way, of such pronounced character and degree as to render one eye practically useless through life, a statement which will doubtless surprise many who knew him intimately. The same illness appreciably affected his hearing permanently, and to a degree which often made it a source of great personal annoyance to him. After leaving Columbia he went to Europe, where, his eyesight improving, he entered the University of Heidelberg, and remained there as a student for three years. Returning to New York, he began the study of medicine, graduating from Bellevue in 1873. He was immediately offered, and accepted, the position of assistant to Dr. James R. Wood, with whom he remained, however, only a year or two, displaying no special aptitude or inclination for surgery. Immediately after graduating he married Miss Margarett E. Finn, the daughter of a prominent and wealthy citizen of St. Louis. He began practice in this city on Park avenue, near Fortieth street, but within a year or two moved his residence to Brooklyn, where almost immediately he began the special study of mental and nervous diseases. It was during these early years in Brooklyn that he passed through the fiery furnace of financial adversity. Reared in an atmosphere of affluence and luxury and of lavish hospitality, he was the less prepared for the radical change which his father's total loss of fortune made necessary in his mode of life. In connection with this incident in his life it would be less than just to the memory of the man and to the dominant characteristic of his private life not to make mention of the fact that without the slightest legal obligation, prompted only by motives of the nicest honor, he voluntarily assumed and afterward paid out of his own personal earnings more than $30,000 in settlement of the indebtedness of his father's estate. The stimulus of necessity proved an added spur to an already active ambition, with the result that in less than ten years he had not only reached the topmost round in the city of his labors, but had won for himself a name and repute extending beyond the borders of his country. At the age of thirty-two he was filling with distinction the chair of neurology in the Long Island College Hospital. A few years later he resigned to accept the professorship of mental and nervous diseases at the New York Polyclinic, a school for post-graduate instruction, of which he was one of the founders. He returned to New York in 1886, where he continued actively at work up to within two or three months of his death, persisting in a determination to continue in harness in spite of a constant distress of mind and body incidental to the disease which caused his death, which disease (a chronic nephritis with cardiac complications) was existent and known to him for several years.

The medical history of his later years is not without interest, especially in its bearing upon certain latent and manifest elements of the man's character. In 1890 he was in the full vigor of a healthy manhood, handicapped only by an over-cultured mentality. In December, 1890, he had influenza, but the attack was light and unattended with any complication. In 1892 he was again a victim, but again escaped any sequelæ of importance. In 1894 a third attack was complicated with pneumonia, and following it subtle changes were manifest in the circulatory apparatus, indicating beginning arteriosclerosis. In 1897 a fourth attack of influenza brought to light an active endocarditis. This was the manifest beginning of the end, and every day thereafter marked a nearer and nearer approach to the inevitable. The year following, an embolus blocking one of the middle cerebral vessels resulted in partial hemiplegia, never severe, but persistent, none the less, up to his death. Albuminuria with casts, with all the dreadful portent which such a combination means, appeared soon after and never thereafter disappeared. The full significance of these many signs were interpreted with a painfully accurate intelligence, but the victim never faltered. Offered the alternative, easily available, of prolongation of life with inaction and retirement, he chose deliberately to die in harness and kept his hand to the ploughshare to the last. I was his confidant, and I alone can bear witness to the heroism, the stoicism, putting to shame the Spartan of tradition, which upheld him in a martyrdom the like of which I hope never to see or know again.

His energy and worth were not unrewarded. Honors fell full upon him. His titles were many. He was visiting neurologist to St. Mary's Hospital, Brooklyn; consulting neurologist to the Hospital for the Ruptured and Crippled; president of the American Neurological Society, of the New York Neurological Society, of the Neurological Section of the New York Academy of Medicine, of the Society of Medical Jurisprudence, and of the Medical Society of the County of New York, besides holding honorary membership in many State and foreign societies. For nine years he held the position of chairman of the Executive Committee of the Congress of American Physicians and Surgeons, a most distinguished honor.

Dr. Gray was the author of many valuable contributions to neurology and psychiatry. He discovered and demonstrated the value of surface variations in the temperature of the scalp as a means of diagnosis in certain intracranial affections. He discovered and described a symptomatic entity among the convulsive disorders akin to chorea, to which he gave the name palmus. Especially noteworthy and available were his original observations and published teachings upon syphilis of the nervous system, melancholia, and the muscular atrophies. The crowning accomplishment, however, of his literary career is a treatise on mental and nervous diseases which has passed through several editions and ranks as a most valuable and authoritative text-book on the subject.

In no sphere of professional activity, however, did Dr. Gray attain to more deserved distinction than in that of the medico-legal expert. His opinions and advice were in constant demand, and he commanded a respect and confidence which cannot be better illustrated than by a quotation from a tribute by one of New York's ablest jurists, a judge for many years of one of our highest courts, published in the New York *Sun* for May 14th: "Dr. Landon Carter Gray had also achieved notable distinction in the field of legal medicine. In giving expert evidence he was the very model of what a medical witness ought to be, and his intellectual honesty would not suffer him to be biased in favor of the litigant or lawyer who sought his opinion. This was so well known that distinguished counsel often consulted him in regard to medical matters which never found their way into court, simply in order to satisfy themselves as to the true character and extent of the injuries or maladies of which their clients complained."

Passing from the public to the personal man, the problem becomes more difficult. Dr. Gray was a many-sided man and, like all great men, he had his angles. Of handsome physique, impressive presence, and somewhat imperious manner, an acquaintance short of intimacy left often an impression less than just. To those who knew him no underestimate was possible. Of unswerving truthfulness, keen to exquisite nicety in his appreciation of the right, kindly and generous in every instinct, he was a type of the loyal friend and the generous foe. To him as to others of like type the cardinal crime was ingratitude, and to repay an obligation with interest was with him instinctive. He was an intellectual gladiator, and was never oblivious to the gauntlet thrown down before him. The atmosphere of the intellectual arena was as sweet incense, and to this measuring of wits he went as to a feast. He never acknowledged defeat, and yet he bore no malice from disaster accomplished by fair means. He was bold to audacity. To the writer he once said: "I always take the odd chance. In all my life I have never walked or crawled; I have plunged." His sense of humor was always keen, his stories were always apt. As an after-dinner speaker he was often in demand. As a teacher he was peculiarly coherent and practical. He possessed in extraordinary degree the quality of adaptability, which faculty made him preeminent as an instructor. He was a most voracious reader and, therefore, a "full man." His three years' residence abroad, coupled perhaps with natural aptitude, made him an accomplished linguist. One special quality he possessed in most phenomenal degree—a quality which has made the military chiefs of history—the faculty for organization. Of a child-like type of credulity apparently, he was accurate in his estimate of men and kept constantly attached to him by obligations of interest and gratitude men who not only served his purposes, but justified his estimates in personal successes which cast a reflected glory, which was his. In this he suggested the elder Charcot. Of those who, in his special field, stand highest in New York to-day, not one but owes some tribute to his memory.

THE NEW YORK MEDICAL JOURNAL, DECEMBER 1, 1900.

Original Communications.

PRACTICAL MEDICINE AND LABORATORY RESEARCH.

By BEVERLEY ROBINSON, M. D.,
NEW YORK.

EVERY day the importance of the microscope in practical medicine is evident. This has been a truism for many years. Its widespread acceptance has increased and not diminished. To the use of the microscope chemical research must be added. And this knowledge, also, has become more essential to the physician. The necessity of microscopical investigation allied with chemical research is abundantly shown by the laboratories added to our medical schools and also to our hospitals. Without them neither schools nor hospitals should be held in proper esteem. In a similar measure almost no student nowadays is properly qualified unless he has received from and profited by the advantages offered by his teachers and the laboratories devoted to these researches. And yet, as science advances, or changes—because much that seems advance may merely be change—the medical student or hospital interne cannot, as a rule, give the time necessary to become thoroughly proficient in advanced knowledge and technique.

What is true of the hospital interne is also evident usually about the young man who has completed the hospital curriculum. He has a living to make, patients to see, or be on hand if calls come. He cannot absent himself hours at a time to do laboratory work. If he absents himself from his office, it is often thought wiser for him to do dispensary work, and thus keep in active touch with the even more practical work of medicine than that of the laboratory. Of course there are exceptions here and there, and some men who have ignored dispensaries, or hospital work in an out-patient department, have become later better-trained and more successful practitioners. Indeed, I am of the opinion that, if one at present has to choose between dispensary and laboratory work, the latter is the more judicious selection. It may here be said that a young fellow may continue his microscopical and chemical work in his private office. So, indeed, in a few rare examples, it can be done successfully. In those instances where one's means are limited, the necessary outfit as regards place and apparatus cannot be had at the proper time. Again, unless one is attached in a working capacity to a dispensary or hospital, he cannot easily procure the live material essential to carrying on investigations and acquiring perfect knowledge. So soon as practice grows and patients are more numerous, the exactions upon one's time are greater and there are few spare hours indeed for scientific research. Knowing this, feeling how impossible it is for him to devote the necessary time and energy to laboratory work, the practitioner looks naturally for help to some thoroughly equipped man in pathological training lately graduated, or goes in quest of it to some private hospital, college, or city laboratory. In one of these he can now have sputum, blood, urine, fæces, stomach contents, etc., carefully and accurately examined and reported on to him within twenty-four or forty-eight hours for a fair pecuniary remuneration. The reports which are returned may be positive, negative, or doubtful. If in the former category, they frequently determine his conduct. If they are negative, he should be guided by the clinical evidences in the case. If they are doubtful, he is obliged to recur to these examinations until some positive or negative conclusion can be reached. Meanwhile, both he and his patients (relatives or friends) remain uncertain and troubled as to the outcome of further reports. It seems as though it were already quite clear that in all these laboratory investigations only the best work should be relied upon. Too many and great interests are often involved to allow a tyro to give his *ipse dixit* which shall be authoritative. Of course, in many instances, it is not required to be more than ordinarily expert. Very many hospital internes and junior practitioners can stain and find tubercle bacilli, make differential blood examinations in chlorosis, pernicious anæmia, and leucocythæmia, cultivate the Loeffler bacillus, and make the Widal test in suspected typhoid fever. And, yet, when very important personal and family interests depend upon the results of these examinations, the *best, most expert* examination upon which to base in a proper measure our deductions is none too good.

Bacteriological findings, like those of physical diagnosis, in obscure cases, are difficult and uncertain many times for the man of most accurate technical knowledge and widest experience.

In the instances where by reason, perhaps, of the presence of definite signs and symptoms of disease, detected by other means, the practitioner is anxious or disturbed, the microscope is not infrequently at fault and we are left, even after its careful and skilled use, in a more doubtful state of mind. Should we ignore or abandon its use on this account? Certainly not. We should, however, not underestimate the great value of the clinical teaching of the past, which will ever remain true, no matter what our present and future advances may become in what is now regarded as more scientific research.

Here, it seems to me, we may rightly ask, Where are we to-day?

Not long ago the whole medical and surgical world had but one tenet of belief, viz., that the microbic theory of many acute, and certainly all contagious and infectious diseases, explained their causation fully and satisfactorily. Is that still true? In my presidential address, delivered in May, 1899, before the American Climatological Association, I endeavored to show that such was not my own belief; indeed, that more than twenty years ago I had held somewhat contrary views, and continued to hold them. The living organisms that often characterize and may confirm our diagnosis, are not causative *invariably;* on the contrary, occasionally they merely seem to be a *result* of certain conditions about which our knowledge is yet very uncertain.

In a very suggestive article published as an editorial in the *New York Medical Journal* for November 11, 1899, entitled A Plea for Greater Breadth of View, reference is made to two able addresses delivered by Dr. Bantock and Dr. Wilson in England during the spring and summer of 1899, in which these views are ably advocated.

The sooner we recognize, as I believe—and these addresses corroborate such a judgment—"that the microorganisms whose constant presence has led to their being regarded as specific causes of disease are associated with the disease only because the disease provides the conditions for their free development; in other words, their presence is the result, not the cause, of disease"—the better it will be for the peace and well-being of many who are now afraid almost to breathe, and even to live, on account of the omnipresent "unconditional" microbe. For, as we know, living organisms of different kinds may be present frequently and yet not occasion any appreciable symptoms. This is true of the bacilli of diphtheria, of pneumonia, of tuberculosis. As regards their virulence, this we recognize is most variable in degree, even when it exists. Given all the physical properties of a particular microbe, its activity may be absolutely different. Clearly, therefore, it must be either in the conditions which attach themselves directly to the organism or prevail in its habitat, or the soil which breeds it, or in which it is lodged, which makes relative or absolute differences between the character and amount of toxines secreted by it or emanating from it.

These are mental convictions based upon my own study and observations, and also upon my study of the records of many of the world's best-known scientists and most earnest workers in clinical medicine.

Sir R. Douglas Powell* writes in this connection: "It is not, however, enough to have the poison germ on the one hand to acquire the disease on the other; there are intermediate or antecedent circumstances of dosage, acquired susceptibility, or that subtle malformation of tissue in certain organs which is inherited and renders them weak in resistance to certain forms of attack."

It is such wise and far-reaching words as these which will prevent ultra views being continued and carried out, pertaining so closely to the daily life and happiness of a large portion of the human race. It is only a year or more since it was proposed to banish the poor sufferer from tuberculosis from entrance within the boundaries of one of our far Western States. Fortunately for them and all of us, such an extreme and unjustifiable measure was soon absolutely interdicted by the vote of those who should have authority and who, *grâce à Dieu,* had heart and brain sufficient to meet successfully the narrow, foolish views which were on the eve, perhaps, of prevailing.

In speaking of this subject, Dr. Powell again wisely writes: "To set heredity at naught, to regard climatic considerations as of no importance, and to state that the disease is always acquired by direct contagion or infection, is, in my opinion, to ignore much that is true and to magnify that which should be carefully guarded from exaggeration." And a little farther on, he writes: "We are all familiar with circumstances connected with the incidence of certain cases of tuberculosis which render it probable that they have been acquired by indirect contagion through the contaminated dust of dirty rooms, and know that under certain conditions of stagnant, dark surroundings a patient with advanced phthisis of unclean habits would cause local danger of tuberculous infection to his attendants and friends and future occupants of the room. But, except under such and similar almost experimental conditions, the evidence of the contagiousness of phthisis is extremely slender.* . . . While, therefore, on the one hand, advising every ordinary measure of cleanliness, avoidance of dust, and proper disposal and disinfection of sputa, we may, and indeed must, avoid all exaggerated statements calculated to alarm the public as to the contagion of phthisis."

. . . .

"In my belief there is a mephitic laboratory beyond our special control, yielding organisms ever ready to attack the unwary and those whose vitality is depressed."

To what does this last citation point unless to the soil, the individual, the conditions upon which the microbes become grafted and exercise their baleful effects—provided, of course, that certain preventable and ambient surroundings are allowed to exist and continue their pernicious influence?

"General sanitation and cleanliness is our first line of defense against them all. Wherever the conditions of insanitation, dampness, deficient sunlight, and the prevalence of favoring diseases are present, there aggressive activity may be again looked for."

All the foregoing goes to prove—not that laboratory work and its discoveries should be put aside, but simply that they should find their proper place, alongside of and working as it were together with clinical findings from other and numerous sources.

Let me turn for a moment to diphtheria. I have treated diphtheria in a grave form where all clinical evidences pointed to the disease and where antitoxine apparently saved life, and yet laboratory research for the Loefller bacillus remained negative. I have treated another case in which the clinical manifestations of disease were of the mildest form, and yet the bacteriological finding pronounced it to be one of diphtheria, virulent in nature. Manifestly, if I pin my faith on germ culture and inoculation in the first instance, I may lose a valuable life. Relying upon the laboratory report in the second case, I may possibly have guarded others from an attack of a serious affection, and assuredly I have occasioned a great deal of trouble, anxiety, and expense by my more than careful sanitary precautions.

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* *Lancet*, August 5, 1899, p. 322.

* *Loc. cit.*, p. 325.

I have had my reasonable doubts more than once as to the time and care, as to the skill and knowledge employed in making laboratory reports. Of one thing I am quite sure, that in any important case the knowledge and technique of the observer must be *above cavil.* We, the older practitioners, and the busier ones, perhaps, cannot and should not be compelled to abide by *ex cathedra* judgments unless they are from every point of view the most reliable and trustworthy. How often do we treat cases of evident pulmonary tuberculosis in which the sputa have not during many weeks revealed the bacilli of tuberculosis, despite very careful and repeated examinations! Again, the general symptoms are frequently very mild and seemingly of little moment until the microscope sounds the terrible warning that "bacilli" are found. I have treated more than one such case for months and years. The bacilli could usually be found in smaller or larger numbers, and yet the disease did not seem to progress at all, and occasionally the symptoms were so slight that, except for the revelations from the stained slide, no anxiety could possibly be felt for the patient. I have treated more than one case of continuous fever in which almost every symptom pointed to it, and Widal's test was negative. Cases of undoubted malarial poisoning of mild type are frequently present, although no malarial organism has ever been discovered.

I might continue to multiply examples drawn from experience, either my own or that of others. Suffice it to add that the time has come when we should cry a halt to too exclusive a theory of disease. The germ theory of it as understood up to the present time is mighty and has prevailed. I, for one, do not wish to ignore it or lessen at all its legitimate and great conclusions. I do wish, however, to affirm that it is not universally applicable, as it seems to me, and at all events there are "fruitful side-lights" bearing upon "the ætiology and prophylaxis of disease which demand our most careful investigation."

What should always be recognized and considered is that behind the disease, and far more important usually, is the patient. The clinician should always rank foremost. To him finally the bacteriologist and chemist should always report their findings. It is he who should settle the importance they have and the treatment, prophylactic and curative, which should be adopted. Let every health board take cognizance of this, and then the general practitioner—well informed and broad-minded—will secure again the first rank, which almost invariably belongs to him *de jure,* if not *de facto.*

If not settled in this way definitely, at least let there be informal and friendly personal consultation between the representative of the board of health and the family adviser before the homes and personal rights of patients are controlled absolutely for their own good and the public welfare.

In a way, I wish for each family or individual an analogous conduct to that we have lately seen when the bubonic plague threatened our city of New York. Immediately when the disease was thought to be here and immense property interests and the health of all our citizens were at stake, a meeting of the advisory council of the board of health was called, and the two together determined what was best to do, to protect all. So let there be, when contagious or infectious disease invades a home, mutual understanding through personal contact before onerous and perhaps unnecessary restrictive measures are determined upon or carried out.

If a bacillus is present in the mouth or throat which is said to be that of diphtheria, and if at the same time there are morbid symptoms of its presence, isolate the patient and protect others. But if the bacillus is there without symptoms, does it not seem more than we can reasonably and ultimately uphold that precautions should be taken against which common sense revolts and wider, more accurate scientific acquirement tends to disprove?

"The whole history of the tubercle bacillus ought to have taught us caution. It is only after the tubercles have formed, matured, and broken that bacilli are discovered in the sputum; they are often not seen for months or even years, in fact, not until the soil and conditions are favorable for growth. . . . That specific micro-organisms are associated with certain diseases is indisputable, that they or their products will reproduce the same disease, in other words, will 'breed true,' is equally undeniable, but that they are the *original* primal cause is a very different matter."* It is a good working theory, as is abundantly shown, but it is "not proven" in all cases. It is one which should be received, therefore, with limitations.

"I am not ignoring," again writes the late Dr. Fitzgerald, "or depreciating the enormous, the brilliant services which bacteriology has rendered to science: I am merely pleading for a more rational view, a dispassionate judgment, a calm, judicial attitude, relegating it to its proper sphere as the handmaid, not the master and leader, of science, always remembering that its seductive brilliance should not blind us to other and more prosaic aspects of disease."

The German Commission for the Study of Cancer has been enlarged by the addition of a number of well-known specialists, including Dr. Fielder, of Dresden; Dr. von Graskey, of Munich; Dr. Krieger, of Strassburg; Dr. Neidhart, of Darmstadt; Dr. Krobler, of Griefswald, and Dr. Löbker, of Bochum. A message of congratulation has been received from Dr. Roswell Park, director of the Institute for the Study of Cancer at the University of Buffalo, who promises his active cooperation in the work of the commission. The preliminary work is now under way and the printed matter is being prepared to provide for a simultaneous census of all the cases of cancer in Germany on a certain day. To this end a quarter of a million reports are expected to be received.

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* *Lancet*, February 4, 1899, p. 328.

REPORT OF A CASE OF EMPYEMA OF THE ANTRUM OF HIGHMORE OF FIFTEEN YEARS' DURATION, DUE TO A FOREIGN BODY; OPERATION; RECOVERY.*

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CONSULTING AURAL SURGEON TO THE WILLARD PARKER AND RIVERSIDE HOSPITALS; ASSISTANT SURGEON TO THE NEW YORK EYE AND EAR INFIRMARY AND THE MANHATTAN EYE AND EAR HOSPITAL.

Mrs. S. C., thirty years of age, consulted me September 1, 1898, presenting the following history:

In March, 1884, while having a right upper molar extracted, the tooth was broken and the jaw splintered. In rinsing the mouth immediately afterward, fluid escaped from the right nostril. A few days later, a purulent discharge began from the alveolar wound. The dentist was again consulted, who removed several small spicula of bone, after which the wound closed. A week later, a purulent nasal discharge made its appearance. This gradually grew more and more profuse and very offensive in odor, and the patient's general health became greatly impaired. In August of the following year, a hole was drilled into the antrum through the alveolus and daily irrigations practised for six weeks, when the discharge stopped. In a short time, however, it began again. Another specialist was consulted, who inserted a silver drainage tube and continued the irrigations. This soon proved so irritating, however, that the patient removed it of her own accord, and, obtaining a syringe which she could use herself, for a period of more than five years irrigated the antrum daily through the opening which remained. During this period the discharge was never very offensive, though at times quite profuse.

In February, 1900, the discharge not having been present for a month, the alveolar opening was allowed to close. From 1890 to 1895, at intervals of from three to four months, an offensive discharge from the ostium accompanied by a dull pain over the antrum and by frequent headaches lasting from two to six weeks, occurred. The patient attributed these attacks to "having caught a cold." At no time was she free from an offensive odor in the right nostril, and a sensation of pressure and dull pain at the ostium.

In 1895, owing to an acute exacerbation, an attempt was made to secure better drainage by removal of a portion of the turbinate body. This was followed by a more profuse discharge and severer pain than had occurred at any time previously. A year later, another surgeon removed more of the turbinate, secured free drainage through the ostium, and by irrigations through this channel, relieved the patient of acute symptoms, although the discharge continued for several months. During the year 1897, there was practically no discharge, although the offensive odor was always present.

In the spring of '98, a short time before the patient came to me for treatment, all the previous symptoms appeared more violently than before.

The patient was emaciated and anæmic. She complained of a dull (sometimes acute) pain over the right antrum, frequent headaches, sleeplessness, loss of appetite, constipation. On examination, thick, foul pus was found to be exuding from the ostium, which was fairly free as a result of the previous operations on the turbinate. There was tenderness on deep pressure over the antrum. Transillumination showed a dark area over the antrum and under the eye on the affected side, and absence of the pupillary reflex on that side. I advised a radical operation, to which the patient readily consented.

On September 8, 1898, under ether, the upper lip was everted and raised, and an incision about one inch long made at the angle through the mucous membrane and soft tissues down to the bone. With a periosteal elevator, the soft parts were pushed back, exposing the canine fossa. With a small trephine, a button of bone was removed over the lower portion of the canine fossa; an incision was then made through the lining membrane, which was found to be very much thickened. Nearly an ounce of thick, foul pus escaped. The opening was then enlarged by a rongeur forceps until it would admit a finger for exploration. While irrigating the cavity previous to exploration, a calculus of the size of a pea was washed out. This calculus, the crust of which was made up largely of inspissated pus, had for a nucleus the fang of a molar tooth which had been forced into the antrum by the dental operation nearly fifteen years previously. The thickened lining membrane was thoroughly curetted and the cavity packed with iodoform gauze. This was renewed daily for four days, when a large rubber drainage tube was inserted and the cavity subsequently irrigated once daily with a weak solution of formalin. In a week there was practically no discharge. At the end of three weeks the tube was removed and irrigations stopped. In four weeks the lower opening closed. The odor entirely disappeared, all symptoms rapidly cleared up, and the patient's general health, weight, and strength improved. I have had reports from the patient at intervals of a few months. A year and five months have since elapsed and no symptoms of recurrence have appeared.

It is not my purpose to discuss at length the various operations which have been advocated for the relief of empyema of the maxillary sinus. Everyone present has undoubtedly seen acute cases of nasal origin in which the removal of nasal obstruction to the ostium maxillare has been sufficient to effect a speedy recovery. To open the antrum from below in such cases would seem to be inadvisable. In cases of dental origin and cases of nasal origin which have existed for some months, where a thickened pyogenic membrane is present, better drainage, and usually curettage, is necessary to bring about a speedy cure. In such cases I am inclined to believe that an opening through the canine fossa is preferable to all others, for the following reasons:

I. It is an easy, direct method of opening the antrum.

II. It is most favorably situated anatomically to secure drainage.

III. It permits an opening large enough to admit a finger for palpation, the removal of foreign bodies if present, and direct inspection and curettage of the lining membrane, which is often important.

IV. It promises a rapid, certain cure, while small alveolar puncture is, comparatively speaking, unsurgical and uncertain.

V. It is so situated that it is not likely to be infected by particles of food, can easily be kept open by a rubber drainage tube or a wick of gauze, and can be quickly and certainly closed when a cure has been effected, by scarifying the soft parts over it and immobilizing the upper lip by a strip of adhesive plaster for two or three days.

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*Read before the Eastern Section of the American Laryngological, Rhinological and Otological Society at Philadelphia, February 18, 1900.

254 Madison Avenue.

HEROINE AS AN ANALGETIC.

By NORMAN P. GEIS, M. D.,
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An extensive literature has appeared on the use of heroine and heroine hydrochloride in diseases of the respiratory organs, in which it has been shown to possess properties of allaying cough and dyspnœa, and of exerting an antispasmodic effect. These properties have been chiefly utilized in the treatment of phthisis, bronchitis, laryngitis, asthma, hay fever, and whooping-cough. Of the application of heroine in other affections, not much seems to be recorded or known. In the following remarks, therefore, I wish to state some of its other uses, and especially to refer to its employment in large doses. While it is usually unnecessary to resort to doses exceeding one twenty-fourth to one twelfth of a grain, we occasionally meet with cases in which this course is desirable. According to the observation reported below, these massive doses are well tolerated when gradually increased according to the existing condition. It has been mentioned in the literature that heroine may cause nausea and vomiting, but this does not accord with my experience. I have given it in numerous cases of irritable stomach without witnessing these effects. The same may be said about vertigo. I have never seen toxic effects in any of my cases, although extremely large doses have been administered; and the heart has not been depressed or made irregular in any of my patients. Furthermore, I have never observed constipation, pruritus, or dryness of the throat follow, even after the largest continued dose.

As a sleep producer it acts well. For the restless sleep of phthisis, heroine, one twelfth of a grain, one hour before bedtime is usually sufficient. If the drug is to be given every night, one twelfth of a grain as before, followed by one twenty-fourth of a grain an hour afterward, will generally be enough. In those men and women who are too nervous to sleep, one twelfth of a grain will give good results. In cases of protracted illness, heroine should be given a trial to induce rest and sleep. It will be found to work efficiently.

To quiet the reflexes and prevent attacks of epilepsy following one another in rapid succession, I have combined heroine, one twenty-fourth of a grain, with chloral hydrate and sodium bromide every two hours, the latter two in smaller doses than previously. In hysterical seizures, the same combination has given me good results. I have brought the patients round more quickly by it, and without recourse to depressing drugs. It would be interesting to know if others have tried this remedy, and with what results. I will refer to one case:

Miss H., eighteen years old. December 1, 1898, had an hysterical attack which lasted, off and on, for six days. At times she lay unconscious for hours. I gave her chloral and sodium bromide. She had epileptoid attacks one right after the other, sometimes having as many as six in an hour. The attacks lessened, and after six days subsided. July 25, 1900, I was called in consultation to see her, and found that she had had a recurrence the day before, and that during it she became unconscious. She was conscious and resting easily when I saw her, but her eyes were dilated and staring, and she was extremely nervous. I advised one twenty-fourth of a grain of heroine, with chloral and sodium bromide, to be given every hour for three doses; then every two hours. She had one attack that afternoon, and one the next day. One week afterward I saw her again, and she was all right, but very nervous.

Heroine as an analgetic is, I think, destined to take the place of morphine in cases in which that drug is given for the relief of pain only. In neuralgia, from one twenty-fourth of a grain to one twelfth of a grain of heroine in combination with the coal-tar products every one or two hours, is excellent. The use of heroine in these combinations renders large doses of the depressing coal-tar products unnecessary. In acute inflammatory rheumatism, heroine, one-twelfth of a grain every two hours, with the salicylates, is worthy of a trial. It reduces the pain in a remarkable manner. For the pain of cancer, it has proved itself as good as morphine in many cases, and without its bad effects. The patients were relieved of pain; were not "dopey," and could see; and there was no constipation and no headache. To show what large doses can be given and kept up day and night, I will report one case:

Mrs. F., aged sixty years, carcinoma of rectum of five months' standing. On February 1st I saw her for the first time. Diarrhœa, mixed with blood and having an offensive odor, was present. Pain had been increasing for the past week. Heroine, one twelfth of a grain, was given every fourth hour during the day. This was kept up for two days, when the same dose was administered every two hours during the day. February 6th: An offensive rectal discharge was observed, and the stools showed particles of cancerous tissue in them, with blood clots in every movement. Owing to the return of the pain, the repetition of heroine, one twelfth of a grain, was increased to every hour during the day. February 8th: For the last two days there has been no pain, but now, owing to further involvement of tissue, the pain became worse. Doses of one sixth of a grain were given every hour during the day, with the result that the patient slept all night. February 10th: Owing to pain day and night, the dose was increased to one quarter of a grain, every hour. February 12th: In the morning the patient passed large amounts of dead tissue, and the stools were fœtid. A watery vaginal discharge began on that day, showing involvement of the vagina. Heroine, one-third of a grain, was administered every hour, day and night, and on February 12th had to be increased to half a grain. She was able to sleep from twenty to thirty minutes every two or three hours, but still the pain was not absolutely under control. February 14th: The pain came on about fifteen minutes before the hour was up, so I increased the heroine to two thirds of a grain, every hour, day and night. Of the rest of the history there is little to be said. This large dose was kept up for fourteen days every hour in the twenty-four. The patient was entirely free from pain during this time. She took three meals a day, with one of which she had meat. Her pulse never rose above 90, except on the day on which she died. She was not in a stupor, and could talk at any time, although she was delirious once in a while. She died on February 28th. Thus, during fourteen days, she took sixteen grains of heroine every day, and that without nausea, vomiting, or any toxic effects whatever. This, so far as I know, is the largest continuous dose of heroine ever given.

I would emphasize the fact, however, that such doses are indicated only under special circumstances, and only where the case is under direct observation. In the ordinary run of cases in which heroine is employed, such quantities are rarely required, since its sedative and antispasmodic action are exhibited in minimum doses. In cases in which it is employed as an analgetic, however, the dose must be gauged in accordance with the effect produced.

A CASE OF MULTIPLE ANEURYSMS.

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J. D., aged forty-one years, a fireman on the lake steamers, was admitted to the Marine Hospital, Cleveland, Ohio, on August 27th, with secondary syphilis. He had had chancre several years before, followed by the usual symptoms of secondary syphilis. He had been a hard drinker for many years. About two years ago he first noticed that his right arm was getting weaker, with numbness on the inner side of the hand and some distance up the forearm. Shortly after this the left pupil became much larger than the right. The left side of his face would perspire freely, while the other side was dry. On admission, he complained of a dull aching pain in the right arm and shoulder. There was an aneurysm of the first and second thirds of the subclavian artery, projecting up into the right supraclavicular space. There was marked pulsation over the swelling, but no bruit could be heard on auscultation. There was a strong and expansile apex beat of the heart in the sixth intercostal space, to the left of the nipple. Auscultation disclosed a systolic murmur in this region, with a much accentuated second sound. The right radial pulse could scarcely be felt; the left was stronger and about 90 to the minute. There was ptosis of the right upper eyelid; the pupil was normal. The left pupil was decidedly dilated. Both reacted to light. The left side of the face was almost constantly wet with perspiration. There was marked increase of dullness in the region of the liver, extending down to the crest of the ilium. Severe pain was complained of in this region. This pain began about seven days before his admission, at which time he became quite weak. It was very severe at times during his entire stay in the hospital. No pulsation or bruit could be detected over the region of the swelling. Ligation of the axillary artery was advised for the subclavian aneurysm, but deferred until his condition should improve. He was kept in bed and given potassium iodide, twenty grains, and corrosive sublimate, a twentieth of a grain, four times daily. The pulsation in the subclavian aneurysm gradually diminished, and a steady hardening could be felt. At the time of his death the expansile pulsation had almost disappeared. On September 25th he got out of bed at 4 A. M. and fell over in a faint, was put back into bed at once, revived somewhat, and recovered consciousness. Morphine, a third of a grain, was given for the severe pain in the abdomen. He died at 8.20 A. M.

Autopsy, Twenty-six Hours after Death.—The heart showed hypertrophy of the left side, with slight thickening of one cusp of the mitral valve; weight, 11 ounces. The aortic valves were competent, with greatly enlarged sinuses of Valsalva. The right cavities and valves were normal. The ascending and transverse portions of the arch of the aorta contained nine small sacculated aneurysms, while the entire endothelium showed evidence of a chronic endarteritis. The whole extent of the innominate artery was involved in a fusiform aneurysm extending up and including the first and second parts of the subclavian. This aneurysmal sac was about two inches in diameter, and also involved the right common carotid. A great effort at a cure had been made, especially in the innominate portion of the aneurysm. There a firmly organized clot filled the sac, except where a small channel for the blood was left. The sac of the subclavian, too, was filled with partly organized clot, leaving a very narrow channel for the blood current. There was also found a fusiform aneurysm of almost the entire abdominal aorta, beginning at and including the cœliac axis and extending down to the third lumbar vertebra, just below the origin of the inferior mesenteric artery. The bodies of the last dorsal and the first, second, and third lumbar vertebræ were eroded by the aneurysm, to the depth of half an inch, the intervertebral substances being intact. At the origin of the cœliac axis the sac had ruptured on the right side, and the blood had burrowed behind the peritonæum, forming an immense clot, amounting to half a gallon of blood, extending from the diaphragm to the crest of the ilium on the right side. The liver was pushed upward and forward by the large clot. The right kidney was compressed against the abdominal wall in front, very much flattened, and of about twice the normal size. Section showed a marked acute congestion of both the medullary and cortical portions, with numerous extravasations of blood. The left kidney was slightly enlarged and congested, also having extravasation of blood in its substance.

From the history given by the patient, the abdominal aneurysm must have ruptured about a week before his admission into the hospital. At that time the severe pain over the liver developed, with great weakness and nausea. He constantly complained of pain over the liver, and that organ could be plainly felt while he was under observation. He had a very irregular temperature, varying from 98.6° F. in the morning to 102.4° F. at night. This temperature, taken with the apparent enlargement of the liver and pain in that region, strongly simulated abscess of that organ, all the swelling being on the right side. Behind and just below the liver, over the blood clot, there was an acute inflammation of the peritonæum shown at the autopsy. All the organs around were carefully examined for the cause of this peritonitis, but were found to be normal. The inflammation seemed to be due to the burrowing of the blood behind the peritonæum and the consequent tearing loose of the parietal layer. The aortic valves were repeatedly auscultated during his stay in the hospital, but nothing abnormal was heard. The ptosis of the right eyelid and dilatation of the left pupil were thought to be due to syphilitic meningitis at the base of the brain, in the region of the third nerves. From the multiple aneurysms found at the autopsy, it might be reasonably suspected that these brain symptoms were caused by an aneurysm of the posterior part of the circle of Willis, especially since there were convulsive movements of the muscles of the right side shortly before his death. Unfortunately, the consent of his relatives to an examination of his brain was not obtained.

THE TREATMENT OF VARIOUS LONG-STANDING SEXUAL AND URINARY SYMPTOMS IN THE MALE.

By FOLLEN CABOT, M. D.,
NEW YORK.

The importance of determining the existing cause of various obscure sexual and urinary symptoms cannot be overestimated. Without this knowledge we frequently blunder and treat a patient for a condition which is entirely secondary in its nature. For example, a patient presents himself with a persistent urethral discharge. We find, upon examination, a congested, inflamed state of the anterior urethra; we thereupon proceed to treat this condition with various injections and applications to the front urethra. In some cases the temporary result is apparently good, the discharge and local symptoms subside and the patient is relieved. The local treatment is for the time discontinued, when the discharge and previous symptoms promptly return and leave us just where we were in the beginning. In other instances, the condition is greatly aggravated by the above form of treatment, with the consequent loss of confidence on the part of the patient. In yet another class of cases complications result to remote parts of the genito-urinary tract. This is particularly so when strong, deep injections are used, or when sounds have been unadvisedly employed.

The complications in these cases may be caused by extension to healthy tissue from the part which is the existing cause of the trouble, or they may be due to a lighting up of a disease in an organ already affected. If the former is the case, we have done further damage to our patient and have made an already bad matter worse. If, on the other hand, the latter condition results, that is, a lighting up of the existing cause of the trouble, we certainly have given the patient no help.

In a small percentage of cases, direct or indirect extension of the disease to connecting parts follows with no apparent cause, but in the majority of such instances the aggravation and extension of the process is caused by the blind treatment of the physician.

It is evident that if we have a disease of the seminal vesicles, prostate, or Cowper's glands, or of the deep urethra, where the anterior urethra is secondarily involved, treatment of the front urethra alone will not produce permanent relief. Occasionally when the disease in these parts is mild, a cure will follow in spite of improper treatment, but such luck is not common.

If, by following general principles, we give deep injections of silver or sulphate of copper, or use sounds, etc., and only the deep urethra happens to be involved, relief occasionally follows. When, however, as is commonly the case, parts outside the urethra are diseased, we are likely to do damage, as already stated, by violently stimulating and injuring these delicate organs, already very sensitive owing to their previously inflamed state.

Of course it is granted that the majority of the diseased processes in the male genito-urinary organs are caused by the gonococcus lodging in the urethra by way of the meatus, and later, in many instances, from one cause or another involving the deeper connecting organs. The front urethra in many of these cases, for a time at least, recovers, but only to be reinfected later, by a lighting up of a quiescent focus in the deep parts.

Other causes of inflammation of these parts besides the gonococcus are, however, occasionally at work to produce diseased states of the seminal vesicles, prostate, and Cowper's glands, which are very difficult to relieve. Among these causes are various bacteria, such as the streptococcus, staphylococcus, tubercle bacilli, etc.

The following cases, which I have reported in detail, clearly demonstrate the importance of making an examination by a rational method of procedure. By following this method of examination, we shall arrive in all cases at conclusions the result of a complete knowledge of the present condition, and shall be reasonably sure of not doing damage by improper treatment to the patient's genito-urinary system. In making the examination, I proceed as follows:

1. I believe it is best to allow the patient to tell his own story; then, by careful questioning on the part of the physician, further knowledge of his condition may be gained.

2. The patient should completely expose the external genital organs.

3. If a urethral discharge is present, a small portion of it is taken on a clean cover glass for microscopical examination.

4. The testicles and external genital organs should be carefully examined for past and present disease.

5. The urine should be passed into two beakers and its relative cloudiness and the presence of threads carefully noted. The urine should be tested in many cases for albumin and sugar, and an examination of the urinary sediment is frequently indicated.

6. A rectal examination should then be made to determine the state of the seminal vesicles, prostate, and Cowper's glands. This should be done in every case.

7. In acute processes, no urethral examination should be made. This holds good also in cases of acute inflammation of the seminal vesicles, prostate, and Cowper's glands.

In cases of acute epididymitis, urethral examination is not advisable. In chronic diseases of the seminal vesicles, prostate, or Cowper's glands, and in all cases where these organs are found normal, a urethral examination had better be made. By making this examination secondary to the rectal examination, we avoid the possibility of injuring one of these acutely diseased organs connecting with the deep urethra.

In the urethral examination we should first use a full-sized blunt steel sound; if this fails to pass, we may then use smaller sounds and conical bougies of steel or gum elastic. Failing to find a true organic stricture, which is not so common as was formerly believed, we should then use an endoscope with an electric light placed at the distal end of the tube, and search the urethra for erosions and granulations. By the method of examination just described, we should, in the majority of cases, arrive at a correct understanding of the patient's condition.

CASE I.—A., aged forty-eight years, a married man, was referred to me by Dr. Alexander Lambert, March 1, 1900. He came complaining of a purulent urethral discharge of five days' standing, not a great deal of local discomfort, some pain, a feeling of weight in the perinæum particularly marked on moving, and some slight frequency of urination. Had coitus as usual three weeks previously. Has never had a venereal disease; has been married several years and lives without outside ventures. His wife is well and there is no reason to suspect her in any way. The patient can give no reason for the discharge; has made no change in his life for several years, and has done nothing that he knows of out of the ordinary routine of domestic life.

Examination of the discharge showed diplococci thought to be gonococci, which, however, on a later examination with a differential stain proved not to be the gonococcus of Neisser.

Previous history.—The patient has complained for the past ten years of some decrease in the sexual desire, and at times has had considerable difficulty with constipation. During these ten years he has, at times, had a great deal of pain on defæcation, and on one or two occasions this has been so great as to cause him to "faint away." He has been in the habit of rising in the morning to urinate before the usual time, during this period. To overcome the difficulty with constipation and relieve the pain he has used frequent rectal irrigations which have given relief for the time being. His rectum has never been examined, but physicians have treated him for this pain by various prescriptions with no permanent results. During the past two years the patient has suffered from an aggravated condition of angeioneurotic œdema and giant urticaria. This condition has been so extreme at times that his whole body has been literally covered with the eruption, causing great agony. He has been in the hands of well-known skin specialists and has been given all the usual forms of treatment for urticaria as to diet and medicine, but without relief. In fact, his life has become a burden from the state of his skin and the local swelling, his whole face at times swelling up, and making him appear as if he had been battered and injured.

Upon examination, I came to the conclusion that the condition was not gonorrhœa and was not a new disease, but the lighting up of an old chronic focus. I made a rectal examination and found the prostate extremely sensitive and enlarged to nearly twice its normal size; the least pressure causing the patient to cry out with pain and to nearly "faint away." He said the sensation was the same he had experienced many times in the past ten years when having a constipated movement.

My treatment was first to soothe the local condition by internal medication, using diuretics and urotropin and advising the use of daily rectal irrigations. The acute symptoms soon began to subside, the discharge gradually decreased, and at the end of ten days I began massage of the prostate each five days. At each treatment I expressed considerable material from the prostate, and, as time went on, this manipulation produced less and less discomfort, until finally the gland decreased in size and the local sensitiveness almost entirely disappeared. The patient had also previously complained of pain in some of the finger joints; for this I gave him wine of colchicum in small doses. His diet was changed from a limited one to one in which he ate all forms of food in order to build up his general condition.

This form of treatment was kept up for three months, during which time the urticaria and œdema had gradually diminished, so that for a long period none at all was apparent. Occasionally, a limited part of the body was affected, but only for a day or two at a time. He began to feel better than he had for several years, the discharge entirely left him, the urine became gradually clear, and he slept all night without rising early to urinate, as had formerly been the case.

I believe that this patient had a local focus of disease in the prostate and a suppurative state of the prostatic follicles and prostatic capsule. For some reason or other the process lighted up, producing the aforesaid discharge and other local symptoms. I think the condition can be partially explained by the theory of a gouty inflammation of the prostate. At first there was some question as to an operation, but massage was tried first to see if relief would follow.

During the summer, for several years past, the patient had been accustomed to go into the country, where, for two months, he had done a great deal of physical work, during which time the urticaria had nearly all disappeared. The patient's life being a rather sedentary one, there is no doubt that the condition was aggravated by constipation and local congestion. The œdema and congestion were well marked in the scrotum and occasionally were very painful. When this became the case the patient immediately returned to his rooms and took a free local flushing out of the rectum with resulting relief of the scrotal swelling and pain. There seemed to be in this way some direct connection between the diseased and congested condition of the prostate producing mechanical pressure with the resulting swelling of the walls of the scrotum and scrotal veins.

CASE II.—B., aged fifty-six years, a married man, was referred to me by Dr. A. B. Duel. He complained of painful nocturnal emissions and considerable diminution in sexual desire; he passed urine two or three times during the night. The seminal emissions were premature.

In this case there was no history of any venereal disease or sexual abuse. During the past year the condition had been most marked.

The seminal vesicles were found to be involved, but not the circumvesicular region. Prostate, normal. Endoscopic examination of the urethra, as also the use of sounds, gave negative results. This patient's urine was carefully examined; a slight amount of albumin was found at first, but gradually disappeared, and was probably due to a certain amount of pus; otherwise the urine was normal.

The patient's seminal vesicles were carefully stripped each five days with relief following each treatment. His condition has improved and a certain amount of burning following the emissions has disappeared. There was some congestion of the deep urethra, and for this nitrate of silver was given from an Ulzman's syringe each five days, beginning with one grain to the ounce of water, and gradually increasing to five grains to an ounce.

On one or two occasions this treatment was followed by considerable bleeding.

At the end of three months the patient had been having no nocturnal emissions, and had risen to urinate but once at night. He has had more pleasurable feeling upon intercourse, and is much encouraged in this respect. Although this patient has not recovered, he has improved in the way described. It was necessary for him to return to his home in Ohio, whither he went at the end of three months. A few months later I heard from him and he said that he had had a relapse, not so bad as formerly, but with pain and much discomfort. A physician of repute out there who had made an examination of him, had passed a small pointed urethral sound. This was followed by an acute attack apparently of seminal vesiculitis with constitutional symptoms, the patient was laid up in bed and was apparently very sick; all his symptoms were very much aggravated, with intense pain upon urination. Since then I have heard nothing.

I have no doubt that the use of the small-pointed steel sound, with a condition of the kind I have described, was the direct cause of the patient's acute exacerbation.

Case III.—C., aged thirty-nine years, a married man, has complained of burning in the perinæum and itching in the anus for the last year, very severe at times, particularly on urination. No venereal history. Sexual desire not so strong as formerly.

This patient, a physician, consulted me for the before described condition. Upon examination I found a well-marked chronic vesiculitis of a low type, not extensive and no inflammation of the circumvesicular tissue.

From the very start unusually good results were produced in this patient's condition by the process of massage and stripping of the seminal vesicles each five days, until at the end of two months all burning and itching in the region of the anus had entirely disappeared, and the former sexual power returned.

Microscopical examination of the strippings first showed a pathological condition of the spermatozoa which were macerated and, in most cases, motionless. At the end of two months an examination was again made, the spermatozoa then being found normal. The patient at this time was discharged from treatment and told to report again in six weeks. I did this to see if the relief was permanent. At the end of that time the patient reported that he had remained in perfect health.

During the last month of treatment I had increased the interval between strippings to a week, then to ten days.

In cases which respond as readily as this did to the treatment, a gradual increase of the interval between treatments is advised. The treatment that I have mentioned is the only one that has been used in this case by me at any time. He had previously taken much medicine with no relief.

129 East Thirty-first Street.

A CONTRIBUTION TO THE THERAPEUTICS OF PHLEGMASIA ALBA DOLENS.

By A. HERZFELD, M. D.,

NEW YORK.

Since the introduction of unguentum Credé, a number of cases have been published in which this remedy has rendered excellent service in septic conditions, particularly in puerperal infections. The fact that no case of phlegmasia alba dolens treated by unguentum Credé has as yet been published, leads me to describe the following case:

M. W., twenty-seven years old, has always been in good health. Parents are alive and healthy; an aunt died of "milk leg," which was amputated.

The patient was confined on May 9th after being in labor nearly twelve hours, there was a total absence of labor pains, the head was low down in the pelvis, and a comparatively easy forceps delivery was made and an unusually large child was delivered. A tear of the perinæum of the second degree occurred at delivery, and was immediately sutured with three silkworm-gut sutures.

The patient passed through the first twelve days in a normal puerperium, when, against my advice, she left her bed to do her household duties. One of the perineal sutures had cut through, leaving a small ulcer, the probable source of infection, visible. One week later, *i. e.*, on the twentieth day after delivery, the patient was seized with violent chills, her temperature in the mouth being 103.5° F. Her left lower extremity was swollen to nearly double its normal size, and was so hard that an impression with the finger could barely be made; the pains were intense, the lochia very much diminished, and of an offensive odor. I ordered bichloride of mercury injections, 1 in 3,000, twice daily and sulphate of quinine, five grains every three hours. The entire lower extremity was wrapped up in a solution of lead and opium. This procedure being of no avail after one week's constant application, a solution of aluminum acetate was applied for two more weeks without any result locally, or any general improvement. High temperatures continued during these three weeks with frequent chills, the daily rise being to 102.6° F.

On June 19th, I used unguentum Credé for the first time, and fifteen grammes (about 225 grains) were rubbed into the entire lower extremity. The following day, another massage with unguentum Credé, fifteen grammes, was made, when the temperature fell below normal, so that active stimulation was necessary. In this manner 180 grammes were used in two weeks. The patient improved rapidly, though there still remained a slight swelling around the knee and ankle, which disappeared completely after another application of sixty grammes in daily doses of fifteen grammes. By August 1st, the patient was attending to her household duties, being entirely well.

The interesting features of this case are the comparatively late appearance of the phlegmasia alba dolens (on the twentieth day after delivery) and the rapid effect of unguentum Credé on pain, fever, and swelling, after all other means had signally failed, leading us to the impression that its action was very similar to that of antitoxine. In conclusion, I would call attention once more to the large dosage used, which I consider necessary for an effective use and trial of the remedy.

214 WEST TWENTY-FOURTH STREET.

REVELATIONS OF THE PROCTOSCOPE IN HEALTH AND DISEASE.*

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IT is but a truism to say that clear and definite knowledge of the anatomy of an organ is the fundamental requisite to intelligent comprehension of its pathology. This applies, of course, with especial force to those organs or parts the diseases of which are mainly surgical.

Unquestionably, the greatest obstacle the rectal surgeon has ever had to face has been lack of adequate facilities for examination of the organ. The immense number of "new" and "improved" speculums, sounds, retractors, etc., from time to time perpetrated upon a helpless profession, are convincing witnesses of this fact. And the barbarous practice of introducing the entire hand into the rectum for the purpose of exploration, countenanced by certain authorities even to-day, bears still more eloquent testimony to the desperation of the workers in this field.

All varieties of speculums and bougies are open to one simple criticism, namely, that they fail to attain their object. The best of the former, if such an expression is permissible with reference to contrivances uniformly bad, effect only partial exposure of the distal three inches of the organ, and that at the expense of great discomfort to the patient unless general anæsthesia is employed. With respect to bougies, the shape and contour of the rectum are such that they are of doubtful value even in the hands of the most skilled, and their use is attended by an element of danger too positive to be ignored.

The relations and attachments of the rectum are such that thorough knowledge of its anatomy can only be acquired by studying the organ *in situ* in the living subject. I would not be understood as disparaging the value of dissections. Of course much of the anatomy can only be learned through dead-room work. But the rectum has certain peculiar and distinctive characteristics which are so modified by post-mortem changes as to render their demonstration by the ordinary methods impossible.

The great underlying principle of proctoscopy is atmospheric inflation of the rectum. Employed under ordinary conditions, the proctoscope is a disappointment, and practically a failure, in that the collapsed state of the organ permits a view of only an area corresponding to the diameter of the instrument used. For the successful practice of proctoscopy there are just two essentials, namely: (1) proper posture of the patient, and (2) the employment of reflected light. With regard to posture, nothing short of the knee-chest position or some modification of it will answer, and even this will fail unless the additional precaution is taken to remove all constriction from about the patient's waist. When such position is assumed, the movable viscera fall forward and downward out of the pelvis, the sigmoid flexure is straightened out as much as its attachments will allow, and a partial vacuum is formed in the rectum, into which, upon opening the anus, air rushes distending the organ, when in a healthy condition, to its full normal extent. Just here, the chief objections to those elaborate modifications of the proctoscope designed to accomplish forcible inflation of the rectum, may be mentioned. In the first place, when the organ is in an approximately healthy condition they are wholly unnecessary. In the second place, when it is so diseased that inflation fails to take place spontaneously the application of sufficient force to effect this result would be hazardous.

Concerning the light, it need only be further said that either the natural or the artificial form will serve the purpose. The one essential in this connection is that a good concave mirror be used to concentrate it upon the field to be explored.

These details of technique are referred to thus explicitly for the reason that I have more than once been approached by physicians who had attempted this method of examination, with the complaint that it was a failure in their hands. Inquiry has always developed the fact that the failure lay with them instead of with the method.

Whether in health or disease, due care and gentleness are to be employed in the instrumentation, both in order to avoid inflicting pain, and to the end that the comfort of the patient may promote that condition of passive relaxation so necessary to satisfactory results. Properly performed, proctoscopy of the normal rectum is entirely painless; in disease, it is more nearly so than any other method of examination. As having an important bearing upon this point, it may here be noted that the introduction of the instrument is greatly facilitated by bearing in mind the normal direction of the bowel. Through the distal two inches—the fixed rectum—it should be made to pass as though the umbilicus was the objective point, then it should be turned abruptly backward, or rather upward in the proctoscopic posture, into the hollow of the sacrum, the concavity of which is to be closely followed for the succeeding four inches.

In proctoscopy of the normal rectum, the two inch instrument—the anoscope—should first be employed.

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* Read by title before the Mississippi Valley Medical Association, Asheville, October 9-11, 1900, and read before Tri-State Medical Society of Arkansas, Mississippi and Tennessee, at Memphis, Tenn., November 14, 1900.

The distance to which it can be introduced varies somewhat with the conformation of the external parts. As a rule, it just reaches a point corresponding to the circumrectal attachment of the levator ani muscles. The chief value of this instrument is for the exploration of the anal canal, and the most noteworthy revelation it makes has reference to the muscles just mentioned. Upon withdrawing the instrument slightly, the proximal extremity of the anal canal is seen to contract uniformly until its diameter is diminished by more than half, a furrow, or sulcus, forming between the ring of contraction and the internal sphincter. In some cases the closure is more nearly complete and the appearance very much resembles that of a sphincter muscle in action. The phenomenon is produced by the simultaneous contraction of the two levator ani muscles, which, neither as regards structure nor action, can be properly considered distinct and independent. At a recent medical gathering, I had occasion to report a case of pelvic abscess that had ruptured into the bowel above the insertion of the levator ani. My astonishment was great when a distinguished gynæcologist present asked if he had understood me to say that the levator was attached to the bowel at any point; and upon my replying most emphatically in the affirmative, he said that such was certainly not the teaching of gynæcology. To those accustomed to the use of the proctoscope, my critic's statement will prove interesting, not to say amazing.

Proctoscopy of the movable rectum at once demonstrates the rectal valves to be anatomic facts and the most conspicuous features of this gut. Considerable variation as to the number, location, etc., of these structures is encountered in different subjects. But I wish most emphatically to state that they are never absent, and never so poorly developed as to warrant the least uncertainty as to their existence. With respect to any given individual they are absolutely constant and invariable. The mucous folds, which have been confused with the valves by certain writers, are entirely different structures due to the great redundancy and mobility of the rectal mucosa, are met with only in collapsed states of the organ, wholly obliterated by distension, and are consequently not to be seen in proctoscopy, and are, moreover, purely adventitious as to size, shape, location and number.

When the proctoscope is introduced beyond the level of the levator ani muscles and maintained steadily in the long axis of the bowel, the valves are seen standing out from alternate sides and apparently narrowing the bowel lumen to the irregular elliptical shaped opening between their free margins. Occasionally, no such opening is visible, and the further course of the gut only becomes visible when the first valve is gently displaced by the instrument. It is a simple feat by means of the probe hook to verify the reality of these structures and determine their distance apart, individual depth, etc. The classic description of these structures written by Mr. Houston seventy years ago, in spite of many vigorous assaults, remains true to-day in every essential particular. Three is the average number of the valves, and they are so disposed as to divide the rectum into separate compartments and to form a spiral tract down its interior. These several compartments are readily recognized under proctoscopy. Martin's suggestion, that they be designated rectal chambers and numbered from below upward, is a valuable one, in that it renders possible that definiteness of expression so greatly to be desired in speaking of this organ and its diseases. Thus, for instance, when it is said that a lesion is located on the anterior wall of the second rectal chamber, the idea conveyed is exact and definite.

Passing the proctoscope into the highest rectal chamber, the physiologic narrowing at the juncture of the rectum and sigmoid will at once be observed. This is always well marked and guarded by a valve which serves still further to constrict the lumen at this point. At this site another noteworthy revelation is made. It has long been the teaching that the junction of rectum and sigmoid flexure takes place opposite the sacro-iliac articulation on the left side, and that the rectum below this point presents a lateral curvature with its convexity looking toward the right. Eighteen months' experience with the proctoscope has led me to conclude that this is by no means the universal arrangement. It has been my observation that, in fully one half the cases, the rectum begins to the right of the median line, and that the lateral curvature, if any, has its convexity directed to the subject's left. In certain rather rare cases, instead of a curvature, the rectum presents a well-marked angulation. When this condition obtains, it is usually to be observed at the site of the second or third rectal valve, and constitutes a point to be carefully reckoned with, both in the introduction of the proctoscope, and in the question of diagnosis.

For the exploration and study of the rectum proper, the six inch proctoscope is the longest required. Intelligently manipulated, this instrument may in the majority of cases be introduced well into the sigmoid flexure. When it is desired to carry the examination to the higher parts of the gut, instruments of greater length must be employed, *i. e.*, the sigmoidoscope and colonoscope. In certain cases these will serve an indispensable purpose, though prudence would dictate that they, particularly the latter, be resorted to only in case of necessity.

The above is but an outline of the more striking revelations of the proctoscope in health. That they are important to all who would thoroughly understand the anatomy of the organ, is self evident. And it is also an obvious fact, though disregarded in some quarters, that no man who has not practised this method of examination is in a position to discuss either the truth or the import of the revelations alluded to.

The possibilities of proctoscopy in the diagnosis and treatment of diseased conditions of the lower bowel, are practically limitless. That this method is capable of revealing every detail of every portion of the rectum to direct inspection is a fact of almost revolutionary significance to the workers in this field. As a direct result, several mooted points in rectal pathology have been settled beyond the possibility of further controversy, and the term "obscure," as applied to diagnosis, banished from the vocabulary of the well equipped proctologist. I am prepared to make the broad statement, that failure to locate with precision and correctly to diagnosticate any rectal lesion means, with rare exceptions, either inexcusable incompetence or a most reprehensible carelessness.

But the possibilities of the proctoscope are by no means limited to rectal diseases proper. The true situation and character of other (extra-rectal) pelvic diseases are occasionally revealed by this method after all others have failed. As might be supposed, such instances are met with chiefly in obstructive conditions of the lower bowel due to extra-rectal causes, such as adhesions, the pressure of neoplasms, inflammatory masses, etc.

It would involve a fruitless consumption of time to undertake specific mention of the various separate lesions to which the proctoscope forms an open sesame. Both as regards diagnosis and treatment, the list is coextensive with the pathology of the rectal ampulla. For present purposes I shall content myself with the citation of a few cases by way of illustration:

CASE I.—On September 29, 1899, I was called in consultation with Dr. T. L. Maddin to see Miss T., aged thirty-six years. Both the family and the personal history clear. The trouble from which she was suffering dated back about one year, at which time she first noticed some blood and mucus in her dejections. These gradually increased in amount and her health began to fail. She sought medical advice and was treated, or rather mistreated, for "bleeding piles," "rectal catarrh," and "chronic dysentery," and was finally sent to the Springs. Returning home after several weeks, she was weaker than when she left, being profoundly anæmic from loss of blood and her bowels moving from six to twelve times a day. Proctoscopy revealed no trace of hæmorrhoids, bleeding or otherwise, and no lesion of any kind in the rectum proper. Not until the examination was carried eight inches up, was the source of the trouble located. At the junction of the rectum and sigmoid, and extending several inches into the latter, there was an outgrowth entirely encircling the gut, which had much the appearance of malignancy but proved, on microscopic examination, to be papillomatous in character. The curette was first resorted to, and was followed by direct local applications through the proctoscope, with the result of saving the patient's life. Correct diagnosis and effective treatment would have been impossible in this case by any other means within my knowledge.

CASE II.—Mr. G., aged forty-five years, referred by Dr. W. G. Ewing, January 13, 1900. The patient gave the following history: He was submitted to operation for internal hæmorrhoids in the summer of 1898. His convalescence was attended by great pain in the region of the rectum, and by the formation of a large pelvic abscess that finally discharged through the bowel. He was under treatment for the abscess during the next six months, at the end of which time he was pronounced cured. The succeeding year was marked by a persistent muco-purulent discharge from the anus and a more or less constant sensation of uneasiness in the parts. For several days before I saw him, he had been suffering with increasing pain in the old locality, which was greatly aggravated by defecation. Digital examination revealed a large fluctuating mass presenting upon the left side about three inches above the anal opening. He was sent to bed and prepared for operation the following day. During the night, the abscess ruptured into the bowel with the disappearance of all symptoms. Two days later, the patient was submitted to a careful and prolonged proctoscopic examination and the point of rupture finally located in the left posterior wall of the first rectal chamber, about half an inch above the attachment of the levator ani muscle. The treatment, always through the proctoscope, consisted of incision, curettage, stimulating applications, gauze packings, etc., and, after three months' perseverance, resulted in closure of the cavity and tract and complete cure of the patient.

CASE III.—Mrs. F., aged forty-eight years, came to me from Alabama, February 9, 1900. Personal and family history excellent. The patient had been a sufferer for several years with chronic diarrhœa, which she thought was a sequel of an attack of acute dysentery. She had undergone treatment at the hands of several different physicians, no two of whom agreed as to the diagnosis, and no one of whom had ever made a physical examination of the rectum. At the time she consulted me, she was having from four to eight or ten discharges from the bowel daily, the majority of which consisted of blood-stained mucus and pus in variable amounts.

Proctoscopy revealed a general hypertrophic proctitis with many points of superficial ulceration, simple in character, involving the mucous coat of the ampulla and extending almost as high as the rectosigmoid junction. The trouble rapidly yielded to the use of the nitrate of silver spray and the application of a stronger solution directly to the ulcerated points.

This case is reported as one of simple ulceration of the rectal pouch. A certain eminent authority contends that such pathology is of extremely rare occurrence in that situation. My own observation justifies a very different conclusion. At least a dozen cases similar to the one reported have come under my care within the past few months; and, in the light of my personal experience, I am disposed to regard the question as one which the proctoscope has definitely and finally settled.

In conclusion, I would enter an earnest plea for the more general adoption of the proctoscope. What the laryngoscope, ophthalmoscope, stethoscope, etc., have proved to be to the workers in other fields, the proctoscope is to those who have to do with the rectum and its diseases. It has substituted certainty for conjecture in diagnosis, and scientific accuracy for guesswork in treatment. In short, it has established beyond contention the claim of this department to the rank and dignity of a separate specialty. And those of us who regard our calling from the nobler point of view can not afford to follow longer in the old haphazard path merely because it was blazed out by our forefathers and has been trodden by many illustrious feet.

161 NORTH CHERRY STREET.

A DISSECTION OF SOME ANTITOXINE STATISTICS.

By J. EDWARD HERMAN, M. D.,
BROOKLYN, N. Y.

The inclusion by the culture method of diagnosis of many cases as diphtheria which formerly were not regarded as being diphtheritic, vitiates the present statistics for the purpose of comparison with results in the past, when bacteriology had not yet become so self-assertive. That bacterial diagnosis immediately caused many previously ignored cases to be included in the notification lists, is made clear by the following extracts from reports of the boards of health of New York City, Brooklyn and Boston.

In Brooklyn, in 1892 and 1893, a total of 3,501 cases was reported—this being before the culture system was in operation. But during the two years, 1894 (when the culture method was introduced) and 1895, the number of cases reported increased to 8,089.

The total number of cases occurring in New York City during 1891 and 1892 was 9,528, the diagnosis in these cases being made without recourse to laboratory methods. Coincident with the establishment of means for making the bacterial diagnosis—which was first afforded in 1893 and 1894—the number reported reached 15,623.

During 1892 and 1893, in Boston, there were 2,818 cases which were diagnosticated on their merits by clinical observations after the old method and without the intervention of bacteriology. The laboratory work in Boston was begun in 1894. In this year, and in 1895, the number of cases reported increased to 7,114.

Dr. A. Robin has positively asserted that the Boston laboratory was opened only in 1898. This statement is certainly erroneous. The report of the Boston board of health for 1894 contains this announcement: "The Board of Health made an arrangement with Professor Ernst for this work to be done at the Harvard Medical Laboratory. Dr. McCollom, the physician to the board, having qualified himself in bacteriological work, was relieved from other duties and assigned to this. His work in the laboratory has been of great value in connection with the other means now in use for the suppression of diphtheria." In another place in that report it is stated: "This has given rise to early treatment and isolation where the ordinary means of diagnosis have heretofore left such cases to go as ordinary sore throat." Speaking of the great increase in the number of cases reported in Boston during the first years following the introduction of this laboratory work, Coakley wrote: "The bacteriological examination of cultures begun in 1894 was the means of discovering many mild cases, and thus increased the total number of cases, and as the patients in these cases mostly recovered, the death rate was reduced."

In Boston, with the addition of a great number of mild cases in 1894, it naturally followed that there must occur a decrease in the case fatality. Yet at the same time there was no actual saving of life; but, on the contrary, the death rate per 10,000 population increased from 9.97 in 1893 to 16.67 in 1894.

A canvass of the reports of the Boston City Hospital and the Willard Parker Hospital of New York City will demonstrate that no objection can be made to the allegation that, with the introduction of the bacterial method of diagnosis, the number of patients admitted to the hospitals about doubled. To the Willard Parker Hospital 876 cases were admitted during 1890, 1891, and 1892, when the bacterial diagnosis was not yet being made. But we find in 1893, 1894 and 1895, when the new method was being used, that the number of cases amounted to 1,820. The Boston City Hospital, in 1892 and 1893, received 806 cases diagnosticated from the clinical standpoint; while, with the aid of the culture method of diagnosis, in 1894 and 1895 the number admitted was 2,164.

That the introduction of antitoxine also augmented the interest in diphtheria and had a great influence in bringing many mild cases to hospitals, admits of no denial.

Understanding that these two weighty factors were responsible for the presence of such a number of patients in diphtheria hospitals, as was never seen there before, it at once becomes clear why the case fatality declined in these institutions.

Antitoxine advocates have argued when there happened to be a decrease in the diphtheria mortality in any city, that the lowered death rate was the result of the use of antitoxine. In some cities the results have been better during antitoxine years, not only because many cases have been reported which previously were not included in the statistics, but also because diphtheria differs in the number and severity of cases from year to year in any particular city; and antitoxine happened to be introduced when the epidemic was declining in those places which showed a lessened mortality. This was especially true of Berlin and New York City. In the latter city, diphtheria has had a mortality which has run an up-and-down course for the past half century. The death rate would steadily ascend for a number of years, and then there would be a decline. Antitoxine came into use when the death rate had climbed to the apex of an ascent and, according to the history of the disease in New York City, it was time for the descent to begin. Had antitoxine not been heard of, the decline in the death rate would still surely have taken place. At the end of 1898 the mortality ceased to decline; and, although it had not come down as much during the four antitoxine years as it once did on a previous occasion during a period of four years, in the year 1899 it again commenced to ascend. In other words, the diphtheria death rate and case fatality in New York City was higher in 1899 than it was in 1898. The pendulum swung back despite the use of antitoxine.

In London it was different, for evidently in that city the epidemic did not happen to be waning when antitoxine was brought to the notice of the profession. The consequence is that antitoxine has scored a failure in London. Whereas the death rate before antitoxine years was 48.6, it has gone up to 49.3 during antitoxine years. The diphtheria death rate per 100,000 population increased from 39 in 1898 to 43 in 1899.

In Liverpool, during 1887 to 1894 (all years before antitoxine was used) the death rate was 14.8. During the four antitoxine years, from 1895 to 1899, the mortality was 24.1.

The case fatality in Liverpool also increased from 27.7 per cent. to 29.7 per cent. Cobbet, from whose article in the *Edinburgh Medical Journal* for June, 1900, these English statistics were obtained, admits: "The change which has occurred has been in the wrong direction, and the mean of the last five years has been seven per cent. higher than that of the preceding four."

In Manchester, the mortality increased from 8.6 in 1897 to 9.4 in 1898, and in 1899 it had gone up to 15.4 deaths per 100,000 population. The case fatality used to be 28.2 per cent. before antitoxine times. It is now 30.7 per cent. under antitoxine treatment.

In Bristol, the mortality has increased from 13.3 to 13.9; and in Leeds from 22.3 in the period from 1886-1894 to 41.5 during the four antitoxine years 1895-1899.

Of Birmingham Cobbet says: "The records of this town, like those of Liverpool and Manchester, show no sign of having been influenced by antitoxine." The Birmingham death rate from 1892 to 1894 was 18.8. During the antitoxine period it is 37.4. The case fatality before antitoxine years was 20.8 per cent. Since 1895, notwithstanding antitoxine treatment, the case fatality has risen to 23.4 per cent.

Antitoxine, the serio-comic of medicine, continues to receive constant attention in the journals and promises to remain a prominent subject for future discussion. This is right, for the profession has never had a more momentous question to settle. In the interest of true medical progress, the fallacies of serum-therapy must be exposed and the mistaken views concerning statistics based on antitoxine treatment corrected; for, if it is not done now, and we blindly follow the bell-wethers of bacteriology, they will lead us into a mire of mistaken conjecture out of which it will take the profession a long time to flounder back to the firm ground of scientific truth.

1098 BUSHWICK AVENUE.

CESSATION OF RESPIRATION DURING CHLOROFORM ANÆSTHESIA, DUE TO CHEWING-GUM IN THE LARYNX.

BY E. PAYNE PALMER, M. D.,

PHŒNIX, ARIZ.

ON Sunday, November 4th, I was asked by Dr. Robbins to administer chloroform to a child on whom he was to perform circumcision. When I arrived at his office, I found a well-developed boy about four years of age. After inquiring about the child, I prepared him according to the usual method, and proceeded to give the anæsthetic. He took the chloroform well, making no resistance or complaint, something unusual for a child of his age. It required more than the usual amount to get him completely anæsthetized, but it was finally accomplished.

The operation was begun, the prepuce removed, and the clamp taken off. The anæsthesia was acting well. The pupils were slightly contracted, the respirations were regular and deep, the pulse was full and strong, and the face had a good color. Suddenly, and without warning, there was a wheezing inspiration, after which respiration ceased entirely. An examination showed the pupils unchanged and the pulse full and strong; instead of a blanching of the face, it began to show congestion. At the same time blood was spurting from the wound. I immediately gave a sixtieth of a grain of strychnine sulphate hypodermically. Dr. Robbins elevated the lower extremities and I practised Kelly's method of artificial respiration without any satisfactory result. I then tried the Sylvester method, which also failed to bring about the desired result. I then grasped the tongue and began rhythmical traction, and at the same time made a hurried examination of the pharynx. Much to my surprise, I discovered a foreign body protruding from the larynx. I pulled the tongue as far forward as possible, introduced my right index and middle fingers, and removed a piece of chewing-gum, about two inches long, half an inch wide, and a quarter of an inch thick. As soon as that was removed and artificial respiration and rhythmical traction of the tongue were begun again, the respirations were resumed and the patient was soon out of danger. Then the operation was completed.

The time occupied in resuscitation was about two minutes. During the cessation of respiration the pulse continued full and strong, though it increased in rapidity, the wound continued to bleed, the pupils dilated but slightly, and the face became more and more congested, until it was purple and spotted. On questioning the mother afterward, I found that she knew nothing about the child having the gum.

The point which I wish to emphasize is that we are not careful enough in our examinations before giving an anæsthetic. Always examine the mouth and pharynx for foreign bodies, as I shall always do hereafter, before administering an anæsthetic.

One cannot feel too keenly the responsibility he has assumed when giving an anæsthetic. At such a time he literally holds the patient's life in his hands, and the slightest inattention to details may end that life.

108 NORTH CENTRE STREET.

The Treatment of Garbage in Brooklyn.—The demurrer raised by the Department of Public Health to the complaint in the action against New York City brought by the New York Sanitary Utilization Company for an injunction restraining the Board of Health from enforcing the provisions of an act passed by the legislature in 1900, containing a provision that it shall not be lawful to carry on within the borough of Brooklyn the occupation of rendering by steam or boiling, garbage, swill or offal, has been overruled by Justice Scott, of the Supreme Court, who declares that the statute clearly violates several constitutional provisions, as it does not declare the prohibited business to be a nuisance, and, while prohibiting the carrying on of the business in Brooklyn, impliedly permits it in any of the other boroughs.

A RÉSUMÉ OF SOME PAPERS PRESENTED TO THE THIRTEENTH INTERNATIONAL CONGRESS OF THE MEDICAL SCIENCES.

(Concluded from page 723.)

The following papers are abstracted from the *Comptes rendus* furnished by the *Agence centrale de la presse scientifique internationale.*

Section of Pharmacology, Therapeutics and Materia Medica.

Indications for Venesection.—M. A. Robin said that the result of the withdrawal of blood upon nutrition and metabolism must be considered, as well as the mechanical and antitoxic effects of venesection. Researches carried on by the author for years had satisfied him that after bleeding from 150 to 250 grammes (roughly 4½ to 7½ ounces) in cases of pneumonia, cardiac trouble and uræmia, polyuria was a regular sequence, while the ratio of solids, *e. g.,* urea, phosphoric acid and nitrogen, was increased. Pulmonary ventilation was also increased, the increase amounting in one case to 61 per cent. The oxygen used by the tissues was also increased. Similar but less marked changes were also to be seen after hæmorrhage, whether physiological, as in menstruation, or pathological, as in epistaxis, etc. M. Robin considered venesection an excellent means to increase cellular oxidation, and that it was indicated whenever nutrition was interfered with by inadequate oxidation, and not by excessive disassimilation.

[See also *New York Medical Journal,* September 22d, p. 502.]

The Treatment of Fever.—In response to the question, Should Fever be Treated? Dr. Stokvis, of Amsterdam, said that in some cases it was impossible not to interfere. Such, for instance, as when the patient was in danger of collapse from alarming conditions arising from the heart, respiratory organs or nervous system. As to the mode of intervention, Dr. Stokvis thought the attempt to reduce fever by antipyretics a great mistake, and that hydrotherapeutics and analeptics should alone be had recourse to, although medicines might occasionally be profitably employed to ward off impending collapse. This was the case in those diseases in which specific medication was possible, as in them the disease itself, as well as the pyrexia, could be combated. Except in malarial disease, however, and acute rheumatism, specific medication was not yet possible. Dr. Stokvis, therefore, considered that nursing rather than the treatment of fever was necessary in most cases, and that diet and regimen, rather than drugs, were needed in such diseases.

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The Treatment of Fever.—Professor Lépine, of Lyons, said that later observation was displacing the ancient dogma of fighting pyrexia. While fever might indicate the gravity of a disease, it was by no means to be regarded as its principal factor, and efforts must be made to establish specific medication. Where this was not yet attained, the physician must aid by watching the reaction of the organism, controlling it at times by antipyretics, stimulating it with hydrotherapeutic measures and the application of cold in hyperpyrexia, and by sustaining the system generally.

The Treatment of Fever.—M. A. Robin considered that the treatment of fever must be based upon the study of metabolism in the patient. Two types of pyrexia must be recognized: (1) Simple, where oxidation and respiration were increased; and (2) grave, the result of grave intoxication, where oxidation was diminished and disassimilation increased. In fevers of the first type, antipyretics, the controllers of oxidation, were indicated; while they were injurious in the second type. In this latter type the following three points must be arrived at: 1. The phenomena of disintegration should be diminished by the use of certain antipyretics, as quinine, if given in small doses (from 7½ to 9 grains in the twenty-four hours). Larger doses would have the opposite effect. The analeptic treatment would fulfil the same indication. 2. Oxidation should be encouraged by aeration, the inhalation of oxygen gas, and the drinking of large amounts of fluid, and by hydrotherapeutics. 3. The excretion of waste products must be facilitated, and their retention prevented, for which it was necessary to make them soluble; which effect was a result also of oxidation. By administering salicylic and benzoic acids, insoluble glycocol was converted into salicyluric and hippuric acids, which were easily eliminated in the urine.

Section of Genito-urinary Surgery.

Vasectomy and Bottini's Operation.—M. G. Nicolich, of Trieste, said of vasectomy that from October, 1895, up to December, 1899, he had performed thirty-five vasectomies with five cures. He considered as cured the prostatic who no longer had occasion to use the catheter, his micturition being easy, his prostate diminished in volume, and there being no residual urine. But it was necessary to be on guard against believing every subject cured, even though he remained a long time without having recourse to the sound. He had noted, among others, one patient who had remained well for three years, when he was attacked with a fresh onset of complete retention; and it was necessary to distrust these cures when they related to cases in which operation had been recently performed after a first attack of acute retention. He grouped under three heads his cases of vasectomy operated upon: 1. A first attack of complete retention supervening on a greater or less period of dysuria. 2. Incomplete chronic retention at intervals becoming complete, with or without distention of the bladder. 3. Complete retention. He had operated upon six patients of the first group with two cures, twenty-eight of the second with three cures, and only one case of the third, without any success. He was able to affirm that vasectomy was an operation which was capable of ameliorating certain prostatics, and which, although in only a small proportion (fourteen per cent.), caused the diminution of prostatic hypertrophy and the cessation of nearly all the phenomena of the disease.

Of the *operation of Bottini,* the author said that he had performed it on twenty-nine prostatics; of these, four were afflicted with their first attack of complete retention, and were all cured; fourteen suffered from incomplete retention which, at invariable intervals, became complete; of these, ten were cured, one had received no benefit, and three were dead; of eleven patients in a state of complete retention, eight were cured, one was not cured, and two were dead. Thus, out of twenty-nine operations, M. Nicolich had had twenty-two cures, two failures, and five deaths.

The author's experience, based upon prolonged and attentive observations of many prostatic cases operated on by vasectomy, justified him in not disregarding all the value claimed for this operation; but, on the other hand, Bottini's operation had given him such good results that he gave it the preference in all cases. When a prostatic arrived at being compelled to depend upon the catheter, the operation was indicated to attempt to prevent the infection which, sooner or later, accompanied its use; even if infection was already established, the operation was still very useful. According to the author's experience, and from what was to be learned from the publications of surgeons who had often practised galvanic prostatotomy, he had arrived at the conclusion that he did not know of any contraindication to this operation, with which it had been possible to cure many patients in a more or less desperate condition.

The dangers of the operation were not so great as was believed, and when the author thought of the mortality of castration in prostatics, he asked himself why this operation, nearly always ineffectual, was so often practised, and that of Bottini condemned, which out of all the operations proposed for the relief of prostatic hypertrophy, was the most certain and the least dangerous. He had been able to determine that his patients operated on were well and able to empty the bladder perfectly, in one case, twenty-three months; in one, twenty-two; in one, eighteen; in one, seventeen; in two, fifteen; in one, thirteen; in one, eight; in one, six; in one, three; and in one, two months after operation, respectively.

Therapeutical Notes.

Sodium Metavanadate in Tuberculous Disease.—According to Anceau (cited in the *Journal de médecine de Paris* for October 14th), sodium metavanadate is soluble in water, and, in medicinal doses, seems to be free from any action on the heart or the respiration. In daily amounts of 0.003 of a grain, it excites the appetite and favors a gain in weight, appearing to act as a spur to nutrition. In the treatment of tuberculous disease it may be looked upon as an adjuvant to the hygienic treatment, especially that form which consists essentially in generous feeding.

A Mixture for the Prevention of Abortion.—Bossi, according to the *Journal des praticiens* for September 15th, recommends this mixture:

℞ Fluid extract of hydrastis canadensis,
Fluid extract of hamamelis virginica,
Fluid extract of viburnum prunifolium,
Tincture of piscidia erythrina, } each, 10 parts;
Wine of opium........................ 2 parts.

M. S. Dose, 90 drops in half a glass of water, to be repeated if necessary up to three doses in twenty-four hours.

An Ointment for Scabies in Children.—Perrin (*Bulletin général de thérapeutique; Progrès médical,* November 3d) gives the following formula:

℞ Camphorated oil of chamomile.....100 parts;
Ointment of liquid storax........ 20 parts;
Balsam of Peru................. 5 parts.

M. To be rubbed on in the evening; on the next morning cleanse skin with warm soap and water and sprinkle it with starch, or, if the skin is inflamed, dress it with oxide-of-zinc ointment. The treatment should be continued for eight or ten days.

Some Statements Concerning Calomel.—The new Italian journal, the *Practica del medico,* says in its September number that the fact that certain erroneous notions about calomel, especially its incompatibility with other drugs and the danger of its transformation into corrosive sublimate, are widely entertained, has led it to make the following statements: 1. Calomel cannot be changed into corrosive sublimate in the short time for which it remains in the alimentary canal; it is a very stable salt, and only small quantities are transformed into soluble albuminates. 2. Purgative doses are quickly eliminated with the fæces, while small, fractional doses remain in the intestine for a long time and, being changed into soluble salts, may be absorbed; this is the reason why calomel in small and repeated doses is more dangerous than in a single large dose. 3. Substances which contain sodium chloride are not incompatible with calomel; those containing hydrocyanic acid (such as cherry-laurel water and emulsion of bitter almonds) are incompatible with it, because they lead to the formation of mercury cyanide, which is very soluble and rapidly absorbed. 4. It is dangerous to administer calomel which has been for a long time mixed with powdered sugar. 5. Calomel should be kept in opaque and well-stoppered bottles, for under the influence of light and air it partially decomposes. 6. Calomel should be in the form of an amorphous powder, fine to the touch, and of uniform whiteness.

A Subcutaneous Injection for Tuberculous Disease.—Laborde, cited in the *Journal des praticiens* for September 8th, employs this mixture:

℞ Guaiacol.................. 2 drachms;
Eucalyptol................. 2½ drachms;
Sparteine sulphate...........15 grains;
Oil of sweet almonds, enough to make...................50 drachms.

M. Seven and a half minims are to be injected at first, and the dose (to be repeated every two or three days) may gradually be increased to from 75 to 105 minims. Ergotine may be added to prevent hæmoptyses.

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METASTATIC GONORRHŒAL INFECTION.

(First Article.)

LIKE many other pathological puzzles, that of gonorrhœal rheumatism seems now approaching an irrefragable solution, if, indeed, it may not be said to be already solved. The same is true, too, of certain other so-called "generalized" gonorrhœal infections. It must be understood at the outset that our present use of the word gonorrhœal in this connection does not necessarily imply that these infections are gonorrhœal in nature; it implies merely that they are probably gonorrhœal in origin—that is to say, that in some instances gonorrhœa simply opens the door to other organisms than the one that is essential to its own existence. This will appear as we proceed. A very comprehensible résumé of what is now held concerning these metastases—to use the word as a convenient expression—has been prepared by Dr. F. Balzer, and appears in the *Journal des praticiens* for September 8th. With these prefatory statements, we shall here present the substance of M. Balzer's article, adding only occasionally any comment of our own.

General gonorrhœal infection, says Balzer, is caused by the virus of gonorrhœa, the gonococcus and toxines, which penetrate into the circulation. Unless the expression "and toxines" is more comprehensive than our author's use of it seems to suggest, this statement, as we have already explained, must be taken with some reserve. Continuing, he says that the infection is manifested by general symptoms and by new localizations of the gonorrhœa and occasionally by true pyæmia analogous to that caused by the pyogenic microbes, which, for that matter, may be associated with the gonococcus or superadded to it. The microscope, he goes on to say, shows us, in the first place, the gonococcus traversing the layers of the mucous membrane in which it is embedded and reaching the vessels. The movement of secretion and of the sero-leucocytic exudation tends to drive it back toward the surface of the mucous membrane; nevertheless, it may at any moment penetrate the wall of the vessel, either free or enclosed in the leucocytes. Endangeitis may sometimes oppose a barrier to the invasion of the gonococcus, but it seems often to make its appearance without indicating any defensive movement on the part of the system.

The metastatic localizations of the infection may be of the greatest gravity; on the other hand, the symptoms may be so trivial as to pass unnoticed. The chief route pursued by the gonococcus to infect the organism is that of the blood-vessels. It has been seen in the endothelium of the vascular walls, and its presence in the blood, often observed in recent years, gives decisive proof of the general infection. Moreover, the gonococcus has many times been observed in the articular and tendinous synovial sacs, in the heart, in subcutaneous abscesses, and elsewhere.

As to gonotoxine, the experiments of several observers are cited as going to show that it is contained exclusively in the substance of the gonococcus itself; the filtrate of cultures is harmless, whereas subcutaneous injections of dead gonococci give rise to fever and inflammations in animals and in the human subject. According to De Christmas, the toxine contained in the substance of the gonococci is not diffused in the culture liquid after their death; it is the product of a vital process in the gonococcus, varying according to its development and to the properties of the culture medium. This toxine is very active, and, administered to guinea-pigs by intracerebral injection, kills them in a few hours. De Christmas has succeeded in immunizing animals and in obtaining an antitoxine capable of neutralizing the effects of the toxine. In the local manifestations the effects of the gonotoxine are added to those of the gonococcus, and the toxine seems to play the chief part in the production of certain inflammatory symptoms; in general infection its action may be independent of that of the gonococcus. In other words, adds the author, certain manifestations may be due to intoxication rather than to infection, and by this, we presume, he means that the phenomena he has in mind are not immediately due to the gonococcus, but to a poisonous product of that organism.

THE PATHOGENY OF APPENDICULAR INFLAMMATION.

THE theory that obstruction of the lumen of the vermiform appendix is a necessary element in the ætiology of inflammation and perforation of the organ is probably not now entertained to any great extent. At any rate, we think it will be difficult to uphold it after considering certain facts that have recently been brought forward by Dr. François Giraud. Dr. Giraud graduated at the Lyons School of Medicine this year, and he made the pathogeny of appendicular accidents the subject of his graduation thesis. His conclusions are published in *Lyon médical* for November 4th. He applies the term *appendicite à canal ouvert* to inflammatory lesions of the appendix unaccompanied by any constriction, alteration of shape, or the like, capable of creating a closed cavity, which Dieulafoy has maintained plays so great a part in the mechanism and the gravity of appendicular accidents.

In eighteen post-mortem examinations reported by Giraud the appendix was found with its canal perfectly free from end to end, without a trace of any band, constriction, foreign body, or the like; in a word, without any apparent mechanical cause of retention. These observations are to him convincing that infection is the fundamental element in appendicular attacks, and that the bands and strictures that are found are the results of past inflammatory affections, and not the causes of the inflammation. Before all else, the process is an infective one, often all the graver because it has given rise to no plastic reaction either of the peritonæum and the neighboring organs or in the appendix itself. In such cases the appendix is for the most part found floating loose in the abdominal cavity, and when in an operation it is so found, and there is no sign of its being deformed, our precautions against infection of the peritonæum should be redoubled. In some instances the contents of the appendix are particularly infectious, and then in removing the organ the utmost care must be taken to guard against any contact of intra-appendicular liquids with the peritonæum.

THE QUALITY OF NEW YORK'S WATER SUPPLY.

The frequent muddiness of the Croton water of late, together with the queer taste, variously described, that some persons ascribe to it, has served some of the newspapers, particularly the *Herald,* as a pretext for proclaiming that it is dangerous to drink the water. In particular, it has been suggested that there is the typhoid fever germ in the water. The sensational articles to which we allude have undoubtedly disturbed great numbers of credulous people, but we believe there is no occasion for alarm. Muddiness of the Croton water is a blemish often noticed, but it has occurred more frequently than usual during the last few months. We take it to be due in general to heavy rainfalls, which wash the soil into the streams that feed the aqueduct, and in particular instances not thus accounted for, to some unusual agitation of the water in the mains, whereby the sediment in them is stirred up and swept along by the stream of water. It has been suggested that the recent increased frequency of the muddiness is occasioned by the blasting operations that are going on on a large scale in the upper part of the borough of Manhattan, and we may readily understand that this explanation is sufficient to account for the trouble.

As to the water's containing anything of a poisonous or pathogenic nature in proportions adequate to constitute a source of appreciable danger to the community, we are very skeptical; indeed, we may say incredulous. Such large bodies of water as are contained in the Croton reservoirs do not readily undergo contamination to a dangerous degree. Nevertheless, we ought to be supplied with pure, clear water, and we can be so supplied by the practice of filtration, the desirability of which we have often insisted upon. With the pipes once cleansed and the water filtered, we should have the water clear and absolutely free of all noisome substances.

THE KEDANI DISEASE OF JAPAN.

It appears that a severe disease attributed to the bite of a special mite, called the kedani, prevails in the summer in certain agricultural districts of Japan. It is described by Tanaka (*Centralblatt für Bakteriologie, Parasitenkunde und Infektionskrankheiten,* xxvi, 14, 15; *Centralblatt für innere Medicin,* October 6th). A crust forms in the epidermis at the site of the bite, and after a period of incubation there is painful swelling of the neighboring lymphatic glands, with painless enlargement of almost all the superficial glands, a temperature curve resembling that of typhoid fever, and an eruption resembling urticaria. Without premonitory symptoms, there are repeated slight chills, and at the same time the temperature rises, and there is increased frequency of the pulse and respiration. In a few days there are severe general symptoms, together with nervous derangements. A rash appears between the third and the seventh days. The tongue is dry and coated, and bronchitis develops. There is generally great enlargement of the spleen. The appetite is progressively impaired, there is usually albumin in the urine, and death takes place in from forty to seventy per cent. of the cases between the tenth and the thirteenth days. Not everybody who is bitten takes the disease, and for the most part careful removal of the mite with a needle prevents it. One attack generally confers immunity. A variety of proteus was found by the author in the lungs in one instance, in the urinary sediment not infrequently, in the alvine dejections many times, but never in the blood or in the mite itself, sometimes mingled with the staphylococci of pustules and abscesses. This proteus proved decidedly pathogenic to mice, guinea-pigs, and rabbits. The author's theory is that this ubiquitous proteus gains access to the system through the inflamed site of the bite, but why not also, asks the abstractor (von Notthaft, of Munich), through other injuries?

THE MILK SUPPLY OF NEW YORK.

The recent action of the Medical Society of the County of New York in setting forth in the presence of a number of milk-dealers certain simple requirements calculated to protect us at least against filth in the milk brought to the city seems to have brought forth declarations from the dealers to the effect that compliance with these requirements—cleanliness of the cows, the stables, the milking-sheds, and the milkers—could be secured if the public would pay twenty-five per cent. more for milk than the present price. No doubt many people, perhaps a majority, would consent to the increase of price if only they could feel sure of getting pure and clean milk. The statement was made that preservatives were largely used, and some of them, it was added, were incapable of detection. This latter statement we are inclined to doubt. We believe that proper chemical and bacteriological examinations, systematically carried on, would soon put a stop to the trade in filthy and "embalmed" milk.

CONTAGIOUS DISEASES IN THE SUNDAY-SCHOOLS.

Dr. Wende, Health Commissioner of the city of Buffalo, has recently issued instructions to the effect that the health department must notify all Sunday-schools in the city of homes in which contagious diseases exist in the same manner as the public schools are notified. This is a most commendable step, as there is no question but that contagious diseases have very frequently been disseminated through the medium of the Sunday-school by the attendance of children living in infected houses. The example set by Dr. Wende should be followed by the health authorities in all the large cities, for, unless this precaution is taken, all the benefits of the care exercised in preventing the spread of the disease through the public schools may be vitiated.

THE BACTERIOLOGY OF WHOOPING-COUGH.

Some interesting observations concerning the bacteriology of whooping-cough, by Pottiez, were reported at a recent meeting of the Royal Academy of Medicine of Belgium (*Gazette hebdomadaire de médecine et de chirurgie,* November 8th). Although that author had found no micro-organism in the blood, he had been able to isolate two separate microbes from the bronchial secretion. One of them was a streptococcus forming chains of greater or less length, according to the medium, and forming on gelatin little rounded colonies which liquefied at the end of three days. The other was a non-liquefying micrococcus that grew very rapidly on various solid media, and cultures of it on gelatin presented a striated appearance. At the end of forty-eight hours they assumed a beautiful rose color.

THE DISTRIBUTION OF EXTRAGENITAL CHANCRE.

There were recently delivered in the Charité Hospital, Berlin, several discourses on venereal diseases before the Royal Department of Public Instruction. They are published in the *Berliner klinische Wochenschrift* for October 29th. In one of them, by Bruhns, Pospelow's statistics of the extragenital chancres observed by him in a period of ten years, 198 cases in all, are cited. These observations are not very recent, having been published in the *Archiv für Dermatologie und Syphilis* in 1889, but doubtless they may still serve a valuable purpose. There were 49 chancres on the lips (20 in men and 29 in women), 1 on the gum (in a man), 3 on the tongue (1 in a man and 2 in women), 46 in the throat (14 in men and 32 in women)—in all, 99 in and about the mouth (36 in men and 63 in women)—69 on the breast (in women), 1 on the chin (in a woman), 3 on the eyelids (in men), 1 on the nose (in a man), 10 on the trunk (in men), 5 on the anus (in women), 6 on the upper limbs (3 in men and 3 in women), and 4 on the lower limbs (in women).

A DEATH ATTRIBUTED TO X-RAY PHOTOGRAPHY.

The *Medical Press and Circular* for November 14th refers to the case of a lady who fractured the neck of her thigh bone in March last, while learning to ride the bicycle. With her own consent, her medical attendant engaged a local photographer on April 7th to take an X-ray photograph. An exposure of two hours was given, and twenty days later a second exposure of two hours and ten minutes. This latter exposure seems to have been followed by inflammation and ulceration of the abdominal parietes, and the patient became mentally unhinged, death following. The case came under the notice of the coroner for investigation, and skilled evidence was to be called. While the issue of the case cannot be prejudged, or responsibility apportioned in default of evidence, it seems desirable to call attention anew to the fact that X-ray photography has dangers, and that, therefore, the services of medical experts in its use should be procured whenever that is possible, rather than that the process should be left to the non-medical photographer.

News Items.

Society Meetings for the Coming Week:

MONDAY, *December 3rd*: New York Academy of Sciences (Section in Biology); German Medical Society of the City of New York; Morrisania Medical Society, New York (private); Brooklyn Anatomical and Surgical Society (private); Corning, N. Y., Academy of Medicine; Utica, N. Y., Medical Library Association; Boston Society for Medical Observation; St. Albans, Vermont, Medical Association; Providence, Rhode Island, Medical Association; Hartford, Connecticut, Medical Society; South Pittsburgh, Pennsylvania, Medical Society; Chicago Medical Society.

TUESDAY, *December 4th*: New York Neurological Society; Buffalo Academy of Medicine (Section in Surgery); Elmira, N. Y., Academy of Medicine; Ogdensburgh, N. Y., Medical Association; Syracuse, N. Y., Academy of Medicine; Hudson, N. J., County Medical Society (Jersey City); Androscoggin, Maine, County Medical Association (Lewiston); Baltimore Academy of Medicine; Medical Society of the University of Maryland (Baltimore).

WEDNESDAY, *December 5th*: New York Academy of Medicine (Section in Public Health); Society of Alumni of Bellevue Hospital; Medical Microscopical Society of Brooklyn; Medical Society of the County of Richmond, N. Y. (New Brighton); Penobscot, Maine, County Medical Society (Bangor); Bridgeport, Connecticut, Medical Association.

THURSDAY, *December 6th*: New York Academy of Medicine; Brooklyn Surgical Society; Society of Physicians of the Village of Canandaigua, N. Y.; Boston Medico-psychological Association; Obstetrical Society of Philadelphia; United States Naval Medical Society (Washington); Medical Society of City Hospital Alumni, St. Louis; Atlanta Society of Medicine.

FRIDAY, *December 7th*: Practitioners' Society of New York (private); Clinical Society of the New York Post-graduate Medical School and Hospital; Baltimore Clinical Society.

SATURDAY, *December 8th*: Obstetrical Society of Boston (private).

A Medical Secretary for the President's Cabinet.—Chicago's physicians do not favor the suggestion of establishing a medical secretary in the presidential cabinet. The proposition was recently raised anew by a communication from Dr. Liston H. Montgomery, of Chicago, addressed both to President McKinley and to Mr. Bryan, asking each what would be his attitude in the matter after election. No response came from the President, and one of Mr. Bryan's secretaries informed Dr. Montgomery that the presidential candidate was too busy with other matters of importance to take up the question.

Exposition Honors for "The Sanitarian."—Dr. A. N. Bell has been awarded the diploma of honorable mention for the volumes of *The Sanitarian* exhibited at the Paris Exposition.

Washington County (Md.) Medical Society.—The Washington County Medical Society recently met at Hagerstown, Md., and elected the following officers: President, Dr. D. C. R. Miller, of State Line; first vice-president, Dr. J. E. Pitsnogle, of Hagerstown; second vice-president, Dr. C. D. Baker, of Rohrersville; recording secretary, Dr. W. B. Morrison, of Hagerstown; corresponding secretary, Dr. W. Preston Miller, of Hagerstown; treasurer, Dr. C. R. Scheller.

New York State Association of Railway Surgeons.—The tenth annual convention of the New York State Association of Railway Surgeons was held recently in the Academy of Medicine, New York City. Dr. J. L. Eddy, of Olean, president, presided, while Dr. C. B. Herrick, of Troy, acted as secretary. Dr. W. L. Estes, of South Bethlehem, advocated the establishment by big trunk lines of a regular hospital car in which to carry patients suffering from contagious diseases, as was the custom in Russia.

Physicians Wish to Continue Visiting Patients in the Hospital.—The New Haven Hospital regulations prohibit a private physician from continuing to visit his patient after the patient has been received at the hospital. The New Haven Medical Society has presented a memorial to the hospital authorities asking for a revocation of this rule, and a conference on the subject is to be held this week.

Sanatoria for Consumptives in France.—A society has been founded in Paris to establish sanatoria for the care of patients suffering from diseases of the lungs. The society is capitalized with 300,000 francs. Among the physicians associated with the enterprise are Dr. Potain, Dr. Landouzy, Dr. Rendu, Dr. Brissaud, Dr. Letulle, Dr. Besnier, and Dr. Terrier.

Dr. George Heussy Dead.—Dr. George Heussy, formerly of New York City, who later made his home in Seattle, Wash., died recently in this city at the age of fifty-four. Dr. Heussy was a graduate of the University of New York, and prior to his removal from this city, in 1890, had become well known locally.

Murder of a Physician.—Dr. H. A. Hamilton, of Marysville, Iowa, was shot and killed on November 26th. A man who had accused the doctor of causing a separation between himself and his wife has been arrested on suspicion.

Small-pox in Michigan.—So many cases are reported from all over the northern peninsula of Michigan that the Governor has instructed the secretary of the State Board of Health to personally visit this district and to take active steps to prevent its spread.

Changes of Address.—Dr. Charles L. Beil, to No. 310 East Forty-third street, New York; Dr. E. F. Luhrsen, to No. 292 Greene avenue, Brooklyn; Dr. Edward M. Thompson, to No. 240 West Forty-second street, New York.

New Officers of the St. Louis Academy of Medical and Surgical Sciences.—At the last meeting of the St. Louis Academy of Medical and Surgical Sciences the following officers were elected for 1901: President, Dr. Emory Lanphear; senior vice-president, Dr. Carl Pesold; junior vice-president, Dr. H. S. P. Lare; secretary, Dr. O. L. Suggett; treasurer, Dr. G. M. Phillips; orator, Dr. William Porter, and librarian, Dr. H. G. Nicks.

The St. Louis Medical Society of Missouri.—At the last meeting, on Saturday evening, the 24th inst., the following papers were presented for discussion: Two Cases Illustrating the Transformation of Senile Warts into

Epithelioma, by Dr. G. Wiley Broome; and Gonorrhœa, its Treatment from the Present Standpoint, by Dr. Henry J. Scherk.

The Suit against Dr. Manges and Dr. Rosenberg.—The jury in the suit recently brought in New York City against Dr. Manges and Dr. Rosenberg for $60,000 damages failed to agree, the division being nine to three in favor of the physicians. The suit arose from a simple curettage to stop severe hæmorrhage in a woman with large fibroid tumors of the uterus.

Death of Professor Quinlan.—The death of Dr. Quinlan, professor of materia medica, therapeutics and pharmacy in the medical school of the Catholic University of Dublin, took place on November 9th. Dr. Quinlan was a scholarly man, and his contributions to medical literature were considerable.

The Section on Obstetrics and Gynæcology of the New York Academy of Medicine met on Thursday evening, November 22d, at the academy, when papers were read on The Abdominal *versus* Vaginal Hysterectomy for Cancer of the Uterus, by Dr. W. R. Pryor and Dr. H. J. Boldt. The discussion was participated in by Dr. J. E. Janvrin, Dr. William M. Polk, Dr. Clement Cleveland, Dr. H. C. Coe, Dr. G. M. Edebohls and others.

The Pan-American Medical Congress.—The third Pan-American Medical Congress, which takes place at Havana from December 26th to December 29th, will consist of sixteen sections. The new steamer *Morro Castle*, which will probably take many of the New York, Buffalo, Boston and Philadelphia delegates, will leave New York on Saturday, December 22d, arriving in Havana on the 25th, remaining there during the four days of the congress, and arriving in New York on Tuesday, January 2d. The time required for the passage each way is three days, and not five as stated in a previous announcement.

The Southern Surgical and Gynæcological Association.—At the recent annual meeting of this association, held in Atlanta, the following officers were elected: President, Dr. Manning Simmons, of Charleston, S. C.; first vice-president, Dr. George H. Noble, of Atlanta; second vice-president, Dr. L. C. Bosher, of Richmond, Va.; secretary, Dr. W. O. Haggard, of Nashville, Tenn.; treasurer, Dr. Floyd W. McRae, of Atlanta; general council, Dr. George J. Engelmann, of Boston; Dr. Ernest S. Lewis, of New Orleans; Dr. George B. Johnson, of Richmond; Dr. L. McLane Tiffany, of Baltimore, and Dr. Louis S. McMurtry, of Louisville.

The Tri-State Medical Association.—The association, comprising representatives of the States of Tennessee, Arkansas and Mississippi, which recently held a three days' session at Memphis, Tenn., elected the following officers for the ensuing year: Dr. I. M. Swain, of Paris, Tenn., president; Dr. J. B. McElroy, of Mississippi, first vice-president; Dr. W. B. Burns, of Arkansas, second vice-president; Dr. Jere L. Crook, of Tennessee, third vice-president; Dr. Richmond McKinney, secretary; Dr. Marcus Haas, of Memphis, treasurer.

Arrested for Swindling Physicians.—A man who gave the name of William A. Ferguson recently called upon Dr. William M. Polk and requested financial assistance on the ground that he had been practising medicine in Galveston and that all of his property and family had been destroyed by the flood. Dr. Polk recognized the man as having requested charity of him a year ago on the plea that he had lost all his property in a fire in Michigan, and ordered him out of his house. He notified several of his friends by telephone of the circumstance, among whom was Dr. George E. Jarman. Shortly after the receipt of the telephone message, Ferguson presented himself at Dr. Jarman's office and was given a marked dollar bill, was followed when he left and was turned over to the police. At the station-house it was found that the prisoner corresponded to the description of a man who impersonated Dr. W. Peyre Porcher, of Charleston, and concerning whom a warning was published in the editorial columns of the *New York Medical Journal* for November 24th.

A Medical College Founded at Oakland, Cal.—The Oakland College of Medicine and Surgery has been incorporated at Oakland, Cal., with a capital of $50,000. The incorporators of the new college, who will serve as the first board of directors, are: Dr. Frank L. Adams, Dr. J. S. Eastman, Dr. Carl Krone, Dr. Hayward G. Thomas and Dr. D. D. Crowley. Dr. Adams is president and Dr. Krone secretary. Dr. S. H. Buteau, Dr. Robert T. Stratton, Dr. W. S. Porter, Dr. O. D. Hamlin, Dr. E. N. Ewer, Dr. J. L. Milton, and Dr. W. F. B. Wakefield were associated with the physicians named in the work of organization.

The following have been re-elected as members of the faculty: Dr. D. D. Crowley, M. D., professor of principles and practice of surgery; Dr. Frank L. Adams, M. D., professor of clinical surgery; Dr. Joseph S. Eastman, A. M., M. D., professor of principles and practice of medicine; Dr. Carl R. Krone, A. M., M. D., professor of pathology; Dr. Hayward G. Thomas, A. M., M. D., professor of ophthalmology and otology; Dr. S. H. Buteau, M. D., professor of gynæcology; Dr. W. F. B. Wakefield, M. B., M. D., C. M., professor of clinical gynæcology; Dr. R. F. Stratton, M. D., professor of nervous diseases and cerebral surgery; Dr. Edward M. Ewer, M. D., professor of obstetrics; Dr. W. S. Porter, M. D., professor of surgical anatomy; Dr. J. L. Milton, M. D., professor of anatomy; Dr. Oliver D. Hamlin, M. D., professor of visceral anatomy.

This does not complete the faculty. Other professorships will be named by the members later on, subject to the approval of the board of directors. It is expected that the college will be ready for students by next September.

Infectious Diseases in New York.—We are indebted to the Sanitary Bureau of the Health Department for the following statement of cases and deaths reported for the two weeks ending November 24, 1900:

DISEASES	Week end'g Nov. 17		Week end'g Nov. 24	
	Cases.	Deaths.	Cases.	Deaths.
Typhoid fever	86	17	79	22
Scarlet fever	91	1	133	3
Cerebro-spinal meningitis	0	5	0	5
Measles	53	3	46	0
Diphtheria	226	25	277	35
Small-pox	1	0	1	1
Tuberculosis	292	147	211	139
Varicella	12	0	10	0
Laryngeal diphtheria (croup)	16	14	15	15

Marine-Hospital Service.—*Official List of the Changes of Stations and Duties of Commissioned and Non-commissioned Officers of the United States Marine-*

Hospital Service for the Seven Days ending November 22, 1900:

Bahrenburg, L. P. H., Assistant Surgeon. Relieved from duty at Liverpool and directed to proceed to New York and report to Surgeon L. L. Williams at the Immigration Depot for duty.

Cofer, L. E., Assistant Surgeon. Directed to rejoin station at Los Angeles, California.

Gibson, L. P., Acting Assistant Surgeon. Granted leave of absence for ten days from November 13th.

Goodman, F. S., Hospital Steward. Granted leave of absence for thirty days from December 19th.

Hobdy, W. C., Assistant Surgeon. Granted extension of leave of absence for two weeks from November 3d.

Lavinder, C. H., Assistant Surgeon. Granted leave of absence for two months from November 20th.

Stoner, J. B., Passed Assistant Surgeon. Relieved from duty at Quebec and directed to proceed to Norfolk, Virginia, and assume temporary command of the service during the absence of the medical officer.

Thomas, A. R., Passed Assistant Surgeon. Granted leave of absence for one month.

Wickes, H. W., Passed Assistant Surgeon. Granted leave of absence for seven days from November 28th.

Army Intelligence.—*Official List of Changes in the Stations and Duties of Officers serving in the Medical Department, United States Army, from November 17 to November 24, 1900:*

Bratton, Thomas S., Captain and Assistant Surgeon, United States Army, is assigned to duty on the *Pakling* during the voyage to China and return to Manila, relieving Minor, John F., Acting Assistant Surgeon, who will report to the commanding general, Department of Northern Luzon, for duty.

Harvey, Philip F., Major and Surgeon, United States Army, will proceed to Zamboanga, Mindanao, as chief surgeon, relieving Johnson, Richard W., Major and Surgeon, who will proceed to Iloilo, Panay, Philippine Islands.

Havard, Valery, Major and Surgeon, United States Army, is granted leave of absence for one month, with permission to go beyond sea.

Thomason, Henry D., Major and Surgeon, United States Volunteers, is honorably discharged from the service of the United States, to take effect December 31, 1900.

Webb, Walter D., Captain and Assistant Surgeon, Forty-third Infantry, having accepted an appointment of assistant surgeon, United States Army, with the rank of first lieutenant, is discharged from the volunteer service only of the United States, to take effect from November 12, 1900.

Naval Intelligence.—*Official List of Changes in the Medical Corps of the United States Navy for the Week ending November 24, 1900:*

Dunbar, A. W., Passed Assistant Surgeon. Detached from the *Monongahela* and ordered to the *Vermont* for temporary duty with the crew of the *Wisconsin*, and then to the Naval Hospital, Mare Island, California.

Kennedy, J. T., Assistant Surgeon. Detached from the *Monocacy* and ordered to the Cavite Naval Station, Philippine Islands.

Williams, R. B., Assistant Surgeon. Appointed assistant surgeon from November 17, 1900.

Marine-Hospital Service Health Reports.—The following cases of small-pox, yellow fever, cholera and plague, were reported to the surgeon-general during the week ending November 23, 1900:

Small-pox—United States.

Prince George Co., Maryland	Nov. 9-14	9 cases.	
Detroit, Michigan	Nov. 10-17	1 case.	
Grand Rapids, Michigan	Nov. 10-17	1 case.	
Minneapolis, Minnesota	Nov. 10-17	3 cases.	
Manchester, New Hampshire	Nov. 10-17	10 cases.	
New York, New York	Nov. 10-17	1 case.	
Cleveland, Ohio	Nov. 10-17	19 cases.	1 death.
Memphis, Tennessee	Nov. 10-17	1 case.	
Houston, Texas	Oct. 31—Nov. 7	6 cases.	
Salt Lake City, Utah	Nov. 10-17	20 cases.	
Alexandria, Virginia	Nov. 18	1 case.	

Small-pox—Foreign.

Prague, Austria	Oct. 20-27	8 cases.	
Pernambuco, Brazil	Sept. 23-30		15 deaths.
London, England	Oct. 27—Nov. 3	1 case.	
Paris, France	Oct. 27—Nov. 3		14 deaths.
Calcutta, India	Oct. 13-20		6 deaths.
Nagasaki, Japan	Oct. 11-20	1 case.	
Vera Cruz, Mexico	Nov. 3-10		1 death.
St. Petersburg, Russia	Oct. 20-27	3 cases.	3 deaths.
Glasgow, Scotland	Nov. 2-9	31 cases.	

Yellow Fever—United States

Brookhaven, Mississippi	Nov. 16	Many cases.	
Natchez, Mississippi	Nov. 22	2 cases.	

Yellow Fever—Foreign.

Bocas del Toro, Colombia	Oct. 31—Nov. 7	3 cases.	
Cartagena, Colombia	Oct. 28—Nov. 4	1 case.	1 death.
Havana, Cuba	Nov. 3-10		15 deaths.
Matanzas, Cuba	Nov. 15	1 case.	Hamilton Barracks.
Vera Cruz, Mexico	Nov. 3-10		6 deaths.

Cholera.

Bombay, India	Oct. 16-23		10 deaths.
Calcutta, India	Oct. 13-20		17 deaths.
Madras, India	Oct. 13-19		37 deaths.
Novolievsk, Siberia, Russia	Nov ——	Reported.	
Singapore, Straits Settlements	Sept. 15-22		1 death.

Plague—Foreign.

Hong Kong, China	Oct. 6-13		4 deaths.
Bombay, India	Oct. 16-23		74 deaths.
Calcutta, India	Oct. 13-20		15 deaths.
Madras, India	Oct. 13-19		1 death.
Kobe, Japan	Oct. 8-23	2 cases.	
Osaka, Japan	Oct. 8-23	3 cases.	

Births, Marriages, and Deaths.

Born.

Luhrsen.—In Brooklyn, on Friday, November 23d, to Dr. and Mrs. E. F. Luhrsen, a daughter.

Merriman.—In Scranton, Pennsylvania, on Friday, November 16th, to Dr. and Mrs. G. C. Merriman, a daughter.

Varner.—In Union Star, Missouri, on Wednesday, November 14th, to Dr. and Mrs. A. O. Varner, a daughter.

Married.

Brenneman—Undegraff.—In Steubenville, Ohio, on Wednesday, November 21st, Dr. Richard E. Brenneman and Miss Alice M. Undegraff.

Fowler—Denman.—In New York, on Tuesday, November 27th, Dr. Edmund Prince Fowler and Miss Mabel Denman.

Hammerbacher — Plitt. — In Baltimore, on Wednesday, November 21st, Dr. G. Herman Hammerbacher and Miss Gertrude Plitt.

McCollom—Kress.—In Brooklyn, on Wednesday, November 7th, Dr. Lucian R. McCollom, of Whitestone, New York, and Miss Ada Kress.

Ramsburgh — Roberts. — In Washington, on Wednesday, November 21st, Dr. Jesse Ramsburgh and Miss Edith Roberts.

Smith—Kinney.—In Roxbury, Massachusetts, on Monday, November 26th, Mr. Philip Sidney Smith and Miss Leonore Willis Kinney, daughter of Dr. John Edgar Kinney.

Stearns—Barber.—In New York, on Saturday, November 24th, Dr. Henry E. Stearns, of Bradford, Pennsylvania, and Mrs. May Barlow Barber.

Wilson—Cunningham.—In St. Louis, on Wednesday, November 21st, Dr. Robert E. Wilson and Miss Grace Cunningham.

Died.

Bright.—In Richmond, Virginia, on Tuesday, November 20th, Dr. George H. Bright, in the sixty-fourth year of his age.

Curtis.—In Joliet, Illinois, on Tuesday, November 20th, Dr. Romaine Curtis, aged fifty-eight years.

De Mund.—In Bensonhurst, Long Island, on Tuesday, November 20th, Dr. Frederick Cornell De Mund, in the seventy-first year of his age.

Holstein.—In Florence, Louisiana, on Monday, November 19th, Dr. John S. Holstein, aged twenty-eight years.

Jordan.—In Riegelsville, Pennsylvania, on Friday, November 23d, Dr. A. S. Jordan.

Mahneke.—In Pittsburgh, on Sunday, November 18th, Dr. William F. Mahneke, aged fifty years.

Potbury.—In Washington, on Tuesday, November 20th, Dr. Edwin Potbury, Jr.

Swan.—In Westbrook, Maine, on Sunday, November 18th, Dr. John Swan, in the sixtieth year of his age.

Toboldt.—In Philadelphia, on Friday, November 23d, Dr. A. L. Toboldt, in the forty-ninth year of his age.

Young.—In Titusville, Pennsylvania, on Thursday, November 22d, Dr. Theodore J. Young, aged sixty-eight years.

Obituaries.

RUFUS PRATT LINCOLN, M. D.

Dr. Lincoln died at his home, in New York, on Tuesday, November 27th, at the age of fifty-nine. He was a native of Massachusetts and served in the line throughout the civil war, rising to the rank of colonel. He studied medicine at the College of Physicians and Surgeons, in New York, in 1865 and 1866, and graduated from the Harvard Medical School in 1868. After serving in the Massachusetts General Hospital, he returned to New York and entered upon practice here in 1869. He remained in active practice up to the beginning of his last illness.

Dr. Lincoln devoted his attention especially to diseases of the throat, and was president of the American Laryngological Association from 1887 to 1888. He has also served as president of the Harvard Medical Society, of New York.

He was almost a unique man in the profession in some respects, for he gave strict attention to his practice, which was enormous, without adopting any of the devices—such as working in public clinics, lecturing, and making frequent contributions to literature—which are commonly thought to facilitate the acquisition of a commanding position in medicine. He did, indeed, contribute occasionally to the journals, and his articles were always of value. In our issue for October 27th we published one of them, entitled Supplementary Report on a Recurrent Tonsillar Tumor, which was probably the last one prepared by him for publication. Dr. Lincoln was a man who enjoyed the respect, confidence, and regard of the profession and the community to an uncommon degree.

Pith of Current Literature.

Medical News, November 24, 1900.

Œdema Bullosum Vesicæ. By Dr. Frederic Bierhoff.—This is the most characteristic and interesting form of œdema of the bladder, and the description of Kolischer, classic in its exactness, cannot be improved upon. The author has observed, in all, fifteen cases of the typical œdema bullosum. Where it occurred as an accompaniment of carcinoma (four cases), the latter had, in every case, spread from the uterus to the parametrium and thence to the bladder wall. In the four cases of catarrhal cystitis colli, as also in those of suppurative and gonorrhœal character (two), and in the one of urethritis, the circumference of the sphincteric margin was marked by discrete, transparent vesicles. In one case, the trigone also was affected; the rest of the bladder was normal. The author does not ascribe decided diagnostic value to this phenomenon, but he agrees with the views of Kolischer and Casper, that its presence denotes the extension of an inflammatory or infiltrative process to the bladder wall, and its approach toward the mucous surface.

The Operative Treatment of Ugly Ears. By Dr. John B. Roberts.—All surgeons should study with some degree of earnestness the correction of auricular defects. Operative treatment for the correction of these conditions is free from risk, and is usually unaccompanied by confinement to bed, or even absence from business pursuits. The author is explicit in his directions, but it would seem that a slight degree of ingenuity is all that is requisite in most cases.

The Hydriatic Treatment of Tuberculosis. By Dr. J. H. Kellog.—This article is the concluding one of a series on the subject. The author summarizes the essential features of hydrotherapy as applied to pulmonary tuberculosis, as follows: 1. Both general and local cold applications to the skin. 2. Careful graduation of the intensity, duration and frequency of the application, by modifying the temperature and mode of procedure, keeping always within the limits of the patient's ability to react. The best methods are dry friction, wet hand-rubbing, wet mitten-friction, cold towel-rubbing, wet sheet-rubbing, half baths, the general douche. 3. The application of compresses, hot and cold, as a means of relieving pain and controlling the local blood supply, especially the use of the chest-pack to relieve cough and to aid the tissues in combating the disease, and the employment of the hot sponge-bath and various other hydriatric means for relieving special symptoms.

A dry elevated region is a condition essential for the best results in a majority of cases. It is possible, however, to effect a cure without this advantage.

Absorption, Motility and Digestive Power of the Stomach. By Dr. A. E. Austin.—Undue importance is being attached to the secretory power of the stomach. If hydrochloric acid is wanting, its loss is not seriously felt; if hyperacidity, or rather hyperchlorhydria is present, the digestion is not seriously affected. Lack of motility, or gastric insufficiency, on the contrary, causes vastly more serious disturbances of digestion, and, consequently, of nutrition. If, after a Ewald meal, more than forty cubic centimetres are withdrawn, it shows lack of motility, while the residual albumose peptone may be taken as a measure of absorption. 1. No examination of the stomach is complete without testing its absorptive power. 2. Retardation of absorption does not occur with simple hypotomy, or gastric insufficiency without dilatation; this may account for absorption being sometimes deficient and sometimes normal with gastric insufficiency. 3. In order to distinguish between a good absorption and a poor digestive power, the latter must always be tested.

The Nature Treatment of Tuberculosis. By Dr. R. O. Beard.—The author favors the establishment of sanatoria, and the enforcement of physiologic rest, together with forced feeding—as to quantity—with due regard to physiologic intervals of digestive repose. The world is indebted to Dr. Walther, of Nordrach, in the Black Forest, for an object lesson in this Nature treatment, and for a demonstration of the results of a judicious combination, with favorable climate, of other hygienic conditions.

Journal of the American Medical Association, November 24, 1900.

Appendicitis. By Dr. Joseph Price.—The number of athletes requiring the removal of the appendix is surprising. The author believes it is for the best that the general practitioner has not as much confidence in therapeutics and delay as he had a few years ago, and he says that if we made it a practice to operate when the trouble is first recognized, without the delay of a day or more for consultations and for therapeutical treatment, the deaths would be very few. It is the so-called very conservative man who gives us the ugly abscess class of cases, and the virulent, perforative cases at the eleventh hour.

Post-operative Treatment of Abdominal Section in Women. By Dr. Walter B. Chase.—In the closing of the abdominal incision we may choose between silkworm gut, silk, and silver wire. If layer suturing is followed, catgut or kangaroo tendon should be employed. Chromicized catgut is an ideal suture from the standpoint of sterility. Through-and-through interrupted sutures should carefully approximate the structures; too often they are tied too tightly. Buried unabsorbable sutures ought never to be employed. As to the position after operation the patient's comfort should be considered, and regulations should not be too rigid. A high enema of a pint of hot normal salt solution, containing an ounce of whiskey, is of use if evidences of shock are present just before the close of operation. Filling the blood-vessels with saline solution for the relief of hæmorrhage is a brilliant measure of conservative surgical procedure. To leave a pint or quart of hot salt solution in the peritoneal cavity is good practice to diminish the intense thirst. The statement that drainage after laparatomy means imperfect surgery, is illogical and dangerous, and though it is far less a necessity in these days, every case must be decided on its own merits. Post-operative nausea, if due to reversed peristalsis and associated with bilious vomiting and diminished peristalsis, calls for the use of salines. As early feeding as is consistent with the patient's condition is advocated. Persistent dry cupping over the kidneys, salines, calomel, and, if blood pressure is diminished, the use of digitalis, will usually restore the secretion of urine. Never resort to morphine or opium. If some anodyne is needed, give codeine from one-quarter of a grain up. Tonics like quinine, strychnine, and iron will find their appropriate sphere of usefulness.

The Value of Blood Examination for Diagnostic Purposes. By Dr. Julian W. Brandeis.—In this paper the author accomplishes his purpose, which is to demonstrate what a valuable aid to diagnosis and prognosis is afforded by the microscopical examination of the blood. Little is required in the way of apparatus, and only a moderate amount of skill is necessary to master the technique. Chlorosis, anæmia—secondary and pernicious, leukæmia—myelogenous and lymphatic, Hodgkin's disease, malaria and relapsing fever are but a few of the diseases in which blood examination is essential to diagnosis.

Differential Diagnosis between Abdominal Typhoid and Appendicitis by means of Iodine Reaction. By Dr. Siegfried Weiss.

Modes of Infection of the Maxillary Sinus. By Dr. M. H. Cryer, D. D. S.—The author believes that it is through the common communication between the frontal sinuses, the ethmoidal cells, and the maxillary sinus, that infection is generally conveyed to the antrum from the cells and sinuses above it. He recognizes, at the same time, that the posterior ethmoidal and sphenoidal cells and the cells of the orbital process of the palate bone, can also infect the antrum by the resorption of the partition between these cavities.

Syphilis of the Upper Air-tract. Some Remarks on its Diagnosis and Treatment. By Dr. George L. Richards.—The author has found potassium iodide (from five to ten grains three or four times a day) of use, together with the protoiodide of mercury, a quarter of a grain. The treatment should be kept up for two years. Operative measures, such as dilation and cutting away the adhesions, seem to be of little use. The worst adhesions are those between the soft palate and pharynx.

A Plea for Greater Simplicity in Therapeutics. By Dr. Louis Faugères Bishop.

Therapeutic Progress. By Dr. J. Tracy Melvin.

The Physician as a Scientist. By Dr. N. Senn.

The Danger of Spinal Anæsthesia. By Dr. John V. Shoemaker.—The drug is likely, in excessive doses, to disturb seriously the innervation of the heart and lungs, to depress the circulation, cause rapid and weak cardiac action, and to render the respiration labored and shallow, while in some instances it produces thrombi and emboli. Severe toxic manifestations are not always fugitive. The drug is very treacherous.

The Treatment of Adenoid Vegetations of the Nasopharynx. By Dr. Otto T. Freer.

Tuberculosis of the Testicle, with Special Consideration of its Conservative Treatment. By Dr. John B. Murphy.

Philadelphia Medical Journal, November 17, 1900.

The Ætiology of Yellow Fever. By Surgeon Eugene Wasdin, U. S. M.-H. S.—This is another addition to the controversial literature *in re Bacillus icteroides.* The author takes issue with Dr. Charles Smart, of the army, who contends that *B. icteroides* is not the ætiological factor in yellow fever, and who adduces in support a letter written by Lutz (San Paulo, Brazil) denouncing it because it is neither antitoxic nor germicidal *in vitro;* presuming, therefore, that it is inert. Sanarelli and his supporters accept these facts presented by Lutz, but they do not accept the contention. The facts in regard to the Roux *serum antipesteuse* are analogous. Antiplague serum is neither antitoxic nor germicidal *in vitro,* yet, when injected, it induces such changes in the cells of *B. pestis* that the phagocytes can engulf them and bear them away. In this connection the experience of Calmette and Salembini is referred to. Dr. Reed and Dr. Carroll, who failed to isolate *B. icteroides,* are confronted with the testimony of Sanarelli, Archinard, Potier, and lastly that of their own colleague, Lutz, who, employing their own faulty technics, isolated, it in one-third of the cases. The paper ends with the positive statement that yellow fever can not be taken from the list of acute infections and placed in that of the artificial, or accidental, infections.

Carcinoma of the Rectum. By Dr. John B. Deaver.—The rectum is one of the most common sites of malignant disease, especially in men. Its ætiology is obscure; neither age nor heredity seems to possess much significance in this connection. In 41,838 necropsies at the Vienna General Hospital, there were 162 cases of carcinoma of the rectum. The two varieties, squamous and cylindrical epithelioma, are found. The squamous, when present, which is very rarely, is situated at the mucocutaneous junction of the anus. The majority of carcinomata of the rectum are of the cylindrical cell variety, developing from the epithelial lining of the glands, but some of them arise from the surface epithelial cells of the rectum. When the growth involves the terminal part of the rectum and includes the anus, it should be removed through the perinæum, and the mucous membrane of the bowel stitched to the skin margin of the circular perineal incision. If the anus is unaffected, the growth should be removed through a posterior median incision, taking away the coccyx, and, if necessary, the last one or two segments of the sacrum. When the growth occupies a higher portion of the rectum, three or four segments of the sacrum may have to be removed, and end-to-end union of the divided bowel practised. The author regrets that it is not permissible to remove the lymphatic glands of the mesosigmoid, thus cutting off the lymphatic circulation. An early and radical operation should be done in all cases.

Acute Hæmorrhagic Encephalitis. By Dr. Charles Dewey Center.—A case of multiple terminal-twig hæmorrhage of the cortical system of the right side of the brain, followed by transient left hemiplegia, petit mal, and later generalized convulsions. Operation. Recovery. The chief point of interest in this case was the difficulty of making a positive diagnosis. The majority of symptoms pointed to one or more of four diseases: Epilepsy, cerebral hæmorrhage, cerebral thrombosis, and uræmia, also of idiopathic non-suppurative encephalitis, and cerebral œdema. The admirable table of differential probabilities in Church's work on nervous diseases is commended highly for use as an aid to diagnosis in these obscure cases.

Idiopathic Phlegmonous Gastritis. By Dr. Francis P. Kinnicutt.—In this case, that of a man, forty-four years old, in which death occurred after an interval of sixteen hours after the man's admission, during which period large quantities of a yellowish-brown fluid were repeatedly vomited, the bacteriological examination showed the practically universal presence of a streptococcus. It was most abundant in the connective tissue of the submucosa and muscularis. Few or no cocci were to be found inside the leucocytes. The lymphatics contained not so many cocci as bacilli.

Aneurysm of Spermatic Artery Simulating Oblique Inguinal Hernia. By Dr. S. W. Miller.—A sausage-like tumor was found, upon examination, extending along the length of Poupart's ligament and down into the scrotum, which was swollen to the size of an orange. A gangrenous condition had supervened, and, although the cord was followed to the internal ring and amputated, the operation was of no benefit, and the patient died late the same day. The autopsy disclosed a tumor of the size of a goose's egg, purplish in color, of the consistence of gelatin, situated behind the peritonæum—an aneurysm of the spermatic artery presenting at the internal abdominal ring.

Note on Specimen Showing a Small Saccular Aneurysm on an Accessory Branch of the Right Renal Artery. By Dr. Maude E. Abbott.

Venous Thrombosis in Heart Disease. By Dr. William W. Ford.

November 24, 1900.

Conveyance of Yellow Fever Infection. By Dr. J. O. Cobb (Passed Assistant Surgeon, M. H. S.).—Another contribution to the highly interesting controversial literature on the subject of the ætiology of yellow fever. In regard to Dr. Sternberg, Dr. Reed, and their assistants, the author and his colleagues are not prepared to accept their mere negative positions as disproving the validity of the Sanarelli germ as the cause of yellow fever, or as establishing the identity of this germ with Sternberg's Bacillus X. The mosquito theory cannot be accepted until the work of Wasdin, Geddings, and others, is disproved by careful and thorough laboratory work. Personally, however, the author is prepared to believe that mosquitoes, bedbugs, and even fleas may convey this disease. In practical experience, the Marine-Hospital officers have shut up the disease and prevented its spread under the most discouraging circumstances, and even in the presence of mosquitoes. We should not lose sight of the fact that the *cordon sanitaire* can confine the disease to narrow limits.

The Occurrence of Malta Fever in Manila. By Dr. Richard P. Strong (Assistant Surgeon, U. S. Army) and W. E. Musgrove.—Being convinced from their post-mortem experience that Malta fever was not a very uncommon disease in Manila, the authors began to look for it clinically, and found in one week three cases, which gave marked reaction with *Micrococcus melitensis* in high dilutions. One of these cases was diagnosticated malarial remittent fever, though never could any malarial plasmodia be found in the blood, and the patient had had repeated attacks of fever, while bispyrexia still persisted. The other two cases were both diagnosticated as typhoid fever with relapse. Neither of these gave the Widal reaction, nor were any malarial parasites present.

History of a Case of Removal of a Retrobulbar Lymphosarcoma, with Preservation of Normal Vision. By Dr. Charles A. Oliver.—There was a mass on the left side over the course of the internal carotid, completely filling the left nasopharynx, and tonsillar and lower pharyngeal regions, extending into the median line. The mass appeared to be uneven and dark red in color, and showed the hæmorrhagic area whence the blood was oozing. There was no apparent pulsation, and the mass appeared hard and firm to the touch. There were frequent hæmorrhages from the nose and mouth. The sympathetic paralysis involving the left eye—the result of pressure—was a symptom which the author believed was often present in tumors of this location. The diminution of the red blood corpuscles and hæmoglobin and the presence of leucocytosis were also interesting features of the case.

A New Aseptic Ether and Chloroform Inhaler. By Dr. Ernest Laplace.—This consists of two oval cones, joined by a hinge and fastening with a clasp. The inner cone is made of wire netting, and the outer cone is of solid metal, in the centre of which is an opening shaped like a cross. Ordinary sterilized gauze or cheese-cloth is placed between the two cones. The manner of its use is obvious.

A New Phimosis Forceps. By Dr. W. T. Baird.

Medical Record, November 24, 1900.

On Apparent Tumors of the Abdomen. By Dr. Max Einhorn.—These tumors, easily palpated, not caused by real neoplasms, however, but by an abnormal position of the abdominal viscera or an abnormal condition of parts of the abdominal muscles, are not so very rare. Yet, the literature upon the subject is scanty. Ætiologically speaking, they occur principally with pronounced enteroptosis. Great emaciation and the removal of certain abdominal organs (uterus, ovaries, etc.), which are of such great importance in the development and increase of enteroptosis, are also important factors in the development of the picture of apparent tumor. As to treatment: The apparent tumor itself does not need any curative measures. The original disease must be determined and treated according to rational methods. Two points, however, are of importance: (1) the attention of the patient must be diverted from the existence of the tumor, or the patient's mind must be assured; (2) sufficient nourishment must be prescribed and be persisted in. Sitophobia is present in a great number of cases, and this must be overcome according to the principles laid down in the author's article on The Diet of Dyspeptics. Illustrative cases accompany the text.

Myasthenia Gravis, with Clinical Report of Case. By Dr. Sanger Brown.—Thirty-five and twenty-four years are the customary ages of onset for men and women, respectively, while their liability is about equal. Some prostrating disease usually precedes the affection, and anæmia is often met with in women. Alcohol, syphilis, and heredity are of no special significance. The main characteristic is profound exhaustion of the functionally grouped voluntary muscles upon comparatively slight exercise. Muscles of deglutition are weak; pharyngeal reflex is diminished or absent. Characteristic alterations in speech are almost invariable, and the words grow more and more indistinct, until the patient is finally forced to desist from sheer exhaustion. The diagnosis is easy when the peculiar exhaustion appears in the external ocular muscles, the tongue, and the muscles of mastication, and when the peculiarities in speech are manifest. When the respiratory muscles are involved, they cannot recuperate by rest, and thus a fatal result may ensue. Of sixty cases, twenty-three ended fatally; the average duration of the disease being one and a half years. Nitrate of strychnine hypodermically in one-fifteenth-of-a-grain doses daily ought to prove beneficial. All general measures calculated to maintain a high standard of general health should, of course, be employed. The author's case was in a female, twenty-nine years of age, of regular habits and good health prior to present illness. The case was typical.

Notes on Typhoid Fever, with a Report of Fifteen Cases. By Dr. D. E. Keefe.—The Brand treatment was not carried out on account of lack of facilities, and because of the author's unwillingness to resort to such radical treatment in any but very grave cases. The application of cold was effected by ice in rubber bags to the head and abdomen. In the most severe case, a cold coil was constantly applied to the abdomen. The only tangible effect of the digitalis administered was to produce a great increase in the excretion of urine; and of strychnine, that it accentuated the effect of the digitalis. The diet consisted for the most part of milk, varied or supplemented by beef tea, thin broths, thin gruels, and egg water as demanded by different indications.

The Value of Thermal Carbonated Saline Baths in Gynæcology. By Dr. S. W. Bandler.—The results obtained in practice seem to justify the author in claiming for these carbonated saline baths a power of resorption too valuable to be underestimated, a method which at the same time benefits the general state to a decided degree, and acts by increasing the natural and effective functions of the body, as well as in toning up those pelvic structures which depend so decidedly for their elasticity and blood supply on the condition of the body generally.

A Simple Method for Writing Prescriptions for Children. By Dr. Max Huhner.—Cowling's Rule is: Divide the age at the next birthday by 24. In order to avoid much calculation, the author suggests that the prescription should contain exactly twenty-four doses, and the entire amount of the drug in any prescription will be the adult dose multiplied by the age at next birthday.

A Method for the Determination of Eye Defects in School Children, with a Report of Seventeen Hundred and Forty-seven Examinations. By Dr. Louis C. Deane.

On the Analogy between Nervous Conductibility and the Electric Conductibility, and their Relation to the Functional Neuroses. By Dr. A. D. Rockwell.

Boston Medical and Surgical Journal, November 22, 1900.

Diphtheria Bacilli in Healthy Throats and Noses, with Report of Cases. By Dr. Francis P. Denny.—Diphtheria bacilli are seldom found in the throats of those who have not been exposed to diphtheria. They are more frequently found in those who have been exposed, especially in persons living under poor hygienic conditions or in institutions. The conditions in institution life which favor the growth of the bacilli in healthy throats are the living together of a large number of persons in a limited air space. Healthy individuals with virulent bacilli in their throats can spread the disease, and ought, therefore, to be detected and isolated. Cultures ought to be made among those who have been exposed to diphtheria: (*a*) by physicians among the members of a family who have been exposed; (*b*) by inspectors in the schools; (*c*) by health officers whenever they think the disease is being or may be spread by such individuals.

Chronic Diffuse Interstitial Nephritis. By Dr. Charles J. Enebuske.—A slight amount of albumin and an occasional cast may occur in the urine without any renal lesion being demonstrable, even after continuous observation. The high-tension pulse and the attenuated aortic second sound exist apparently as a mere function of years, from early middle age in a number of instances, without any demonstrable renal lesion, while the dislocated apex-beat and increased cardiac dullness may indicate an idiopathic cardiac hypertrophy without renal disease. No certain diagnosis can be made from any formula of symptoms or signs, and repeated examinations should be made during a sufficient length of time to establish the persistency of all suspicious symptoms. In treatment, avoid irritation of the kidney and overwork of the heart. Adapt the diet to the condition of the individual case. Keep the skin active and regulate the bowels. While physical and mental overwork and worry should be excluded. Mercury, iodide of potassium, and, in anæmic cases, iodide of iron may be tried. Nitroglycerin and chloral hydrate are of use in reducing arterial tension and dilating the arteries. When the compensation is failing, the indications are: 1. To increase the systolic stroke of the heart. 2. To relieve the venous hyperæmia of the abdominal organs and the lungs, when such exists. 3. To relieve the œdema.

A New Spinal Jacket. By Dr. Edward A. Tracy.—The basic material of this jacket is wood, plastic splint material, and the jacket may be molded upon the body of the patient, or upon a plaster cast of the body. The latter plan seems to be preferable. After being formed, the brace should be coated with some material impervious to moisture, such as gutta percha or celluloid. The distinguishing features of this jacket are its lightness, cleanliness, rigidity, and durability.

Some Observations on Renal Casts. By Dr. Walter E. Tobie.—Referring to life insurance practice, the author questions the advisability of making the presence of casts a standard for refusal to insure, believing, however, that it should constitute a reason for a more searching examination regarding the eliminating functions of the kidneys.

British Medical Journal, November 17, 1900.

A Clinical Lecture on Varix. By W. Thorburn, F. R. C. S.—Varix of the lower extremity is one of the commonest of diseases. It may be defined as a permanent dilatation of a vein.

Ætiology.—I. The resisting capacity of the vein may be decreased owing to (a) lack of external support; (b) weakness of the wall or of the valves due to congenital peculiarities or acquired defects.

II. The distending force of the contained blood may be increased by: (a) An obstacle to the escape of the blood from the veins, such as diseases of the heart, lungs and liver, and local pressure upon veins or gravitation; (b) an increased afflux of blood from the arteries and capillaries.

These may be reduced to: (1) congenital enlargement or weakness of the veins; (2) obstruction to the exit of blood from the veins; (3) increase in the influx of blood to the veins. Corresponding to these three classes of causes, we have three clinical classes of varix.

A. *Development Varix.*—These are cases where a large trunk stands out from a limb whose tissues are otherwise healthy. The disease occurs in young adults. Its special characteristics are the limitation of the disease and its selection of large channels. Œdema, eczema, and ulceration, are conspicuous by their absence. The only secondary troubles are pain and a risk of hæmorrhage from injury to a large subcutaneous vein. There is often a history of a hereditary tendency to varicose veins or to hæmorrhoids. The development of the disease at puberty, its association with nævus, and the special proclivity of the male sex, all indicate a congenital origin.

B. *Obstructive Varix.*—This form is more common. It is bilateral and the area of distribution is far less sharply limited. All the veins of an extremity are swollen. It is rare in the young and increases in frequency with later years. It is more common in women. Œdema, eczema, ulcerations and other complications, almost always develop, but the walls of the veins are thickened and there is less danger of hæmorrhage. Women suffering from the disease are usually multiparæ: there is definite association with pelvic pressure.

C. *Hyperæmic or Inflammatory Varix.*—This consists of scattered patches over the surface of the leg, in which the venules only are enlarged and present themselves as stellate areas. Such small varices are usually the result of old chronic inflammation and the prolonged hyperæmia connected therewith.

The essential condition of purely developmental varix is that the venous enlargement is primary and the accumulation of blood within the vein is secondary. While obstructive varix is due to obstruction acting upon weakly veins which are prone to dilate. These considerations influence treatment in so far as they influence prognosis after operation. When the developmental defect is limited to few trunks, to a single trunk, or even to a large pouch, the best results will be obtained from operation. Where the varix is more widely distributed, and especially in cases where the veins are large throughout the whole body, operation is far less successful.

Some Exceptional Cases of Gastric Surgery. By W. Spencer, F. R. C. S.—The author reports the following cases:

Pyloric Obstruction Caused by an Impacted Fishbone.—The patient, a woman aged forty-eight years, had complained of abdominal pain and a lump in the epigastrium for ten months. She could take only liquid food. On opening the abdomen, the pyloric third of the stomach was found adherent to the back of the abdominal wall, being pinned thereto by a fishbone two inches and a half in length. One end of the fishbone was fixed in the left rectus muscle, the other end projecting into the stomach cavity. The middle of the bone was surrounded by an abscess cavity. The bone was removed, the adhesions broken down, and the thickened portion of the stomach wall excised. The patient made a good recovery.

Two Cases of Severe Recurrent Hæmatemesis: Gastrorrhagia.—In the first case, one of recurrent gastric hæmorrhage in a woman aged forty-four years, no ulcer or bleeding point could be discovered upon operation. Pyloroplasty was performed, since which occasion there has been no return of the hæmatemesis. In the second case, that of a woman aged thirty-seven years, the hæmatemesis was due to gastric ulcer. It was treated at first by invagination of the ulcer after ligature of the artery and vein connected with it. For a time the operation seemed a success, but one year later the hæmatemesis recurred. On reopening the stomach, an extensive ulceration of the pyloric third was found. A gastro-jejunostomy was performed, since which time the patient has enjoyed good health.

Gastro-jejunostomy.—In this case, which was one of extensive ulceration and sloughing of the inner wall of the stomach, due to hydrochloric acid poisoning, there was obliteration of the stomach cavity. The jejunum was free and healthy, and the performance of a gastro-jejunostomy was followed by the complete recovery of the patient.

Gastro-duodenostomy.—In another case of dilatation of the stomach due to extensive adhesions, where the patient was too old and weak to permit of the adhesions being divided, the author performed gastro-duodenostomy after Miculicz, to the great benefit of the patient.

He calls attention to the great importance of a surgical exploration in obscure cases which are not quickly relieved by medical treatment, or in which the symptoms tend to recur. It is the only way of making a sufficiently early diagnosis of cancer to offer any chance to the patient of being cured.

Two Unusual Cases of Stricture of the Œsophagus in which Gastrostomy was Performed. By W. Downie, M. B., and Dr. R. Kennedy.—The first case was that of a woman aged thirty-two years, in whom stricture of the œsophagus followed the impaction of a large piece of meat in the gullet. No history of syphilis was obtained, yet by a process of exclusion, the stricture was thought to be a late manifestation of that disease. Antisyphilitic remedies brought about no improvement, and finally gastrostomy by Frank's method was performed. On returning to her home, the patient had no difficulty in feeding herself through a stomach-tube. There was no leakage from the stomach and no irritation of the surrounding skin. She gained 13 pounds after leaving the hospital.

The second case was that of a woman aged thirty-one years, in whom the stricture of the œsophagus was due to epitheliomatous ulceration. Gastrostomy by Witzel's method was followed by temporary improvement, but symptoms of pulmonary abscess developed and the patient died six weeks after the operation. There was no firm stricture, but an ulcer accompanied by great swelling of the wall of the gullet. Although there was a history of tuberculous gland disease, and tubercle bacilli were found in the pus expectorated, yet the ulcer proved to be epitheliomatous!

Successful Removal of an Enlarged and Displaced Spleen. By D'Arcy Power, F. R. C. S.—The author reports the case of a woman aged forty-three years, who suffered from an abdominal tumor which was thought to be ovarian. Upon opening the abdomen the tumor was found to be an enlarged spleen. It was easily delivered from the abdominal cavity, measured eight inches in length, and weighed two pounds and a half when full of blood. The pedicle was very long, and tension upon it caused signs of collapse on the part of the patient. The pedicle was ligated and cut, and the abdominal wound closed, the patient making a good recovery. The blood examination, eight days after the operation, showed a moderate secondary anæmia, with a leucocytosis of 17,000 per cubic millimetre. The various forms of leucocytes were present in their normal relative proportions. Splenectomy is a successful operation where the enlargement is not leucocythæmic. The enlargement was probably due to elongation of the pedicle leading to alterations in the vascular supply and causing chronic congestion of the spleen ending in hypertrophy.

Abdominal Fœtus (Included Fœtus). By G. A. Wright, F. R. C. S., and D. S. Wylie, M. B.—The authors report the case of a female child, aged two months when first seen, suffering from abdominal enlargement, with wasting, dyspnœa and cough. On examination the abdomen was found to be filled with an enormous tumor mass, which was dull on percussion and seemed to be cystic in places. On tapping, nineteen ounces of a yellow urine-like fluid containing urea was removed. Operation was performed one month later: the tumor was found to be widely attached and very vascular. It was removed as rapidly as possible, but the child passed into a condition of profound shock and died the same day. Examination of the tumor showed it to be an example of the monstrosity known as the "included twin" or *fœtus in fœtu*. As regards location, it was of the intra-abdominal variety, and as regards organization, it was of the type amorphus, or anideus. Before operation the tumor was thought to be renal or perirenal in origin. About thirty such cases have been recorded.

Four Cases of Laparotomy for Intussusception. By K. Monsarrat, F. R. C. S. E.—Three of these operations were performed for acute intussusception, with one recovery. In the fourth case the patient had been suffering from abdominal pain for a month before operation; the symptoms were very mild and at no time was there any discharge of blood or mucus from the bowel. Upon operating, the appendix was found to be invaginated into the cæcum. In none of these cases were injections given a trial. The operative results in simple cases are now good; in severe cases, operation furnishes the only hope of recovery.

A Case of Appendicitis with Abscess Perforating into the Bladder; Recovery. By Dr. A. P. Allan.—The author reports a case of appendicular inflammation, treated medically, in which the abscess ruptured into the bladder on the fourteenth day of the disease. The rupture was attended with much pain and total inability to urinate, while the tender mass in the right iliac fossa had disappeared. On passing a catheter, a quantity of putrid urine was drawn off. The urine continued fœtid for a week, when its condition improved. Two weeks later, the patient was seized with rigors, and the urine became foul once more, to gradually improve again. The bladder was washed out daily and the patient made a good recovery.

Operation for Severe Hypospadias. By R. H. Russell, F. R. C. S.

A Case of Severe Subcranial Hæmorrhage; Operation; Recovery. By Dr. F. G. Proudfoot and G. W. Farmer, F. R. C. S.—The patient, an intemperate woman aged fifty-six years, was found outside a public-house in an unconscious condition. On being taken home, she rallied somewhat and was able to walk a little; she soon became drowsy, however, and again lost consciousness. Examination showed a well-marked contusion over the right parietal eminence and paralysis of the right side of the body. The operation of trephining was performed, and when the circle of bone was removed, a large clot bulged into the opening. Almost instantaneously the stertorous breathing became more quiet. The clot was scooped away and several small bleeding vessels tied. Consciousness did not return until the next day. She gradually recovered the use of her right arm and leg, and was discharged a month later in good physical condition.

Notes on Two Cases of Excision of the Gasserian Ganglion for Epileptiform Neuralgia. By Dr. J. C. Renton.—The two cases reported by the author illustrate the value of this operation. In both cases the neuralgia was completely relieved. The author is strongly impressed with the importance of this operation being performed earlier than formerly, before the patient has been weakened by continuous pain and large doses of soothing remedies; and, further, there seems to be little use in operating on the terminal branches of the nerve, as no permanent relief results unless the disease is limited to one branch. No disease of the excised ganglia was to be made out. Most of the cases are probably due to a descending neuritis.

The Management of the Soft Parts in the Mastoid Operation. By Dr. J. K. Love.—The author names the advantages and disadvantages of Schwartze's operation for disease of the antrum and middle ear, and describes what he calls "the single-channel operation" for the same affection. Its advantages are:

1. All dressings are removed from the side of the head within a fortnight, and the patient may resume work at that date.

2. All treatment is carried on *via* the widened canal, which is so capacious that every part of the healing sur-

face can be easily seen through the speculum, and every nook of it cleaned and packed with absorbent gauze.

3. Complete healing takes place within three months, and two dressings a week are sufficient, as a rule.

A Plastic Operation for the Closure of Retro-auricular Post-operative Fistulæ. By R. Lake, F. R. C. S.

Lancet, November 17, 1900.

The Treatment of Sprains and of Some Fractures. By A. S. Tubby, F. R. C. S.—A sprain may be defined as a momentary disturbance of the normal relation that exists between opposing joint surfaces. Its degrees are very variable: In the mildest form there may be only slight effusion of blood; in the severest, a small portion of bone may be torn away by the ligaments (sprain-fracture). In the diagnosis of this latter condition, the employment of the Röntgen rays is invaluable. There are two modes of treating sprains: The method of rapid forcible movement immediately after the injury, and the method of rest. The former, that of mobility from the first, is one which can only be employed in very slight cases, and even then the symptoms often become more pronounced, and permanent thickening of the joint remains. In the mode of treatment by rest, the application of heat, of properly applied pressure, splint and plaster-of-Paris fixation, friction, and the use of the constant current, can all be utilized. It is quite rational to apply cold during the first three or four hours after the accident; indeed, it is the best method. The amount of effusion can be further checked by the application of pressure and placing the joint in such a position that its potential cavity is lessened. For instance, the knee should be extended; the ankle placed at right angles. Pressure by bandages should be equally distributed by means of pads of cotton wool. When the second attack of pain ensues, the application of cold is of little value; heat should now be applied, as it not only relieves the pain, but promotes absorption on the part of the blood vessels. The effused blood and lymph are in this way taken up and removed. After three or four days of rest, passive movements of the joint should be commenced. All movements must be made towards the injured ligaments. Where the swelling is considerable, properly applied friction is necessary for its reduction; even counter-irritation by means of blisters may be called for. As a rule, where this line of treatment is followed, a severe sprain will cease to give rise to trouble within two or three weeks, and the patient can go about with comfort.

Fractures about the Elbow Joints.—The disastrous consequences which so often follow fractures in this region, are due, in the author's opinion, to the arm being kept at a right angle with the forearm midway between pronation and supination. He advises that in all such injuries (except of the olecranon) the forearm should be forcibly extended, then supinated, then acutely flexed: *i. e.*, with the ball of the thumb resting against the neck on the opposite side. A splint is not needed, and is, indeed, harmful. The arm should be secured by a sling passing around the neck and the wrist. At the end of three or four weeks, the arm should be dropped a little.

Separation of the Lower Epiphysis of the Femur.—Reduction of the epiphysis and the maintenance of the reduction are sometimes extremely difficult, and in some cases the author has been compelled to open the joint and fix the epiphysis in place with a steel nickel-plated screw.

Remarks on Ten Cases of Enteric Fever in which the Blood was Examined Periodically for Agglutinative Properties. By Dr. W. G. Savage.—The author's investigations were undertaken with the following objects: 1. To determine whether the serum reaction was any aid to prognosis and if any connection between the reaction and the presence of complications (relapse), could be traced. 2. To determine whether the blood of typhoid patients reacted better to the colon bacillus than the blood of non-typhoid patients, and if so, whether such cases ran a different clinical course from the others. 3. Whether considerable differences in clumping power existed between typhoid bacilli obtained from different sources. Ten cases of typhoid fever were observed by him, and his conclusions are as follows: 1. The intensity of the reaction bears no relation to the severity of the attack and is of no aid in giving a prognosis. Previously to a relapse, the agglutinative properties of the serum are usually very weak, and, very generally, these weak reactions are preceded by better marked reactions. But the only conclusion to be drawn is, that where a well-marked reaction is present every week, no relapse is to be anticipated; where a feeble reaction is obtained, relapse may follow. 2. There was no evidence in any of the cases of a concurrent colon bacillus infection, and no relationship was to be traced to complications and relapse. 3. Well marked differences of agglutinative power undoubtedly exist between typhoid bacilli obtained from different sources. But such differences cannot be considered as sufficient to justify a division into distinct varieties; they are rather to be explained as due to differences of present environment, and to conditions acting upon the bacillus in the past inducing non-stable variations.

Acute Emphysematous Gangrene: A Clinical and Bacteriological Digest, with Details of a New Case. By E. M. Corner, F. R. C. S., and H. D. Singer, M. B.—The authors report a case of the above-mentioned affection, occurring in a man aged twenty-six years, and following a laceration of the right arm. Emphysema of the tissues and local gangrene soon made their appearance, the temperature rising to 103.4° F. The arm was amputated at the surgical neck of the humerus, with skin flaps. As a streptococcus had been cultivated from the wound as well as a bacillus, 20 cubic centimetres of antistreptococcic serum were also injected. Gangrene soon attacked the skin flaps; these were also excised, leaving a large raw surface. The various pits and sloughs were cleansed with carbolic lotion, and the patient made a gradual recovery, being discharged on the forty-fifth day. Cultures from the diseased tissues showed the presence of the *Bacillus œdematis aerobius* of Sanfelice, and the *Streptococcus pyogenes.* The points of interest in the case are: 1. Dirt infection at the time of accident. 2. Extremely rapid and severe onset in a young and healthy man. 3. Visible spread of the gangrene within two hours. 4. Rapid recurrence of the symptoms after amputation. 5. Four operations in all were necessary. 6. The formation of pits or cavities during convalescence, which were due to the presence and gas-producing capacity of the bacillus. 7. The septic condition present with the bacillus, indicated by the reddening of the skin preceding the gangrene. The article closes with an excellent and complete digest of the published literature upon the subject. The bacteriology of their own case is also described with great care.

Fibroid Tumor as a Complication of Pregnancy and Labor. By J. E. Gemmell, M. B.—The author reports the following cases: 1. Labor complicated by puerperal eclampsia; fibroid tumor; sapræmia; septic peritonitis;

abdominal hysterectomy with recovery. From its position on the right side, and its apparent fixation, the tumor seemed at first to be renal in origin. It prevented complete uterine contraction after delivery, thus allowing retention of blood-clot and giving rise to the sapræmia. On microscopical examination the tumor proved to be a fibro-myoma growing from the posterior wall of the uterus. It weighed three pounds. 2. Pregnancy (three months); multiple fibroids, simulating retroversion of the gravid uterus; enucleation; pregnancy uninterrupted. The tumor was thought to be an impacted dermoid ovarian cyst, and was removed on that supposition. The pregnancy was uninterrupted and continued to term.

The Micro-organisms of Vaccine Materials. By Dr. J. B. Buist.—The author, after briefly reviewing the literature of the subject of micro-organisms in lymph, gives the results of his own investigations, carried out in 1884, to determine the cause of the opacity of vaccine lymph. It was found that the amount of germinal matter in ordinary commercial tubes was comparatively small and not likely to produce the universal opacity found in the lymph. Several varieties of organisms were found, the author classifying them according to the color of the growth on gelatin (white, yellow, orange or brown). Microscopical examination showed the growths to be made up of micrococci and tetrads. Animals inoculated with these cultures contracted vaccinia only rarely; and when the cultivations were carried through several generations, they did not produce vaccinia. The author concluded therefore that the specific organism in vaccine lymph was a spore. All attempts to cultivate it outside the body have hitherto proved fruitless.

Remarks on Two Cases of Landry's Paralysis. By Dr. T. W. Griffith.—In the first case of the two reported by the author, the salient features were the premonitory pains, the rapidly developing palsy, more or less, but not strictly, ascending in character, with some affection of the cranial nerves, loss of reflexes without marked affection of the sphincters, and decided anæsthesia of a more limited distribution than that of the motor palsy, the whole terminating in respiratory palsy in about eleven days. In the second case, which lasted about two months and a half, sensory phenomena were the earlier and more pronounced, and at one time were so markedly unilateral as to suggest functional disorder. The spread of the anæsthesia was most irregular, while a striking feature of the case was the persistence of the deep reflexes and their actual increase on the left side. In both cases spinal myelitis could be safely excluded.

Journal des praticiens, November 3, 1900.

Accidents of Dentition. By M. Sevestre.

Oxycyanide of Mercury as an Antiseptic.—M. M. Degny says that this salt of mercury is much less irritating than the sublimate and less frequently produces a dermatitis. It does not harm the nickel of instruments, which may be boiled in a solution of the salt. It is odorless, and is of equal antiseptic power to the bichloride salt. When dissolved in concentrated strength, some of the salt falls to the bottom of the vessel; so the author always uses a fresh solution of from 1 to 1,000 to 1 to 2,000. It is instantaneously soluble in warm water but insoluble in alcohol. Its solutions are stable.

Gazette hebdomadaire de médecine et de chirurgie, November 1, 1900.

Metamerism of the Nervous System. By M. Georges Constensaux.

November 4, 1900.

Tuberculous Rheumatism or Pseudo-rheumatism of Bacillary Origin.—M. Louis Maillard reviews a number of cases of persons with tuberculous diseases of one form or another who have subsequently been attacked with articular rheumatism, frequently followed by ankylosis. He is inclined to regard these instances as invasion of the joint by tuberculosis, although they are usually regarded as types of rheumatism. The diagnosis should be made early in the presence of tuberculosis elsewhere, and the treatment should consist of rest, good air, and forced feeding, together with massage, electricity, cauterization, etc. The author believes that the tubercle bacillus is as capable of evoking articular disease as the gonococcus.

Presse médicale, October 31, 1900.

Pathogenesis of Tuberculous Adenopathy.—M. G. Bouvet says that the peripheral invasion of glands by the tubercle bacillus is most frequently due to some local tuberculous lesion, usually arising from some external infection of the lymphatics. The lesion may be apparent or concealed; the latter is the more frequent, as it is known that the tubercle bacillus can penetrate the skin or mucous membrane through the smallest abrasion (primary adenopathy). In a secondary adenopathy, the glands become involved from some internal focus of disease by a bacillary embolus carried by the circulation.

Deformity of the Spleen Due to Thoracic Constriction. By M. Dieulafé.

Radical Cure of Hydrocele.—M. L. Longuet writes of a new method of radical cure by turning in the entire covering of the hydrocele—of cellular tissue, fibrous tissue and tunica vaginalis—without stripping off the tunica and with no hæmostasis. The operation is simple and easily performed under local anæsthesia, and the results in three cases justify him in his belief as to the possibility of obtaining a permanent cure.

November 3, 1900.

Influence of Toxines of Colon Bacillus upon the Circulation and Respiration.—M. H. Roger has experimented upon animals with the toxines derived from the colon bacillus which was found in a case of dysentery. He found a great decrease in the blood pressure which corresponds to the clinical effects of dysentery upon the vascular apparatus. The animal died of respiratory paralysis when the dose of the toxines was made sufficiently large; when small quantities only were injected, the respirations were slowed, but soon regained their normal number; as the quantity was increased, the phenomena of intoxication appeared until respiratory paralysis set in.

Intoxications and Infections in Neuropathies.—M. G. D'Abundo writes of the various infections and self-intoxications which occur in the course of mental diseases and the various neuropathies. He says that these factors are the most frequent and active in the ætiology of these diseases, intra-uterine as well as extra-uterine; for instance, syphilis and alcoholism are capable of producing in offspring classical pathological changes with the development of neuropathic diseases of toxicoinfectious origin. Some forms of neuropathic degeneration are due to imperfect organization of the brain and spinal cord due to embryonal affections of toxic origin. These forms of infection and intoxication often lead to secondary ones which complicate the original form, thus evolving a form of polyintoxication; or, the toxic agents can affect certain parts of the nervous system, evoking peripheral or central localized changes, or they may become disseminated, leading to acute or chronic neuropsychoses. Mental confusion represents the most frequent clinical type of toxicoinfectious action; acute delirium, too, may be regarded as a clinical symptom of similar origin. The modern researches upon the ætiology of paresis tend to strengthen the conception of its infectious origin. The treatment of all these conditions lies in the elimination, when possible, of the toxic products and in the diminution or neutralization of the secondary intoxications.

Deutsche Medizinal-Zeitung, November 1, 1900.

Hyperemesis Gravidarum (*continued*).—Dr. M. Lwow says that the excessive vomiting of pregnancy is unquestionably of reflex origin from the genital sphere unusually exaggerated by some gross pathological lesion, especially of the uterus, such as displacements, chronic metritis, endometritis, perimetritis, etc. The vomiting is apt to be further exaggerated if there is concomitant inflammation or disease of the intestinal tract.

November 5, 1900.

Hyperemesis Gravidarum (*continued*).—Dr. M. Lwow mentions the four views commonly held by various authorities as to the cause of the excessive vomiting of pregnancy. These are: (1) that it is a reflex neurosis originating in a diseased uterus or peritonæum; (2) that it is a reflex neurosis originating elsewhere than in the genital tract; (3) that it is a form of hysteria; and (4) that it represents different varieties of self-intoxication by leucomaines.

Wiener klinische Rundschau, November 4, 1900.

Ureteral Catheterization.—Dr. F. Stockmann records current views of other observers on the feasibility and desirability of washing out the pelvis of the kidney in cases of pyelitis, and of irrigating the ureter for dilatation of that organ. (*To be continued.*)

Examination of Prostitutes.—Dr. Karl Gumpertz concludes his exhaustive essay on this subject by asserting that even the most rigorous examination of prostitutes for gonorrhœa will fail in its purpose because those suffering from a chronic or incurable form of the disease, or from a mild recurrence, will not cease to follow their trade. Still, he urges a microscopical examination at every examination at least twice weekly if anything can be hoped to be accomplished.

Criteria of Cure of the Mentally Diseased (*concluded*). By Dr. Ladislaus Epstein.

Klinisch-therapeutische Wochenschrift, November 4, 1900.

Therapeutic Value of Aspirin.—Dr. Alfred Brunner praises the use of aspirin in subacute articular rheumatism as an antipyretic and analgetic. It is very useful, too, in chronic articular rheumatism. In erythema nodosum, it alleviates the cutaneous condition, and in the so-called rheumatic form of influenza it has proved of value in the author's hands, relieving the articular and muscular pains promptly. In doses of seven and a half grains it does not affect the heart, although in acute articular rheumatism it is well to combine it with caffeine. In neuritis and neuralgias, fifteen grains may be given with a certainty of relieving the pain. It acts as an analgetic also in sciatica, pleurisy, gout and arthritides of any form. No tinnitus, vertigo, or gastric pain was observed after its use.

Multiple Neuritis and Ataxia. By Dr. Koloman Pándy. (*Concluded.*)

Wiener klinische Wochenschrift, November 1, 1900.

Diagnosis of Latent Carcinoma of the Œsophagus.—Dr. C. Hödlmoser reports two cases. In one, there was no symptom to lead to the suspicion of œsophageal cancer, especially no painful deglutition. The chief complaint was pain after eating. The second patient also gave evidence only of some malignant growth of the gastro-intestinal tract. Both patients were cachectic. The author concludes that some cases may run a latent course and draws attention to the value of œsophagoscopy in doubtful instances.

Posthemiplegic Intention Tremor. By Dr. Moriz Infeld.

Bromopin in Epilepsy.—Dr. Wilhelm Lorenz has used this drug in thirty-four cases of genuine epilepsy and has found that it does not disturb the appetite, and that most of the patients gained weight under its use. It was usually administered in a ten-per-cent. aqueous solution, of which from four to six drachms were given in a day, a dose which corresponds to from twenty-five to fifty grains of sodium bromide. The attacks were well controlled and no sequelæ were observed from the employment of bromopin.

Riforma medica, October 29 and 30, 1900.

A Case of Tuberculous Leprosy Observed in the Province of Pavia. By Dr. Umberto Mantegazza.—The author accidentally came across this case while on his vacation in the country. He discusses the measures that should be adopted in Italy against the spread of this disease. In spite of the fact that contact with leprous individuals is not rare, infection does not take place as frequently as is sometimes supposed. There are many cases recorded in which the patient lived with his family without infecting the members of the household. On the other hand, cases are not lacking in which missionaries, physicians, nurses, etc., who attended leprous persons, have been infected. Tuberculous leprosy is of course much more infectious than the nervous type. The case occurred in a village where no case of leprosy had been previously reported. This seems to show that such cases evade the knowledge of the sanitary authorities. There are in Italy a number of places where leprosy is still found represented by a not inconsiderable number of victims. The question of isolation is a difficult one, but everything should be done that can be done in a humane way to prevent contagion. The author suggests that a careful search for all lepers should be instituted throughout the country, and that a complete census of these patients be taken. These individuals should not be permitted to walk about in the streets as mendicants, exhibiting their sores to the pitying gaze of passers-by, but should be taken care of by the State.

October 31, 1900.

The Digestion and Assimilation of Fat in Venous Cirrhoses of the Liver. By Dr. Luigi Ferranini.—The author has studied the changes in the digestion of fats resulting from the deterioration of the bile as a consequence of cirrhosis of the liver. He concludes that in venous cirrhosis of the liver, without any lesion of the biliary apparatus or of the pancreas, the insufficient emulsification of the fats points to a disturbance in the functions of the liver, while the ureogenic, biligenic, glycogenic, and antitoxic functions of the liver are not yet disturbed. The insufficiency in fat-digestion is therefore to be regarded as an evidence of hepatic insufficiency.

November 2 and 3, 1900.

Concerning the So-called Actinomycotic Form of the Bacillus of Tuberculosis in Mammals. By Dr. Benedetto Lamberti.—The author rejects, as a result of an experimental research, the hypothesis of Babes and Levaditi, that the bacillus of tuberculosis must be classed in an intermediate (?) group between the bacteriaceæ and the ascomycetes. He concludes that the bacillus of tuberculosis in mammals should be classed, as before, among the schizomycetes, and not among the lower order to which the name actinomycetes is given.

November 5 and 6, 1900.

Lesions of the Cerebral Cortex in Experimental Parenchymatous and Interstitial Nephritis. By Dr. Urbano Alessi.

November 7, 1900.

Neuro-serum. The Destructive and Protective Serum of the Nervous System. By Dr. Eugenio Centanni.

Gazzetta degli ospedali e delle cliniche, October 28, 1900.

A Contribution to the Diagnosis of Pericarditis. By Dr. Felice Senna.

A Contribution to the Treatment of Trophic Lesions by Chipault's Method. By Dr. A. Montini.—Chipault suggested lengthening the nerves of the part involved in trophic lesions of various kinds. In 1897 he reported twelve cases that had been cured by the application of this new method, and concluded that the operation of lengthening the nerve supplying the part concerned in the ulceration has a beneficial effect upon the healing of the lesion. Since then a number of observers have reported their experience with Chipault's method.

The author reports a case in which a trophic œdema of the arm was cured by this method. The operation consisted of an incision about twelve centimetres in length along the bicipital sulcus, and of isolation of the median nerve along the entire length of the incision. The nerve was then stretched, by means of the fingers at first, and then by means of forceps the serrated ends of which were covered by pieces of rubber tubing. The traction was made both from above and from below and the act was repeated several times. The nerve was then replaced into its proper anatomical position, and the wound sutured. The improvement was gradual but steady.

Exstrophy of the Bladder. By Dr. Francesco Zagato.

Ritter's Disease (Dermatitis Exfoliativa of the Newborn). By Dr. Arturo Gazzotti.

Concerning the Permanence of the Craniopharyngeal Canal in Man. By Dr. Antonio Caselli.

November 4, 1900.

The Action of Sodium Hyposulphite upon the Movable Oxygen in the Organism. By Dr. Giuseppe Segadelli.—Movable oxygen is a term applied by Professor Novi to that portion of the oxygen in the blood which exists as oxyhæmoglobin and is liberated to supply energy to the tissues, a fixed portion always remaining in the cell. The exact manner in which the oxygen is combined, and the chemical process that underlies its liberation, are not as yet fully understood. The author has investigated the influence of sodium hyposulphite upon the oxygen of the blood, and also the effect of this substance when brought into direct contact with arterial blood *in vitro*, when introduced into the stomach, when injected hypodermatically, and when injected intravenously, and his conclusions are as follows: When sodium hyposulphite is mixed with defibrinated blood, in the proportion of 0.65 per cent., there is a marked and constant diminution of the movable oxygen. The diminution is not in proportion to the amount of movable oxygen previously found in the blood, but, other things being equal, in proportion to the amount of sodium hyposulphite introduced. If injected subcutaneously, sodium hyposulphite produces a diminution in the amount of movable oxygen, and the same is true when this substance is introduced into the stomach. The effect of the sodium hyposulphite reaches its acme twenty-two hours after the injection. In the cases in which the salt was introduced directly into the circulation, the effects were more rapid and a diminution of the movable oxygen in the blood was noted within an hour of the injection.

Concerning the Technique of Excision of the Cervix Uteri. By Dr. Ettore Piccoli.

Gastro-intestinal Disturbances in a Breast-fed Infant, Due to an Excess of Fat in the Milk. By Dr. R. Jemma.—The infant was put upon a milk mixture and the symptoms disappeared within a few days.

A Histological Note Concerning a Lithopædion. By Dr. G. G. Perrando and Dr. M. Segale.

Erysipelatous Septicæmia in a Case of Grave Mania. By Dr. F. Giacchi.—The author believes that mental diseases may influence the course of the various infections, and reports the present case in support of this theory. The patient was a man affected with a grave form of mania, and an erysipelatous infection of the arm resulted fatally. The autopsy and the culture experiments left no doubt that this was a case of septicæmia due to the spread of the streptococcus of Fehleisen. The author's conclusions are as follows: The age and general health of the patient being favorable, and the infection peripherally situated, the prognosis of erysipelas is favorable. If, however, general infection occurs, it is not due to the spread of the toxines, but to the entrance of the germs themselves into the circulation. A severe disturbance in the mental equilibrium of the patient may favor the entrance of the streptococci into the blood, and may, therefore, be followed by septicæmia. Cenni has found experimentally that the various diseases of the mind diminish the bactericidal power of the blood, by lessening its alkalinity and its phagocytic properties.

Chirurgia, October, 1900.

A Historical Sketch of the Development of the Profession of Surgery. By Dr. M. Lachtin.

Traumatic Cyst of the Pancreas. By Dr. N. N. Michailoff.—The patient was a man aged twenty-two years, strong, and perfectly healthy before his present illness. Two months before admission he sustained a severe accidental injury, a blow in the abdomen with the end of a falling beam. The patient received the blow while in the erect position, and immediately lost consciousness, then vomited several times, and complained of severe pains in the abdomen. After a time he noticed a swelling in the upper part of the abdominal cavity, and the tumor increased steadily in size. He became markedly emaciated. On examination the right half of the abdomen seemed more prominent than the left, and the tumor was felt through the walls; its long diameter was found to lie transversely, and measured twenty-eight centimetres, the vertical diameter measuring nineteen centimetres, and two thirds of it were above the umbilicus. The tumor was dull on percussion, but all around it was a zone of tympany. The operation disclosed a large thick-walled cyst of the pancreas containing five litres of reddish-brown semitransparent fluid in which a number of whitish particles were floating. The edges of the opening in the cyst were sutured to the edges of the wound in the peritonæum, and the cavity was carefully mopped out with gauze and drained by several aseptic tampons. The author thinks that the fluid was simply an altered form of blood, the remains of a hæmatoma caused by the traumatism. The recovery was rapid and uneventful.

Two Cases of Nephrotomy, with Some Remarks Concerning Operations on the Kidneys. By Dr. V. I. Lisiansky.—The first case was one of suppurative nephritis. The removal of the kidney was not possible because the organ was completely surrounded by adhesions, so the surgeon performed a nephrotomy, and drained the suppurating wound with gauze, after irrigating the region with boric acid solution. The patient recovered, and six months later no unfavorable symptoms were noted. The second case was also one of old neglected surgical kidney, with fistulæ and firm adhesions in the region of the organ, for which reason nephrotomy, and not nephrectomy, was performed. The patient recovered but was discharged with a fistula. In certain cases when nephrectomy is not possible, we have to content ourselves with mere incision and drainage. The author agrees with Israel that, in patients with weak hearts, a prolonged narcosis and profound shock such as results from nephrectomy are too dangerous, and that it is often better in these cases also to limit ourselves to nephrotomy; yet we risk the development of amyloid kidney if the nephrotomy does not arrest the suppuration, and therefore the cases must be selected with great care.

Absence of the Pectoralis Major and Minor Muscles. By Dr. N. Altouchoff.—The author reports the rare anomaly of total absence of both pectoral muscles on right side. A year ago he saw a case of absence of the lower half of the pectoral portion of the pectoralis major of both sides. The ætiology of these anomalies is attributed to atrophy of the muscles concerned, as a result of progressive muscular atrophy, or to traumatism. The family history of this patient was negative, but he stated that his right hand was never good for anything, and on examination it was found that the function of the right upper extremity was very markedly impaired as contrasted with that of the left, and that there was a total absence of the pectoral muscles on the right side, while the left side was normal.

Vratch, October 24, 1900 (November 5, N. S.).

Concerning the Best Methods of Popularizing Information on the Subject of First Aid to the Injured. By Dr. G. I. Turner.—The author recommends the establishment of museums in which everything that pertains to the subject of first aid to the injured shall be graphically demonstrated by means of charts, diagrams, models, plates, etc. Such a museum should be founded in the large centres of population, should be accessible to everybody, and should contain models of all the processes employed in the administration of first aid. The author succeeded in collecting a number of such models and sent them to the Paris Exposition, where they received a prize. The proposed museum in St. Petersburg will contain: 1. Anatomical charts, diagrams, drawings, photographs, and preparations illustrating the structure of the body in a simple manner. 2. Drawings and mannikins showing the various methods of bandaging, dressing wounds, etc. 3. The simplest and least harmful dressings for use in emergencies. Antiseptics; illustrations of aseptic methods. 4. Appliances for immobilization, including various methods of improvising splints. 5. Charts and tables representing the circulation, the anatomy of the principal arteries and veins, and models, phantoms, etc., showing the different methods of arresting hæmorrhage. 6. Illustrations of the physiology of respiration and of the methods of artificial respiration. 7. Plates showing the different types of burns and scalds, frostbites, etc., and the remedies to be applied in such cases. 8. A collection of the commonest poisons and antidotes. 9. A collection of drawings and preparations of the principal poisonous snakes, and other animals whose stings or bites are dangerous, and also of the poisonous mushrooms, together with the remedies to be used in cases of such bites, stings, or poisoning. 10. Illustrations of the best methods of transporting the injured, including various improvised means of transportation. 11. Models illustrating the arrangement of stations for the first aid to the injured, of ambulances, of signalling apparatus, etc. 12. A library containing the principal works on the subject and on allied themes, and a collection of statistics on the organization of first aid in various countries.

Concerning the Operative Treatment of Abdominal Hernia Secondary to Laparotomy. By Dr. B. N. Orloff.—The method of suturing the abdominal wound after laparotomy is a matter of dispute, and the question is of considerable importance on account of the frequency with which herniæ appear after the operation. In the author's clinic, the wound is always sutured with silk and the sutures are rendered aseptic by a very elaborate process. We notice that he advocates the use of sponges in preference to gauze pads, because the former are softer and absorb fluids better. As a rule, only one tier of sutures is used in closing the wound, except in patients who have a great deal of adipose tissue and thick muscles. In such cases, two tiers of sutures are applied, the first to the peritonæum and the aponeurosis, the other to the remaining layers of the abdominal wall. In rare cases the upper layer is of catgut; as a rule both are of silk. Special care is taken to include the aponeurosis in every suture. The sutures are not removed until the twelfth day, and not then if there is any cough. The causes of hernia in laparotomy are, in the opinion of the author: Suppuration of the sutures; the presence of fistulous tracts; early removal of sutures, especially if there is cough; early discharge from the hospital and resumption of heavy work, and absence of any precautions on the part of the patient such as the wearing of a proper belt. The author reports five cases in which he performed operations for hernia following laparotomy. The method of operating was as follows: 1. An incision along the line of the scar in the median line of the abdomen. 2. Careful opening of the peritonæum, without injuring the intestines or the omentum which are often found adherent to the hernial sac. 3. Separation of the intestines and the omentum from the adhesions, sometimes also a resection of a portion of the omentum if the latter is very greatly altered. 4. Denudation of the edges of the wound, and separation of the muscles from the other layers of the abdominal wall. 5. Closure of the wound with two or three layers of sutures. In one case three layers were used, the first and second being of catgut and continuous, the third of silk and interrupted. The first layer included the peritonæum; the second, the muscles and the aponeurosis, and the remaining layers included the skin. In three cases there were two layers of interrupted silk sutures, and in one case, one of the layers consisted of continuous silk sutures, the other of interrupted. The author prefers silk as a material that can be most thoroughly sterilized. A single tier of sutures is to be preferred to the double and triple tier, because, in the former, there is less damage to the tissues and less liability to infection. But in applying the single row of sutures, we must be careful not to leave any pockets, and to adapt the surfaces to each other very accurately. If more than one row is required, the deeper ones should be interrupted sutures, the upper one may be continuous.

A Few Cases in which Catheterization of the Ureters was Used as a Therapeutic Measure. By Dr. F. Stockmann.—A report of five cases in which the author used Casper's method of treatment for chronic pyelitis. He concludes that, in all such cases, Casper's treatment may be useful, and that in the case caused by infection with the *Bacillus coli communis* this method is of great value. He thinks that catheterization of the ureters should be tried in all cases of chronic pyelitis. If it is not successful, the question of nephrectomy may be considered.

Bulletin of the Johns Hopkins Hospital, November, 1900.

Aneurysm of the Aorta Treated by the Insertion of a Permanent Wire and Galvanism (Moore-Corradi Method), with a Report of Five Cases. By Dr. Guy L. Hunner.—A black varnish or lacquer makes the best insulation for the needle. The disposition of the wire in the lumen of the sac is an important factor in the amount and the effectiveness of the fibrin whipped out. A small quantity of wire possessing a good spring should be selected. Cure of the aneurysm demands as complete contraction as possible of the sac wall upon the clot formed at or soon after the operation. The wire should be of such amount and material as not to interfere seriously with this contraction. The corrosion of the wire by the electric current makes a rough surface very conducive to the rapid whipping out of fibrin. Within certain limits, the wire most easily corroded is to be preferred. The sac should never receive both poles, and the negative electrode should never be in the sac. Sepsis is an omnipresent danger. Another danger is that of the development and rupture of a secondary sac due to the rapid filling up of the main sac by coagulum, and the shunting of the blood stream against a portion not receiving a special strain before. There have been, in all, twenty-three operations of this character—including the author's five. Clinical and post-mortem evidence points to the efficacy of this method. Thirty-nine per cent. of successful results attest the value of this method, and the fact that it is still in its infancy and most crudely applied, makes the record very impressive.

Obstetrical Paralysis, Infantile and Maternal. By Dr. H. M. Thomas.—It would seem that the muscles affected in obstetrical palsy have their chief representation in the fifth and sixth cervical roots, and the experiments of Fieux and Schoemaker show that these roots are most apt to be injured during difficult labor, by either the stretching of the plexus or the squeezing of it between the clavicle and the spinal column. Careful post-mortem examinations are necessary to clear up the question, and we are almost completely without such data. The author presents three cases. In the two patients that lived the results were very satisfactory; such is not always the case, and the author has seen a number that persisted until adult life. The prognosis depends upon the severity of the injury.

In the mother, paralysis resulting from trauma during labor nearly always has a definite distribution, affecting exclusively or most intensely the muscles supplied by the external popliteal nerve. The author, at present, has two cases under treatment. Prevention is what we should aim at in these cases. Labor should not be allowed to continue longer than is necessary, and intervention should be undertaken under the strictest obstetrical precautions. The early administration of chloroform works no harm, but is rather productive of good. Hydrotherapeutic measures directly after labor should not be too zealous. A cold sitz bath at this time may cause an inflammatory condition of the nerves.

Oxygen and Steam with the Vapors of a Special Inhalation Mixture in Pulmonary Disease. By Dr. Clement A. Penrose.—The good effects of oxygen in pulmonary disorders are raised to a maximum when combined with the inhalation mixture proposed by the author. At the start a formula: creosote (beechwood), oil of turpentine, of each, 4 drachms, compound tincture of benzoin, 3 drachms, is used (one drachm of this mixture is placed in a pint of hot water). As the patient becomes more accustomed to the fumes, more of the creosote and oil of turpentine is added, until a mixture of equal parts is obtained. Inhalation, to be effective, should be systematic and of sufficient duration, ten to fifteen minutes at least. Breathing exercises and general gymnastic work are indispensable adjuncts.

Medical Chronicle, September, 1900.

A Form of Faucial Inflammation Resembling Diphtheria. By Francis Villy, B. A., M. D.—The author records four cases that have come under his care, in which a condition almost exactly resembling that due to the Klebs-Löffler bacillus was met with. The points in which this affection differs from true diphtheria are stated as follows:

1. The local faucial lesion is of a more gangrenous nature, in fact the substance which resembles membrane consists for the greater part of slough; ulceration disclosed by the separation of this slough is more constant and extensive than is usual in diphtheria. 2. The disease is if a more febrile nature; delirium is not uncommon. 3. Paralysis is not one of its sequelæ. 4. Recovery, when it occurs, is more rapid, and cardiac affections are not to the front. 5. The Klebs-Löffler bacillus, if found in the throat at all, is present only in small numbers, and is probably not a factor in the causation of the lesion. 6. *Streptococcus pyogenes* is the preponderating organism found in the throat. 7. The disease is not at all affected by the administration of diphtheritic antitoxine.

Leontiasis Ossea. By W. H. Stephenson, L. R. C. P., L. R. C. S. (Edin.).—The author records the case of a young man, aged twenty-seven years, in whom the whole of the lower jaw appeared to be thickened and hypertrophied, especially the left half, and on examining the interior of the mouth, the broadening and thickening of the alveolar margin was well marked. The teeth appeared to be somewhat small and rudimentary. The nasal bones were considerably enlarged, and the left nostril almost occluded. The superior maxillæ were slightly enlarged, and there was a distinct bulging of the left frontal eminence. The patient had lately noticed a difficulty in adjusting his hat, owing to the swelling in this situation. All the other bones appeared to be normal, except that the patient suffered from slight genu valgum of the right leg.

Leontiasis ossea was first described by Virchow, and later by the late Sir James Paget, and is characterized by an overgrowth or hyperostosis of all or some of the facial or cranial bones, without any concomitant affection of other parts of the body.

Very little appears to be known of the ætiology of this obscure disease. It may occur at any period of life—some cases having been recorded in childhood—and it is prone to attack both sexes. It has been suggested that the disease may be due to rickets, but this theory is unsupported by the facts. Injury has also been mentioned as a cause.

The disease seldom seems to affect the cranial bones alone. The superior maxillæ and the various bones entering into the formation of the inner walls of the orbit are frequently alone affected, the cranial and lower-jaw bones remaining free from disease; a single superior maxilla, however, may be alone affected by hyperostosis, and may present some of the appearances of leontiasis ossea. Such an affection of one upper jaw is a much more common disease than leontiasis ossea.

The disease may affect the whole of both cranial and facial bones. In the process of growth the affected bones become greatly increased in thickness and density, the open cancellous framework becoming converted into dense compact bone. Cavities such as the ethmoidal and sphenoidal sinuses, and even the bony canals of the supra- and infra-orbital venous sinuses, may become obliterated and their contents destroyed. The cranial bones may become so thickened as to cause death by gradually increasing pressure on the brain.

The symptoms vary according to the position and also to the extent of the formation of the new bone. There is generally marked deformity, and sometimes loss of function. The cavities of the orbit, nose, and mouth may be encroached upon, producing prominence of the eyeballs (proptosis), and even blindness from direct pressure on the optic nerve. Loss of smell may occur either from occlusion of the nostril or from pressure on the olfactory nerve in the ethmoid bone. Speech and mastication may become affected from gradual encroachment upon the cavity of the mouth. Pain is often a very marked symptom, and may be due either to indirect pressure or to stretching of nerves by the gradually enlarging bones, or to direct pressure on nerves passing through foramina in the bones affected.

The disease tends to run a very slow course and it may be years before there is either marked pain or deformity.

No treatment appears to be of any avail. In unilateral cases, or when there is distinct evidence of localized nerve-pressure, surgical intervention may be useful and relief of pain obtained by resection of some portion of the affected bone. The disease is most probably due, in some obscure way, to some perverted nutrition of the bone, and from the analogy of this disease to acromegaly, which is now known to be usually associated with some diseased condition of the pituitary body, the administration of pituitary gland extract, or possibly some of the other gland extracts, might be beneficial.

British Journal of Dermatology, October, 1900.

A Disease caused by a Fungus; the Protozoic Dermatitis of Rixford and Gilchrist. By Dr. D. W. Montgomery.—The author reports a case of the above-mentioned affection occurring in a man aged twenty-one years. The first symptom had been a cough, which had persisted. When first seen the patient was apparently suffering from pulmonary tuberculosis, but no tubercle bacilli were ever found in the sputum. The skin efflorescences began as dark red, elevated nodules with a purulent top, which, later, ulcerated. In many cases these nodules formed definite tuberosities. Microscopical examination showed coccidioid micro-organisms, similar to those described by Rixford and Gilchrist. Eleven months after the beginning of his illness, the patient died; at the autopsy numerous abscesses in the lungs, the liver and other organs, were found, all containing the coccidia-like bodies. Their inoculation into a rabbit was devoid of result.

The author reviews the literature of the subject, and points out that all the individuals whose cases have been reported by various observers have lived in California. This would seem to fix California as the habitat of the parasite.

A Case of Multiple Carcinomata of the Skin. By Dr. S. W. Allworthy and G. Pernet, M. R. C. S.

Cutaneous Affections Occurring in the Course of Graves's Disease. By S. E. Dorr, M. B.—Pigmentation of the skin is not an uncommon accompaniment of Graves's disease; it occurs chiefly as an excess of the normal pigment of the body. The orbits, face and neck, axillæ, areolæ of the nipples, abdomen, and flexures of the arms and thighs, are its favorite sites. Leucodermia also occurs in Graves's disease, and the author reports a case in which it was present. Trophic changes in the skin and its appendages are also met with; falling of the hair is common, which may amount to universal alopecia. The nails are apt to be atrophied and the teeth to be carious. Excessive sweating is the commonest of the cutaneous manifestations of Graves's disease, and erythematous eruptions have been often observed. Various forms of œdema have been noted; it may be of cardiac or nervous origin, or transitory. In some cases the œdema may be due to myxœdema. Sclerodermia and gangrene also occur.

Albany Medical Annals, November, 1900.

Historical and Practical Considerations Regarding Expert Testimony. By Mr. Learned Hand, LL. B.—The ancient writ *de ventre inspiciendo* is alluded to, as tending to prove that expert evidence is not a particularly modern institution. Quotations *ad libitum* from the legal lore *in re* expert evidence are given, and the author winds up with the conclusion that, as we *must* avail ourselves of expert evidence, the proper thing to do is to form a board of experts or to rely on a single expert not called by either side, who shall advise the jury of the general propositions applicable to the case which lie within his province.

Cerebrospinal Fever. By Dr. F. B. Maynard.—This disease, though much less prevalent than most of the contagious or infectious diseases, may yet be considered endemic in the United States; for no year now passes without a greater or smaller number of deaths from this cause being reported. Ice to the head and hot water to the rest of the body, seems, in view of the cerebral congestion, to be the only rational hydrotherapy. The constipation yields readily to calomel; potassium bromide, also, is a drug which may be used with great satisfaction. Iodide of potassium hastens the absorption of the exudate after the acute stage of the disease has passed. Antistreptococcous serum possibly prevents purulent infection. Lumbar puncture is only diagnostic. But, until the value of something new has been more clearly demonstrated, good nursing, easily assimilable nutriment in plenty, a quiet and darkened room for the patient, intelligent hydrotherapy, and the bromide of potassium will be our mainstays.

Physical Exercises in the Treatment of Pulmonary Tuberculosis. By Dr. Parker Murphy.—The author gives two cases in which appropriate breathing exercises were of great service in the incipient stages of phthisis. He properly regards the exercise as prophylactic.

American Gynæcological and Obstetrical Journal, October, 1900.

The Consideration of the Methods of Hæmostasis in Abdominal Surgery. By Dr. E. E. Montgomery.—While the author believes the angeiotribe to be a useful instrument, he prefers to use also the ligature. Catgut, properly prepared, is the material he prefers, and although the catgut for sale in the shops may be conscientiously prepared, the opportunities for infection in its preparation and preservation are so great, that in all cases he uses that which has been prepared under his own direction.

Varicose Veins of the Vulva Complicating Pregnancy; Dermoid Cysts. By Dr. Wilmer Krusen.—The recognition of this condition is comparatively easy; the swollen labia, with the compressible blue dilated veins, which can be distinctly seen and felt beneath the skin, resemble a "convoluted mass of angle worms." The chief danger is in rupture during pregnancy. The treatment to be employed during gestation is the use of astringent lotions and vulvar pads kept in position by the ordinary T-bandage or an elastic bandage. The patient should be cautioned to wear her clothing loose and to rest a few hours daily in the recumbent position. Lifting, straining, and constipation, should be avoided. If hæmorrhage should occur, it may be temporarily stopped by pressure; but the direct ligation of the vessel by ligature *en masse* is advisable. An illustrated case is reported.

A Case of Supposed Ureteral Traumatism. By Dr. Henry B. Stehman.

Treatment of Adherent Cysts of the Ovary and Broad Ligament by Incision and Drainage: Report of a Case. By Dr. J. E. Allaben.—In the treatment of adherent cysts of the ovary and broad ligament, it would seem, according to the author, that our efforts to release adhesions and remove cysts have been prosecuted to an extent unjustifiable and unnecessary in many cases. By incising, emptying, and draining the cyst cavity, we remove the cause that excites adhesions and induce conditions that ultimately work a permanent cure, and at the same time do not expose the patient to conditions prejudicial to life. This treatment is applicable to most other abdominal cysts, and a case which the author reports in detail seemingly justifies his conclusions.

Curage; Two Advantages it Possesses over Curettage. By Dr. Frank A. Stahl.—These are: 1. The superior advantage of the finger in recognizing foreign bodies; (2) the shelling out intact of the secundines, instead of the usual morcellation by the curette and forceps. Budin, of Paris, is quoted in favor of curage as against curettage.

Obstetrics, October, 1900.

Obstetrics in Paris. By Dr. N. I. Ratchinsky.—The author devoted the past summer to the study of obstetrics in Paris, and in this paper, read before the Society of Obstetrics and Gynæcology, of St. Petersburg, he comments very favorably upon the obstetrical institutions in that city. In nine of the municipal hospitals, there are special obstetric wards; there are three special institutions—Baudelocque's clinic, Tarnier's clinic, the *Maternité*, and the *Maison et école d'accouchements.* In addition, there are two asylums for pregnant women. On account of the extremely rigid competitive examinations, the *chef de service* and his assistants are men of ability and enjoy well-merited respect in Paris. Women are received, not only immediately before labor, but also in the eighth or ninth month of pregnancy, and in the case of abnormal pelvis, even in the first half of pregnancy. There is a special asylum for puerperal women. When the mother is discharged from the hospital she gets a card admitting the child to weekly inspection by a physician of the institution, and entitling it to receive a daily quantity of sterilized milk free or for a nominal price.

In regard to the teaching of obstetrics in Paris, the author is enthusiastic. The spectacular illustrations accompanying the lectures are commended, and he says that the reproach that the lectures are not comprehensive enough, is not justified. Although the students work very hard, the examination is sufficiently difficult to exclude forty per cent. of all applicants. The manner of conducting the work in Budin's clinic meets with unqualified praise. There are no special courses for physicians, but admission to the courses of instruction is offered to any physician who presents his passport, diploma, and a fee of thirty francs. Private courses—more practical and more useful than the official courses—are also open to the physician. In these, one can practise, under competent guidance, the examination of patients, operations on the mannikin, etc., for twenty francs an hour. The Dupuytren museum in the *École pratique de médicine* contains an excellent series of specimens on teratology and hermaphroditism, and a rare collection of pelves. The centres of scientific midwifery in France are the university clinics of Paris. Tarnier's forceps is used almost exclusively, and the author has been impressed with the ease with which the head can be extracted with this forceps, as compared with other types of obstetric forceps.

This forceps must always be applied in the transverse diameter of the head. It is regarded, in France, not only as an instrument for traction, but also as a means for rectifying the position of the vertex. Once applied, the position of the forceps in relation to the head is not changed. Pinard does not apply high forceps in a contracted pelvis of the second degree (when the conjugata vera is less than eleven centimetres). In these cases he performs symphysiotomy.

In addition to the mechanical washing of the hands, a solution of potassium permanganate is used, not only as an antiseptic, but as an indicator of the degree of cleanliness. A hand poorly washed will not dye. A five-per-cent. solution of citric acid is dropped into the eyes of the newly born as a prophylactic against ophthalmia. In Pinard's clinic, the antistreptococcous and antistaphylococcous serums are used quite extensively in puerperal affections—even in every woman who enters the clinic with ruptured membranes, if she has been examined outside *per vaginam.*

Difficult Labor Caused by Dropsy of the Child. By Dr. Carl Weidner.—The child was stillborn and was extensively œdematous. The umbilical cord was one inch in diameter, very œdematous. The author can only account for this by a tendency on the part of the mother to this peculiar dropsical condition, and a disturbance of the placental circulation.

Edinburgh Medical Journal, November, 1900.

Observations upon General Paralysis and its Occurrence in the Royal Navy. By Dr. F. H. A. Clayton.—*Ætiology.* An analysis of 236 cases in sailors shows the usual correspondence with the rise and fall of sexual activity. A history of neuropathic inheritance was rarely present, a fact to be accounted for by the strict physical and mental examination undergone by sailors on entering the navy. As regards marriage, 56 out of 78 subjects were either married or widowed. The naval dietary is more nitrogenous than that to which most men are accustomed, and it may be that the excess of animal food favors the occurrence of general paralysis, just as it is affirmed by Sawyer to be the cause of the increase of cancer. The disease seems rare in Eastern races and less highly civilized populations. As regards social position, out of 274 officers admitted to the Royal Naval Hospital at Yarmouth during the last twenty-five years, only 48 were paralytic cases, and of these 12 were warrant officers, coming from the seaman class. Whereas of 839 men, 188 suffered from that disease. Alcohol is the greater danger to the officer, sexual excess to the seaman. Yet in the case of the latter, a large proportion are steady married men. Seamen are more liable to venereal disease than landsmen, but are less affected by nervous "stress." Out of 42 cases under observation, there was a history of syphilis in 20, only one being an officer; in some cases it was impossible to obtain any history because of the degree of alienation. A table of all cases since 1863 shows that the ratios of primary and secondary syphilis were lowered to a minimum in 1878, since when there has been a steady rise; the mental disease rate has also steadily increased, especially in the last few years. But in 1866, when the syphilis rate reached its maximum, the mental disease rate was at its lowest, showing that syphilis cannot be the only factor in the causation of the disease. The author concludes that although syphilis or its toxines in many cases, by interference with nutrition, render liable many persons otherwise free, there is no evidence of direct connection. Most histories of recent and unusual indulgence in alcohol must be regarded as an effect, rather than as a cause, of general paralysis. But many authorities give it the most prominent place in the table of causes. The few cases following influenza and other fevers must be regarded as mere coincidences. Exhaustion of the nervous centres is infrequent among seamen, and the "everlasting strain of discipline" is unimportant, as it soon becomes a habit. In some cases a definite history of traumatism from falls or explosions is obtained. The author's conclusions as to causation are as follows:

1. No one factor, invariably antecedent and connected directly with the disease, is known.
2. The remote influences act usually by interference with nutrition and by promotion of the growth of less highly organized tissues, while the proximate influences act by lowering vitality.
3. The infrequence of nervous heredity argues against the wearing out of the highest nerve tissue.
4. A "specific" cause, as yet unknown, capable of developing the disease *per se,* seems to be indicated by all the evidence.

Nature of the Process. That the slow, simple, progressive dementia and loss of power is the measure of structural change, and that the mania and such non-essential complications of the disease are the result of a blood-state, seems not improbable. Many points suggest an association with the reproductive system.

The "Seizures" of General Paralysis. The occurrence of seizures seems to be directly promoted by the use of alcohol. Since its interdiction at Yarmouth, their number has been much decreased and the general condition of the patients benefited. This was to be expected, as a poison producing of itself a "convulsive neurosis" must increase the explosiveness of diseased neurones. The author has found that a change to a southerly wind frequently precedes an outbreak of seizures. He thinks them partly due to a toxine, although the constant association of marked intestinal fermentation indicates that its products also play a part.

The indications for the *treatment* of seizures are:

1. To assist in the destruction and elimination of toxines by improving the condition of the blood (by oxygen), and by acting on the various excretory organs, as in uræmia.
2. To relieve cerebral congestion. Best done by the use of ergot and icecaps.
3. To check the explosiveness of the neurone. Best done by the administration of chloral, from fifteen to twenty grains.
4. To maintain the strength and avoid complications, such as hypostasis, inhalation of food, diarrhœa and bedsores. Digitaline is often of service.

Where possible, life in a warm climate with almost vegetarian diet is worthy of trial. Two important points in the prevention of bed-sores, are a careful house staff and unlimited clean linen. Patients liable to fall about and become wet and dirty, should be kept in bed. To restrict the damage done by involuntary evacuations, a folded sheet should be kept between the thighs of the patients, and they should be turned out after each meal. Patients should be trained to lie on the side, scrupulous attention should be paid to the smoothness and evenness of the under sheet, and a water-bed should be used where necessary. Cotton wool should separate parts of the limbs that come in contact. Whenever a part becomes discolored or cold, additional heat in the form of hot-water bags, is necessary. When an abrasion occurs, it is protected by flexile collodion or iodoform dressing. No local means of hardening are used. By the use of the above measures, bed-sores are almost unknown at Yarmouth.

The simpler the diet, the less the liability to maniacal excitement. As sedatives and hypnotics, sulphonal and trional are recommended, and cod-liver oil, with the syrup of the iodide of iron, often checks the emaciation.

A St. Andrews Physiologist of the Past. By Dr. D. F. Harris.—A biographical sketch of John Reid, the Scotch physiologist.

A Contribution to the Mechanism of Articulate Speech. By Dr. S. W. Carruthers.—(*A continued article.*)

Acute Endocarditis. By Dr. G. A. Gibson.—The author's article is based upon a fatal case of pleuro-pneumonia complicated with acute ulcerative endocarditis affecting the aortic cusps, and occurring in a woman aged thirty-nine years. The valvular lesion was not recognized during life. The aortic orifice was found to be occupied by a large thrombus, which contained diplococci similar to those found in the sputum and pleural exudate during life. The case was an instance of single infection, no other organism being found in any part of the body. Regret is expressed that the antipneumococcic serum was not used. Endocarditis of diplococcic origin is most common in connection with the aortic cusps. It is highly probable that all cases of acute and subacute endocarditis are of microbic origin, and all may be termed infective. The author describes the manner in which micro-organisms attack the endocardium, and the anatomical changes which take place. The recognition of cases of acute endocarditis is very difficult, the general appearances being those of an acute infection. The elevation of temperature may be continuous or fluctuating. As regards the physical signs, there is a total absence of any characteristic features. In conclusion, the author refers to the great value of the recent work of Poynton and Paine on the bacteriology of rheumatism.

Annals of Surgery, November, 1900.

A Skiagraphic Study of the Normal Membral Epiphyses at the Thirteenth Year. By Dr. Eugene R. Corson.—A series of twelve skiagrams accompany this article, and demonstrate the great progress that has been made in X-ray technique. The internal structures of the bones and the smaller centres of ossification are shown most clearly. In the subject of his experiments, the author has found almost all the epiphyses further developed than the text-books indicate, and certain others started which, according to the authorities, had no right of existence. These skiagrams bring out the bones in perfect detail on a very light background and in many cases the very texture of the bone can be seen. As to the inaccuracies and deceptions of X-ray work, the author believes that it is only the amateur who is misled, and that to interpret correctly the X-ray findings is much more easy than, for instance, to learn the proper management of a microscope.

A Contribution to the Study of Intra-abdominal Omental Torsion. By Dr. Joseph Wiener, Jr.—Up to date only seven cases, including the author's, have been reported. Males predominate, and mostly those who have a hernia. The ætiology of this condition can be traced to forcible attempts to effect a reduction of the hernia. Diagnosis has never been made before operation. If we cut down on a hernia that has produced symptoms of strangulation and find only a strand of omentum in the inguinal canal, we should always investigate the intra-abdominal portion of the omentum, to make sure that there is no torsion present there.

Retrenchment of Lipomatous Abdominal Wall, Combined with Operation for Radical Cure of Umbilical Hernia. By Dr. James B. Bullitt.—The pendulous abdomen in this case hung two inches below the level of the perinæum when the patient (a female, aged thirty-eight years, weight 240 pounds) was erect. The usual operation for umbilical hernia was performed, and then the horizontal incision made at first was prolonged to the flanks, and a second transverse incision made seven inches below it. The enclosed wedge of several pounds of skin and fat was then removed, and the incision, after suturing, was found to measure twenty-two inches from flank to flank. The patient made an uneventful recovery. The operation was primarily one for hernia, but the author is inclined to think, considering his success in this case, that it would be justifiable to retrench a pendulous abdomen unaccompanied by hernia for the purpose of promoting comfort, and removing a possible cause of hernia.

Report of a Case of Actinomycosis Hominis. By Dr. John Chadwick Oliver.—As to the cause of this particular case, the author is at a loss, unless the infection occurred through the medium of wisps of hay, which the patient had often been noticed to chew while walking along the street.

Traumatic Rupture of the Small Intestine. By Dr. John J. Buchanan.—The blow that caused this rupture of the small intestine was a very slight one and left no mark; otherwise the case is of no especial interest.

A Study of One Thousand Operations for Acute Intestinal Obstruction and Gangrenous Hernia. By Dr. Charles Langdon Gibson.

Proceedings of Societies.

AMERICAN LARYNGOLOGICAL ASSOCIATION.

Twenty-second Annual Congress, Held (in Conjunction with the Congress of American Physicians and Surgeons) in Washington, on Tuesday, Wednesday, and Thursday, May 1, 2, and 3, 1900.

The President, Dr. SAMUEL JOHNSTON, of Baltimore, in the Chair.

(Continued from page 876.)

A Case of Bifid Uvula.—Dr. T. AMORY DE BLOIS reported this case. (*To be published.*)

Atrophic Rhinitis.—Dr. JAMES E. LOGAN read a paper on this subject. *(See page 357.)*

Dr. F. C. COBB, of Boston: I have been much interested in the paper of Dr. Logan's. After reading Grünwald's book, I find that he believes strongly in the accessory sinuses as a cause of atrophy, and I have been noting the difference in my ethmoid cases as regards the two sides. It seems to me that I can corroborate what has been said in so far that I have found that where there was a distinct discharge coming from under the middle turbinate, there seemed to be almost always atrophy on that side as compared with the other. Further than this, in the cases of ethmoiditis which I have watched for many years, in which the necrosis had extended farther up than I could reach, there has been progressive atrophy.

Dr. JONATHAN WRIGHT, of Brooklyn: I have been much interested in Dr. Logan's paper, and I have been much surprised to find that the reader of the paper, as well as the last speaker, laid such emphasis upon the accessory sinuses as the origin of atrophic rhinitis. Doubtless there are cases in which the two diseases are present; but a large number of post-mortem examinations of the accessory sinuses and of the nose have utterly failed to establish this contention of Grünwald's. I read Grünwald's paper carefully, but the examinations made by Dmochowski, Fraenkel, and Zuckerkandl have established pretty conclusively the fact that atrophic rhinitis and sinus disease, while they may dwell beneath the same roof, do not stand in relation one to the other of cause and effect. Nevertheless, it is certainly true that they do occasionally both exist. I have one case in which I have been very much interested; I have watched it for a long time, and it has gone on to such an extent of atrophy that the middle turbinated bone is much atrophied. The inferior turbinated bone, in my experience, is in a large proportion of the cases the one primarily attacked. It has in this case almost entirely disappeared, and upon one side I can watch the widening of the opening of the sphenoidal sinus. At first, it was a mere dot upon the mucous membrane, then it gradually grew wider, so that now a good-sized slate pencil could be put into it, and the interior of the sphenoidal sinus can be seen clearly from the front. The nose is usually full of crusts if it has not been attended to for a while, and you can see these crusts around the opening into the sphenoidal sinus, while the internal cavity is free from them.

It seems to me there is a slight misconception in regard to the pathology and ætiology of this disease, confounding one with the other. We read of atrophic rhinitis following hypertrophic rhinitis in adults or in children. We also read of it following purulent rhinitis, which occasionally exists in children, and as following sphenoidal sinus disease, but this does not in any way elucidate the pathology of the disease. What it is that produces this peculiar condition is very puzzling. In no other place in the body have we a process analogous to this. Sometimes a fibrous atrophy of the liver is cited as an analogous process, but the liver is an entirely different structure, so that we can hardly draw any analogy between the two organs. We have here, in the first place, a metamorphosis of the epithelium. We have an increase in the fibrous tissue, which changes from the hypertrophic to the atrophic form, in which the hypertrophic condition of the stroma is the first thing, and the atrophy the next thing, in which the glands gradually disappear, but usually do not do so entirely. I think the author is mistaken in his assumption that the glands entirely disappear in these cases. If you will take a nip out of the mucous membrane where atrophy is taking place, you will see that the glands are many of them destroyed, but not all, and in other regions in the nose, in nearly all cases, they are present. In these cases crusts form because the secretion is too viscid and does not flow away. By using a little routine detergent treatment, followed by the employment of thymol or menthol, you will start up a watery secretion, the mucus will flow away, and crusts do not form so readily, if at all. The degree of the viscidity adds to the amount of crusts, but not of the secretion.

The explanation which has struck me most forcibly as to the cause of this peculiar pathological process is the one recently advanced by two German observers, Cholewa and Cordes. They have made sections of the bone, and they find in all these cases a rarefying osteitis beginning with a bony hypertrophy, the little canals in the bone containing an artery and vein becoming occluded by the bone changes, and this cuts off the blood supply to the mucosa, so that at first we have, starting as a simple inflammation of the bone, a process which gradually shuts off the blood supply, and this is followed by thickening of the secretion and a metaplasia of the epithelium, and later there results atrophy. It seems to me that this theory is, on the whole, the most plausible one as to the causation of atrophic rhinitis.

Some other observers, following the example of Hopman and Fraenkel, have made anthropometric measurements of the skull, and have established to a certain extent the contention that atrophic rhinitis is due to a shortening and a broadening of the nasal fossa. According to the observations of Fraenkel, atrophic rhinitis is found more frequently in people who have the brachycephalic type of skull. Exhaustive statistics have been published by others, and, if we accept the statements of facts brought forward, they establish without doubt that in German Switzerland, where the brachycephalic type of skull exists very largely, atrophic rhinitis is much more frequent in people of this type. In people whose facial index, as obtained by these observers, is below 50°, the disease is comparatively rare, while in those in whom the facial index is above it, cases of ozæna or atrophic rhinitis are more frequently observed. The only criticism I have to make on these statements is that they are based upon observations made where the brachycephalic type of skull preponderates. It seems to me that, unless we admit that these gentlemen have distorted the facts, we must allow the conclusion that this type of skull is one which has a marked effect upon the number of cases of atrophic rhinitis. We cannot, however, fix upon any one particular cause for this disease, but it probably will be found that there is rather a combination of causes which must be present in order to produce the affection.

Another point is with reference to the question of sex. We know that it is said to be much more frequent in females than in males. With reference to sexual life, it has some relation as bearing upon the cause of this disease. In females the disease becomes most pronounced at the time of puberty. We see few such cases after the menopause. These patients do not all die; they must recover, and therefore in all probability the sexual life in the female, and possibly in the male, is a factor in this disease.

Dr. Henry L. Swain, of New Haven: I should like to emphasize one portion of the remarks of Dr. Wright, namely, that we cannot suppose that there is only one cause acting to produce atrophic rhinitis. There is no question in the minds of most of us but that we have sometimes thought that we had to do with a simple case of the disease, and yet later, as I have lately in my own practice in one case, had to open up the ethmoid cells and scrape them in order to cure the disease. In such cases the ordinary treatment may have sufficed for a certain time, but the patients have eventually returned and we have had to do something more radical to effect a cure.

As to the theory that Dr. Wright has suggested, where the little canals in the bone containing an artery and vein become occluded by the bony growth. This produces a rarefying osteitis, starting the necessary changes in the mucous membrane to incite the production of atrophic rhinitis. This theory is also exploited by certain observers to explain the production of œdematous rhinitis and polypoid growths on the middle turbinate. It would seem rather improbable that the same choking of the blood-vessels should produce two widely different results. I think you will all agree that it is very uncommon for us to find polyps and œdematous rhinitis existing in conjunction with atrophic rhinitis. Why should a blocking of the blood-vessels in the canal produce one condition in one case and the very opposite in the other?

It is possible that, as the brachycephalic type of nose, referred to by Dr. Wright, is one which cleanses itself with more difficulty than the narrower nose, a less amount of disturbance to the mucous membrane would be required to produce atrophic rhinitis in the broader than in the narrower nostrils, which we are more accustomed to see in this community.

Dr. Wright: I have seen few cases indeed after the menopause, and a certain number of them have been cured. I have one or two cases in mind now in which the symptoms of atrophic rhinitis disappeared and the patient is well. These are chronic cases and they come to us for a certain length of time, and then disappear about the time of the menopause.

Dr. Swain will remember some investigations of my own a number of years ago in regard to the different muscular coats of the artery and vein. At that time I held that the vein was much more compressible than the artery, and when the artery was dilated it compressed the vein and in this way produced œdema. I can readily imagine that certain bone changes, by narrowing the lumen of the canal, would interfere with the vein and produce engorgement of the mucous membrane, etc. Since then I have come to realize that in certain cases the causative factor is some vasomotor change in the blood-vessels, these changes having more to do with causing the œdematous condition than the bone changes proper. In other cases, however, I believe the bone change is an important factor in the ætiology of œdematous rhinitis, or nasal polypi, but in atrophic rhinitis we have to suppose that the bony canals become not only narrowed, but obliterated, to see how all nourishment to the tissues may be shut off.

Dr. William E. Casselberry, of Chicago: Some years ago, in making a study of this subject, I went over very carefully all the different theories that have been mentioned here, and I was impressed with the fact that none of them explained thoroughly the entire field of changes which takes place in connection with atrophic rhinitis. We speak of atrophy in connection with a purulent discharge from the sinuses, and of the incrustation and desiccation of secretions in consequence of it. We see some such cases. We also see cases in which the reverse process is present, in which the middle turbinated body, intead of being atrophied and smaller, is immensely hypertrophied upon the side of ethmoid disease or in cases of empyema of the antrum. Furthermore, I fail to see how empyema of the antrum, or of the sphenoid, or of the ethmoid sinuses will produce the collateral symptoms which occasionally accompany atrophic rhinitis. There is atrophy of the mucosa, not only in the nose, but in the pharynx, extending low down in the pharynx. There is atrophy, failure of development, or early shrinkage of the mucolymphoid tissues, including the tonsils. We find small tonsils in most cases of atrophic rhinitis, or later in life the tonsils atrophy much more quickly than in other people. We find a non-sensitive condition of the mucous membrane, indicating failure of development or atrophy of the sensitive nerves of the part. They are notoriously easy subjects for novices to examine. Students like to get hold of them because they can get good laryngoscopic views. Occasionally there is apparent atrophy of the larynx. I have seen cases of conjoined laryngeal and tracheal ozœna, in which the secretions which accumulated in the larynx and trachea, even to the point of dyspnœa, were similar to those in the nose.

All these changes I cannot reconcile with a strictly local cause in a particular sinus attached to the nose. I had occasion one winter to make exploratory punctures into the antrum of Highmore in many cases of atrophic disease of the nose, and in the majority of them it was easy to make the perforation; even the bone of the nasal wall seemed to be atrophied and thinner than in other subjects, so that, while not doubting the existence of atrophic states caused by or in conjunction with sinus suppuration, I do not ascribe all cases of atrophic rhinitis to empyema of one or more of the accessory sinuses.

Dr. W. K. Simpson, of New York: With reference to the remarks of Dr. Wright, I have seen marked cases of atrophic rhinitis in women beyond the age of the menopause. During the last winter I had a patient with marked atrophic rhinitis, who told me that she had had it from childhood. She was a woman about sixty years of age, healthy and robust. I wish to record myself as saying that I do not think any one cause can be ascribed for this disease, and that it is in no way due to or associated with hypertrophic rhinitis. I consider the two diseases entirely different, and one is not necessarily dependent upon the other. My experience has been that we see a great many more cases of so-called hypertrophic rhinitis, if we are right in using this term, and how many of them ever reach the atrophic form? Very few. This is simply a clinical fact. I should like to ask Dr. Logan what the result was in the case of the Scotchman.

Dr. Logan: In reply to Dr. Simpson's question, in 1896 the operation was done, and the first of this month the patient wrote me that he had had practically no trouble of any kind since.

There are one or two points that I desire to refer to that have not been brought out in the discussion. The first one is: Where do these secretions come from? We are not able to explain satisfactorily where all this accumulated mass of incrusted secretions is coming from. I do not pretend to say; I doubt whether any one of us can give a satisfactory explanation of the cause of atrophic rhinitis. Whatever the cause may be, I believe there is great lack of drainage.

When I was talking over the matter with Dr. Casselberry, he mentioned a case of atrophy which was entirely relieved by an operation upon the sæptum. I can readily understand that a correction of a deflected sæptum, establishing freer and more complete drainage, would be the factor in relieving this atrophy. In the policeman whose case I reported, curettement of the ethmoid did not entirely establish drainage. I found a small spur in the posterior portion of the middle meatus, and the removal of that was followed by almost entire relief. He is perfectly free to-day from any atrophic condition.

(To be continued.)

Book Notices.

A Treatise on Mental Diseases. Based upon the Lecture Course at the Johns Hopkins University, 1899, and Designed for the Use of Practitioners and Students of Medicine. By Henry J. Berkley, M. D., Clinical Professor of Psychiatry, the Johns Hopkins University, etc. With Frontispiece, Lithographic Plates, and Illustrations in the Text. New York: D. Appleton and Company, 1900. Pp. xv-601.

In the present state of psychiatry, it is extremely difficult to decide what a practical and at the same time comprehensive handbook on mental diseases should contain. The clinical descriptions must be full. The results of recent investigations in human and experimental pathology are too pertinent to be slurred. The relationship of psychiatry with biology, anthropology, and other kindred sciences demands more than passing notice. Detailed means of treating and caring for the insane are the chapters to which the practitioner will turn first, and yet the book must be limited to one volume!

It is unavoidable that something important should be neglected, and the problem is generally solved by the author's giving an unequal prominence to the parts of his theme which interest him most, and upon which he is best qualified to speak with authority. The treatise before us exemplifies this statement. The author has identified himself with psychiatry chiefly through his pathological studies, and his present production will attract the largest share of attention by reason of the chapters on human and experimental pathological anatomy. The part of the book dealing with pathological questions is warmly and unqualifiedly commended. It contains a very lucid statement of the part played by the vascular and lymphatic systems in insanity, and gives a well chosen summary of the pathological status of the brain. Were the clinical sections equally full, the treatise would pass far beyond its 575 pages. But, although the clinical chapters are disproportionately brief, they present the subject clearly and give a very good general idea of the various types of insanity, and the best methods of treatment. Altogether, the book merits a warm reception by both alienist and general practitioner, and reflects great credit on its author. The paper, illustrations, and typographical work are of the highest order of excellence.

Traité pratique des déviations de la colonne vertébrale. Par P. Redard, Ancien chef de clinique chirurgicale de la Faculte de médecine de Paris, etc. Avec 331 figures dans le texte. Paris: Masson et Cie, 1900. Pp. vii-466.

This monograph is a mine of information on the subject of spinal distortions, though the symptomatic classification and handling throw into juxtaposition processes which have little in common, and hinder that thorough and well-proportioned treatment which one expects in a treatise.

The work with portable spinal supports on the principle of the lever, which has been so successfully employed in the treatment of Pott's disease in this and other countries, receives the scantiest mention by the author, who confines his description of mechanical treatment to jackets of plastic material and to apparatus for use during recumbency.

It is interesting to observe that French surgeons, in common with those of other countries, are much less extreme in their advocacy of rapid and forcible reduction of the *bosse* than they were when this method was first brought forward. Our author operates frequently without an anæsthetic, and only in those recent deformities of young children which are easily reducible. Even Calot, with whose name the procedure is associated, now uses only moderate force, without bone excisions.

The larger part of the work (from page 115) is devoted to the consideration of lateral curvature of the spine, and one is equally impressed by the formidable number of conditions in which this symptom may occur, and by the complication and difficulty of the treatment.

A useful but incomplete and inexact bibliography is added to the work, but a topical index is wanting.

Rhinology, Laryngology, and Otology, and their Significance in General Medicine. By E. P. Friedrich, M. D., Privatdocent at the University of Leipzig. Authorized Translation from the German. Edited by H. Holbrook Curtis, M. D., Consulting Surgeon to the New York Nose and Throat Hospital, etc. Philadelphia and London: W. B. Saunders & Company, 1900. Pp. 5 to 348. [Price, $2.50.]

It is a fortunate thing that this work has now become accessible to English readers, for, while it traverses a familiar ground, the author's ways of looking at things and his sensible views of the reciprocal relations of specialist and general practitioner have enabled him to write a book which freshens up an old subject and one which every medical man can read with profit.

The preface states that "every specialty should take an active part in all the problems with the solution of which general medicine is concerned. . . . Whenever this co-operation is lacking, the specialty is in danger of becoming a mere source of revenue, and of losing its scientific significance, while, on the other hand, the general practitioner will fail to recognize special symptoms which might have been of the greatest importance to him in the recognition and treatment of his cases." We quote the sentence in full, for it shows very fairly the standpoint from which the book is written. The range of ground covered may be learned from the chapter titles, which in brief are as follows: Diseases of the Respiratory Organs, Circulatory System, Digestive System, Blood, Chronic Constitutional Diseases, Acute and Chronic Infectious Diseases, Kidneys, Skin and Sexual Organs, Eye, Intoxications, and Nervous Diseases. An appendix treats of reflex neuroses of the nose, of the significance of some of the cranial nerves in rhinology and laryngology, and of diseases in their relation to the specialty, of the brain and meninges. Under each chapter the grouping of topics is orderly and logical, and the general arrangement is such that with the aid of an excellent index the reader can very easily find any desired paragraph. References to literature are abundant.

The editor of the present translation says that no attempt has been made to render into elegant English the characteristic construction of the German text. This remark disarms criticism which might otherwise be expressed, yet the reader will have no difficulty in getting at what he wants, and need not hesitate to engage in the perusal of what is really a valuable text-book.

The editor also says that he has no hesitation in "indorsing the book as the best treatise upon the general relationship of general diseases to those of the ear, nose, and throat that has appeared up to this time." This is strong commendation, but after looking the volume over, we are quite disposed to assent to it.

Anleitung zur Diagnose und Therapie der Kehlkopf-, Nasen- und Ohrenkrankheiten. Vorlesungen gehalten in Fortbildungscursen für praktische Aerzte. Von Dr. Richard Kayser, in Breslau. Mit 121 Abbildungen. Berlin: S. Karger, 1900. Pp. 169.

This is a manual designed as an introduction to rhinology and laryngology. Only the main topics of these specialties are spoken of, and that mention, too, is rather superficial. Some of the illustrations are fairly good, while others are extremely poor. The work is a mere repetition of a dozen others which have appeared during the last few years, and calls for no special remark.

A Text-book upon the Pathogenic Bacteria. For Students of Medicine and Physicians. By Joseph McFarland, M. D., Professor of Pathology in the Medico-Chirurgical College, Philadelphia, etc. With One Hundred and Forty-two Illustrations. Third Edition, Revised and Enlarged. Philadelphia: W. B. Saunders & Company, 1900. Pp. 7 to 621. [Price, $3.25.]

The third edition of Dr. McFarland's book brings his work on the pathogenic bacteria up to date. The chapter on Immunity and Susceptibility, which was good in the first edition, has been amplified and extended so as to include even a brief description of Ehrlich and Wasserman's lateral-chain theory. This chapter is one of the best in the book, and can scarcely fail of leaving a clear impression of the significance of the theme in the mind of the reader. The chapters on technics and on the individual species of bacteria are fuller than in the previous editions, and some new illustrations have been added. Altogether, this is an excellent and valuable manual, and it is not surprising that it has been successful. It will be even more so, we think, in its revised form.

Hygiène et morale. Etude dédiée aux jeunes gens par Le Docteur Paul Good, Ancien médecin de la Marine, etc. Ouvrage édité par la ligue de la moralité publique. Sixième mille. Saint-Etienne: Bureaux du Relèvement Social, 1900. Pp. 62.

A plea for sexual purity in young men, based upon moral considerations alone, would probably carry little influence with it. The author, however, uses not only every moral argument to this end which he can reasonably bring to bear, including deep ethical and social considerations, but also makes a well-meant attempt to prove that, physiologically, the chaste man is apt to be superior to him who indulges his sexual passion. The little work is interesting and evinces the author's sincerity on every page.

The Physical Signs of Pulmonary Disease. By Graham Steell, M. D. Edin., Fellow of the Royal College of Physicians of London, etc. For the Use of Clinical Students. Second Edition. London: Simpkin, Marshall & Company. Philadelphia: P. Blakiston's Son & Company, 1900. Pp. 98. [Price, $1.25.]

This is a complete little work on the data essential for diagnosticating diseases of the lungs. Percussion, inspection, auscultation, palpation, and succussion are in turn considered, and the modifications from the normal induced by disease are fully set forth and described. We note with pleasure that mensuration is given considerable space and its importance fully insisted upon in estimating abnormal thoracic conditions.

Bacteriology and Surgical Technique for Nurses. By Emily M. A. Stoney, Superintendent of the Training School for Nurses, St. Anthony's Hospital, Rock Island, Ill., etc. Illustrated. Philadelphia: W. B. Saunders & Company, 1900. Pp. 5 to 190. [Price, $1.25.]

This is an admirable little book for the purpose for which it was written. It contains just enough information on bacteriology to give a nurse a sufficient comprehension of the subject to enable her to understand the terms she hears in constant usage and the books she may reasonably be expected to read. Part II deals with surgical technics, and covers all that a nurse may in reason be expected to know about sterilization, instruments, sutures, and ligatures, and the care of patients before, during and after operation. There is a special chapter on gynæcological examinations and operations, and there is an excellent one on operations in private practice. For a work that deals with such a mass of detail, it is exceedingly practical. In this, we judge, its greatest value will be found, not only for nurses, but for all who read its well-written pages.

BOOKS, ETC., RECEIVED.

A Reference Handbook of the Medical Sciences, embracing the Entire Range of Scientific and Practical Medicine and Allied Science. By various writers. A New Edition, completely Revised and Rewritten. Edited by Albert H. Buck, M. D., New York. Volume I. Illustrated by Numerous Chromolithographs and Four Hundred and Ninety-eight Fine Half-tone and Wood Engravings. New York: William Wood and Company. Pp. x-799.

Text-book of Physiology. Edited by E. A. Schäfer, L.L. D., F. R. S., Professor of Physiology, University of Edinburgh. Volume Second. Edinburgh and London: Young J. Pentland. New York: The Macmillan Company, 1900. Pp. xxiv-1365.

A Manual of Materia Medica and Pharmacology. Comprising all Organic and Inorganic Drugs which are and have been official in the United States Pharmacopœia together with Important Allied Species and Useful Synthetics. Especially Designed for Students of Pharmacy and Medicine as well as for Druggists, Pharmacists, and Physicians. By David M. R. Culbreth, Ph. G., M. D., Professor of Botany, Materia Medica, and Pharmacognosy in the Maryland College of Pharmacy, etc. Second Edition, Enlarged and thoroughly Revised. With Four Hundred and Sixty-four Illustrations. Philadelphia and New York: Lea Brothers & Company, 1900. Pp. xv-17 to 885.

The Theory and Practice of Hygiene (Notter and Firth). By J. Lane Notter, M. A., M. D. (Dub.), Fellow of the Chemical Society, etc., and W. H. Horrocks, M. B., B. Sc. (Lond.), Assistant Professor of Hygiene in the Army Medical School, Netley, etc. Second Edition. Philadelphia: P. Blakiston's Son and Company, 1900. Pp. xvii-1085.

A Practical Treatise on Fractures and Dislocations. By Lewis A. Stimson, B. A., M. D., LL. D. (Yalen.), Professor of Surgery in Cornell University Medical College, New York, etc. Third Edition, Revised and Enlarged. With Three Hundred and Thirty-six Illustrations and Thirty-two Plates in Monotint. New York and Philadelphia: Lea Brothers & Company, 1900. Pp. xxii-19 to 842.

Physical Diagnosis of Diseases of the Chest. By Richard C. Cabot, M. D., Physician to Out-patients, Massachusetts General Hospital, etc. With One Hundred and Forty-two Illustrations. New York: William Wood and Company, 1900. Pp. xv-310.

Life and Letters of Thomas Henry Huxley. By his Son, Leonard Huxley. In Two Volumes. New York: D. Appleton and Company, 1900. [Price, $5.]

Miscellany.

Paralysis Agitans without Tremor.—At a meeting of the New York Neurological Society, held on November 6th, Dr. M. G. Schlapp presented a case of which the chief features were the rigidity of the muscles, the expressionless face, and the position of the arms, body, and hands. The flexor muscles were more contracted than the extensors. There was no tendency to fall in any particular direction.

The Secretion of Camphor by Animals.—Mr. Nathan Banks writes to *Science* for October 26th to say that Mr. O. F. Cook's article in a recent number of that journal recalls some observations by the late E. D. Cope, who wrote in the *Transactions of the American Entomological Society,* Vol. 3, May, 1870, pp. 66-67, as follows: "The species of *Spirobolus* and *Julus* discharge a yellowish juice having much the smell of aqua regia and a very acrid taste. The *Spirostrephon lactarius* exudes from a series of lateral pores a fluid which has in its odor a close resemblance to creosote. The *Polydesmus virginiensis* is defended by a fluid which has almost exactly the smell of hydrocyanic acid and is fatal to small animals. *Petaserpes rosalbus* secretes a considerable quantity of a milky substance, which has the perfume of gum camphor."

A Chance for Supernumerary Doctors.—The *Indian Medical Record* for August 15th cites the following advertisement from the "Calcutta daily papers":

"Wanted.—A European, Eurasian or an Armenian smart doctor, thoroughly honest, on salary rupees one hundred per month, with free board and lodging, for the purpose of private treatment and to keep private daily accounts, to write few letters when necessary, and pay servants' wages monthly; nothing more work to do. Apply to Nawab Syed Delawar Reza, Mithapur, Bankipore, Maijee's Kothi.

"*N. B.*—Those not of noble birth need not apply."

[The *Indian Medical Record* waxes indignant at the incongruity of the proposition. But after all, the poor man wants a medical steward; but a steward, in Greek, is *Ταμίας*, which in Latin may be rendered *dispensator; Anglicè*, dispenser, or one who dispenses, and therefore belongs to a dispensary, or in common parlance, a "doctor's shop"; *ergo* a doctor—and there you are!]

Why the Chinese Eat Rats.—The *Dietetic and Hygienic Gazette* for October says that the *Lahore* (India) *Tribune* quotes a Chinaman's explanation of the use of rats for food purposes as follows: "What a carrot is to a horse's coat, a rat is to the human hair. Neither fact can be explained, but every horseman knows that a regimen of carrots will make his stud smooth and lustrous as velvet, and the Chinese, especially the women, know that rats used as food stop the falling out of hair and make the locks soft, silky and beautiful. I have seen it tried many times."

The Relation of the Specific Gravity of the Blood to its Percentage of Hæmoglobin.—Dr. Busch and others (*Buffalo Medical Journal,* October) publish some observations supplementary to their original paper in the *Medical News* for December 21, 1895, which lead them to the following conclusions:

1. In most cases the specific gravity and the percentage of hæmoglobin of the blood present such a close relation to one another that the latter may be predicted from the former with sufficient accuracy for clinical purposes. 2. Both von Fleischl's and Gowers's instruments are liable to an error of ten per cent. or more. 3. There is likely to be very slight, if any, error in the determination of the specific gravity by Hammerschlag's method.

The Advantages of Living out of Town.—The *British Medical Journal* for November 3d says: Reference was recently made in these columns to Dr. Vivian Poore's observations on the influence of locality on expectation of life, and particularly on the ill effect of living near the centre of large towns rather than on their outskirts. It has been estimated that the sacrifice of ten per cent. of a man's working day spent in traveling to and from the heart of a great city means an eventual increase of twenty-five per cent. of his working years. It is stated that the New Zealand government proposes, as owner of the railways, to issue weekly tickets to the poorer classes with the view of relieving the congestion in the cities. In 1889, Hungary established what is known as the "zone system," on a similar base, which has resulted in a vast increase of traffic, and has consequently been attended by financial success.

Testimonial by the New York Pathological Society to the Memory of Dr. Sayre.—At a recent meeting of the New York Pathological Society the following preamble and resolutions were adopted:

"In the death of Dr. Lewis Albert Sayre the New York Pathological Society loses the last of the members who brought it into existence. The first meeting of the society was held in Dr. Sayre's office on June 14, 1844, Dr. George A. Peters and Dr. Middleton Goldsmith participating in the formation of the new society. Dr. Sayre kept his interest in the society alive, occasionally attending its meetings, until the end of his professional activity. It is with a special sense of loss that the society sees fade from its list of active members this illustrious name, enrolled at its first meeting when 'the oldest pathological society in the world,' as he was fond of saying, was created.

"The New York Pathological Society now records upon its minutes the death of Dr. Lewis Albert Sayre, and adopts the following resolution:

"*Resolved,* That the sympathy of the New York Pathological Society be extended to the family of Dr. Sayre in their bereavement, and that the above testimonial be published in the current medical periodicals."

(Signed) W. P. Northrup, M. D.,
James Ewing, M. D.,
E. K. Dunham, M. D.,
Committee.

Suicide and Homicide in the Army.—The tabulations of the cases of suicide and homicide which occurred in the army during the years 1898 and 1899 are compared in the annual report of Surgeon-General Sternberg with the cases which occurred during the ten years 1888-'97. Contrary to the general expectation, it is found that there were among the troops during the past two years relatively fewer homicides than during the years of the previous decade, and that the mean annual ratio of suicides per thousand men was about two and one-half times greater during the decade of peaceful garrison life than during the recent period of active military service. The following figures show the rates for these years:

Year.	Mean Strength.	Suicides.		Homicides.	
		Number.	Ratio per 1,000.	Number.	Ratio per 1,000.
1888.	26,739	8	.30	5	.19
1889.	27,206	21	.77	5	.18
1890.	26,684	16	.60	7	.26
1891.	26,460	22	.83	8	.30
1892.	26,861	22	.82	5	.19
1893.	27,659	22	.80	5	.18
1894.	27,674	18	.65	10	.36
1895.	27,326	19	.70	1	.04
1896.	27,183	12	.44	4	.15
1897.	27,374	10	.37	5	.18
Mean of decade. . . .	27,116	17.0	.63	5.5	.20
1898.	147,795	38	.26	19	.13
1899.	105,546	30	.28	23	.22

The Doctrine of the Authorities on Yellow Fever.—The *Louisville Monthly Journal of Medicine and Sur-*

gery for October says that Dr. Francisco Menocal, in the *Progreso medico* of Havana, for February, has made an exhaustive study of the teaching of Sternberg, Sanarelli, and Wasdin and Geddings, on the subject of yellow fever, and thus sums up their teaching:

Sternberg.—1. Yellow fever is an infectious disease, probably of parasitic origin, of gastro-intestinal location, and is not a septicæmia. 2. The disease is contracted by the ingestion of the infectious agent with the water or the food. 3. The intestinal discharges and the characteristic vomit are the principal vehicle of contagion. 4. Not knowing the parasite and the biological laws which govern its growth, we are unable to establish a scientific basis for effective disinfection, or a rational prophylactic.

Sanarelli.—1. Yellow fever is an infectious disease, parasitic, produced by the *Bacillus icteroides,* located in the blood of the patients, and in the blood and viscera of the victims of yellow fever. 2. Yellow fever is contracted through the digestive tract [although Sanarelli does not exclude the possibility that in certain cases the infection may be through the respiratory apparatus]. 3. From its beginning it is a septicæmia [although he admits that in many cases the parasite does not exist in the blood], concentration in the spleen, or destruction in the presence of other organisms which produce the secondary infection. 4. That the intestinal contents and the discharges are not the vehicle of contagion, except in those cases in which the blood of a hæmorrhage carries the parasite to the cavity of the digestive tube. [He does not indicate to us, however, which is the habitual vehicle of that contagion.]

Wasdin and Geddings.—The extensive investigation made in the city of New Orleans, and also in Havana, forms the basis of some very interesting conclusions by these gentlemen, who lean to the side of Sanarelli. Especial attention is paid to the subject of the *Bacillus icteroides* and to the point of entrance, but very little additional light is thrown on the obscurity of the subject.

The Annual Report of the Surgeon-General of the Navy.—The *Army and Navy Journal* for November 17th contains an excellent summary of the annual report of Rear Admiral Van Reypen, the surgeon-general of the navy, from which we extract the following:

In the year the naval hospital at Cavite has been more thoroughly equipped, and is now able to properly care for such cases as may be transferred to it. The new naval hospital at Mare Island is now occupied and in every respect meets the requirements of the Asiatic station. The report regrets the inability to proceed with the erection of an addition to the naval hospital at Newport. The bids received were in excess of the appropriation. An additional appropriation has been asked for.

The Hospital Corps organization has now reached a standard of efficiency enabling the bureau to make all appointments of hospital stewards from hospital apprentices, first class, by examination and promotion. It is regretted that the enlistments of hospital apprentices are not as yet sufficient to keep as large classes as are desired at the larger naval hospitals for instruction. There are now seventeen vacancies in the list of assistant surgeons, but it is hoped that these vacancies will be filled so soon as it is generally known that recent legislation gave assistant surgeons in the navy the same rank as assistant surgeons in the army. The medical officers of the navy have maintained their standard of efficiency. They have been constantly employed, and very few have during the past year been able to obtain the customary leave, even during the summer months.

The naval hospital fund shows that there was expended since July 1, 1899, $137,334.29, leaving a balance on hand June 30, 1900, of $177,999.63.

The report describes repairs made at the naval hospitals at Widow's Island, Portsmouth, Chelsea, Newport, New York, Philadelphia, Washington, Norfolk, Port Royal, Pensacola, Mare Island, Sitka, Yokohama and Cavite, and those contemplated together with improvements at Chelsea, Newport, New York, Mare Island and Yokohama. Suggestions are made as to sanitary improvements in the marine barracks at the navy yard, Portsmouth, N. H., and an improvement in the sanitary condition of the Washington yard is noted, although increased dispensary facilities are greatly needed. The discovery and abolition of a hidden overflow sewer that had been contaminating the health of the men at the Norfolk yard is mentioned. The raising and draining of the parade ground is advocated. General unsanitary conditions are declared to exist at the Mare Island yard that should be remedied.

Discussing the health of the naval station at Annapolis, the report says that the relation between the city and the academy is so close that it is to be regretted that there is no system of placarding premises in force in the city, and that the quarantine restrictions are not as rigid as the interests of the academy demand. In connection with the plan of razing the old buildings to make room for permanent structures, the report calls attention to the necessity for an adequate provision for the care of the sick. A detached building for the treatment of the sick is considered imperative.

The artificial illumination, with which cadets at the academy necessarily do much work, is now barely sufficient, and an improvement in this respect is much to be desired. On dark days the light in the temporary section rooms is also inadequate.

"Casualties from football have not been serious," says the report, "and have not involved much loss of time from academic work. The game has become so specialized that it is played by only a small percentage of cadets, and therefore its benefits are confined to a few. Its disadvantages were represented during the year by 101 sick days and 113 additional days lost from drills. It was responsible for 4 fractures, 1 luxation, and several sprains and contusions."

The buildings at marine headquarters, Washington, D. C., are declared to be inadequate, and the danger of contamination of the water supply at the station at Puget Sound is pointed out. The improvements made at the naval station at Havana, Cuba, are given at some length. So great had been the deterioration under Spanish rule that some rooms had been connected with cesspools and sewers by tunnels made by rats that had held possession undisturbed. Though the general health of the station at San Juan, Porto Rico, has been good, the surgeon-general does not consider its location as "very desirable." Not a case of yellow fever was reported on the island in 1899. Owing to general vaccination smallpox has become infrequent.

Of Guam the report says that leprosy is not increasing. There are only 14 cases on the island. The health record of the U. S. S. *Yosemite,* anchored near Cabras Island, has been so good that it is deemed a naval station established there would enjoy far better health than the one at Agana, where the unsanitary natives have infected the soil. The health of the station at Cavite, P. I., is "not satisfactory," according to the report, and the dispensary and sick bay are inadequate.

THE NEW YORK MEDICAL JOURNAL, December 8, 1900.

Original Communications.

THE OPERATION FOR HYPOSPADIAS, WITH THE DEMONSTRATION OF THREE CASES SUCCESSFULLY TREATED BY THE FORWARD DISLOCATION OF THE URETHRA.*

By CARL BECK, M. D.,
NEW YORK.

One would ordinarily be surprised to learn, until an investigation is made, that hypospadias is among the most frequent malformations affecting the human body. Considering the fact that Rennes detected hypospadias once in every 300 French army recruits, a true notion of the average frequency of this malformation will be formed. But this enormous number seems to be greatly underestimated, not only among the laity, but also by the medical profession in general; which is well explained by the natural aversion of the unfortunate patients to mention their deformity. In view of such a high percentage it might be assumed that more importance would be attached to hypospadias than is customary. As before stated, the annoyance caused by it is not so manifest as that caused by various other malformations, but just on account of its secret nature it exerts a much more depressing psychical influence than do others, aside from the worst varieties of hypospadias, namely, the perineal and penoscrotal forms, where patients, even when they pass urine in the sitting position, soil the adjacent parts and their garments. In these cases the sexual function is out of the question; fortunately, they are of rare occurrence.

Let us first of all consider the common and frequent balanic hypospadias, which with very few exceptions shows great disturbance in discharging urine and semen. The urinary stream is nearly always downward, obliging the patient to urinate either squatting or seated in the female posture, or directing the stream by forcibly elevating the penis.

The narrow orifice, present in the great majority of cases, also proves an obstacle in the free discharge of the urine, and breeds all the well-known dangers of urethral contraction (dilatation of the area in front, as well as of the bladder and ureters, followed by pyelitis and nephritis, backward).

Fecundation is nearly always impossible on account of the wrong direction of the urethral canal. Among more than one hundred married hypospadiacs, whom I have had an opportunity to examine, I found that none had children. Bearing in mind how depressing the effect of all disturbances of the sexual function is, it would not be surprising if the examination of the statistics on suicide showed that many of the victims were subjects of hypospadias.

That the various types of hypospadias (*ὑπό*, "under," and *σπάζω* "to open") were known in ancient times, is evident from Heliodorus, Antyllus and Paulus (*περί ὑποσπαδιαίων*). These authors declared all hypospadiacs impotent, in view of the abnormal direction of the stream during the ejaculation of the semen. Only balanic hypospadias, where the orifice was below the frenulum (*υπο τω κυνὶ*), was considered an object for operative intervention at that time. But this was done in the most radical manner by simply amputating the glans on a level with the abnormal opening. This extraordinary procedure naturally found but little imitation, and during the sterile surgical era, so characteristic for the fifteen centuries after Galen, no further attention was given to hypospadias.

The immortal genius of Dupuytren gave a new impetus to this question by his classical studies on hypospadias. Practical experiments made by Bouisson, who was the first to call attention to the importance of the preliminary removal of the glandular curvature, gradually revived surgical interest in the subject. But as the early operations for hypospadias were based on the principle of simple direct union of the margins of the abnormal groove, disappointment at the results in practice was great. This begets small wonder if the limited space of the field of operation, the necessity of introducing a catheter, the constant contact with urine, and, especially, the pre-antiseptic *modus operandi,* are considered. The formation of an entirely new canal, as advised by Duplay, must be regarded as a great advance. The tube was created by making two longitudinal incisions alongside of a catheter passed to serve as a mould, and at equal distances from the median line. Thence, short flaps were dissected inwardly and united above the catheter.

Thiersch deserves great credit for having modified the arrangements of the flaps in such a manner that their raw surfaces were superimposed upon each other, the lower flap turning its integument toward the new canal, and the upper one turning its epidermal surface outward.

I have had an opportunity to employ the latter method very frequently. With all due credit to the ingenuity of Thiersch's idea, it must be admitted that it is only when the wound edges are very well approximated and the sutures applied with the most minute care, that union of the lateral wound surfaces is accomplished once in a while, frequently only a portion of the wound-margins uniting. But even when union of the flaps becomes perfect, in by far the greater majority of cases, a fistula at the junction of the urethral opening with the newly formed canal remains, so that often many successive stages are necessary, sometimes as many as twenty operations, until a satisfactory result is obtained.

These failures are easily understood if we consider the great difficulties encountered during the after-treatment. First of all, a foreign body, a tube, must be introduced into the newly formed wound channel; and it is only with great difficulty that it can be kept *in situ.* Again, the direct contact of such decomposable elements as those of the urine, as well as the mechanical injury caused by the impact of the stream itself, interferes with an aseptic course to a degree that can easily be imagined.

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*Read at the meeting of the Medical Association of the Greater City of New York, October 8, 1900.

It should furthermore be considered that permanent drainage by a catheter, even in those rare cases where it does not produce cystitis, is responsible for continuous pains, which in an unguarded moment are apt to induce the patient to take the most desperate steps, so that the result of all the most painstaking procedures is destroyed in an instant.

As the operation for hypospadias should in fact be performed only during childhood, because it is a criminal negligence to let a hypospadiac grow up to manhood without operating on him, it is natural that good control during after-treatment is one of the most difficult tasks of nursing. And, after all, in most cases, the catheter does not accomplish the purpose for which it is designed. Often the urine issues alongside of the instrument, drenches the wound, distends the wound margins, and, last but not least, encrusts and blocks its lumen.

A procedure, therefore, which would do away with all the obtrusive factors that I have named, has for years appeared to me to be an aim worthy to be pursued. The theoretical reflection that the extensibility of an organ which is able to change its volume to so extensive a degree during the stage of erection, could be utilized for surgical purposes, gave the first impetus to my experiments, which were also upheld in practice by my observations on plastic operations necessitated by severe urethral injuries.

This mobility extends over the whole movable portion of the penis, that is, from the orifice to the prepubic curvature, and is entirely absent in the perineal and pelvic sphere. The length of the pars mobilis in adults amounts to from eight to nine centimetres in the relaxed, and from fifteen to sixteen centimetres in the erected condition. In children of five years of age, 5.5 centimetres may be assumed as an average. The calibre of the urethra in adults may be estimated at 6 millimetres in moderate distention, and at 10.5 millimetres in forced dilatation. Even in children of one year of age, the urethra may be dilated so far that a common cystoscope can be introduced.

It is only in the external orifice that the calibre of the urethra becomes somewhat narrower on account of the surrounding fibro-elastic ring, while in the fossa navicularis, which is situated half a centimetre behind, it becomes so much wider again. The calibre of the canal of the pars cavernosa remains equal throughout.

The enormous abundance of elastic fibres that characterizes the mucous membrane of the urethra alongside its cavernous portion, may also be regarded as the expression of its enormous extensibility. If the difference of length between the erected and the relaxed penis can be regarded as fairly proportional to the degree of the extensibility of the urethra, it can be understood what a surprisingly long area may be covered with the mobilized urethra. In case of necessity, the extensibility can still be increased by dividing the ligamentum suspensorium et fundiforme penis.

Of this extensibility, heretofore neither theoretically appreciated nor, much less, utilized, I practically availed myself for the first time on May 17, 1897, in the case of a man, married for ten years, on whom I had tried Thiersch's procedure without success.

In other words: *Instead of forming a new urethra, I utilized the existing one, dissecting it free and dislocating it forward so that a new canal did not need to be created, the existing urethra performing its function.* In carrying out this principle, drenching with urine is out of question, the urine not coming into contact with the wound itself, as the internal surface of the urethra remains intact. So the use of a catheter can be discarded. (See *Verhandlungen der New Yorker Deutschen Medicinischen Gesellschaft,* October 4, 1897, *New Yorker medicinische Monatsschrift,* November, 1897, and *New York Medical Journal,* January 29, 1898.)

The extent to which I was able to draw the mobilized urethra forward surpassed my expectations. The *modus operandi* proved to be simple and the result was entirely satisfactory.

The details of the technique of the operation are as follows:

Chloroform is preferable as the anæsthetic. After the most minute aseptic precautions have been taken, an incision is made from the centre of the abnormal urethral opening, through the skin, to the posterior third of the pendulous portion. At the upper end of this incision, a second one, running nearly transversely through the integument, is added, while the glans is stretched up-

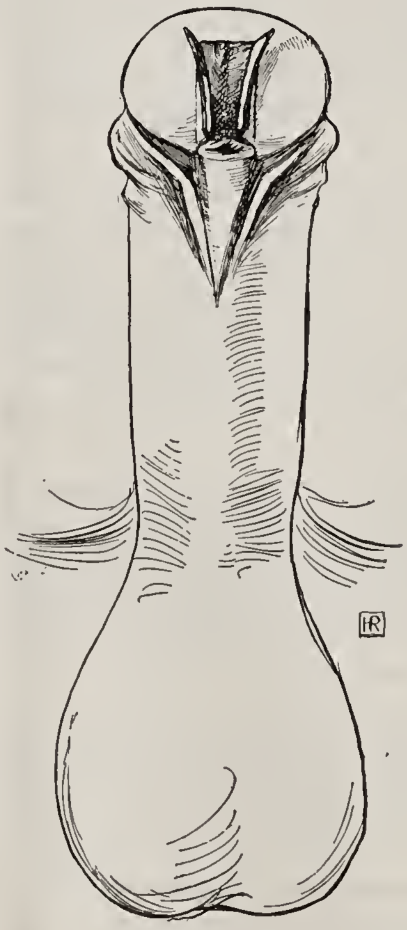
FIG. 1.

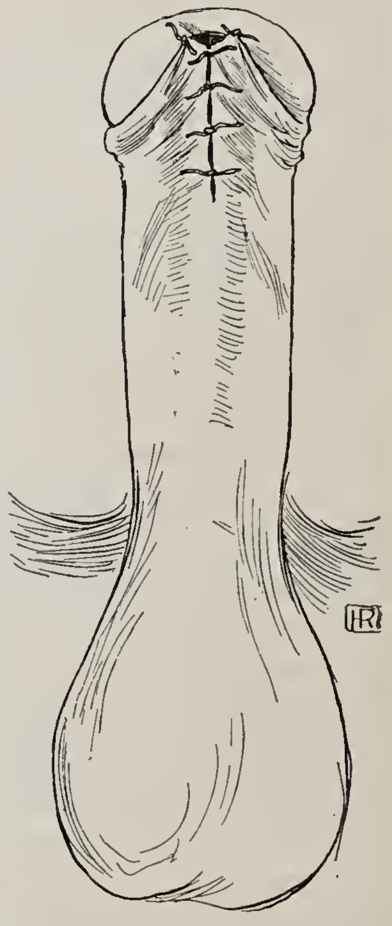
FIG. 2.

ward. This incision encircles the lower third of the neck of the penis immediately below the coronary sulcus (Fig. 1). The skin-flaps so obtained are dissected back to expose the lower third of the penis. While the wound margins are firmly retracted downward, the urethra, together with its corpus cavernosum with which it is intimately connected, is dissected in its whole length, from its bed between the corpora cavernosa penis. In regard to the question of hæmorrhage, it may be remembered that the pars cavernosa receives its arterial supply from the urethral artery and that there is no communication between its meshwork and that of the corpus cavernosum urethræ except at the glans. In proceeding carefully step by step, however, hæmorrhage, even there, is not excessive.

The whole operation can be performed without any loss of blood if the method of constriction is used. I would, however, not advise the use of this otherwise invaluable method as a rule, since it may produce disturbances of circulation, which are apt to interfere with the agglutination of the wound-margins.

After having exposed the urethra freely, so that it can easily be drawn to the top of the glans, the latter is tunneled by creating two flaps, which are formed by making a lateral incision along each side of the groove (Fig. 2). Generally there is an abundance of flap tissue, so that a portion of the internal margins of these flaps can be cut off. They must be raised so far that the dislocated urethra can be placed in the wound-bed created by this procedure. The orifice is now fastened at the top of the glans with four iodoform silk sutures of moderate strength. The flaps formed from the glans are now united above. By also uniting the small cross-section of the skin above in the longitudinal direction, the cosmetic result may still further be improved (Fig. 2).

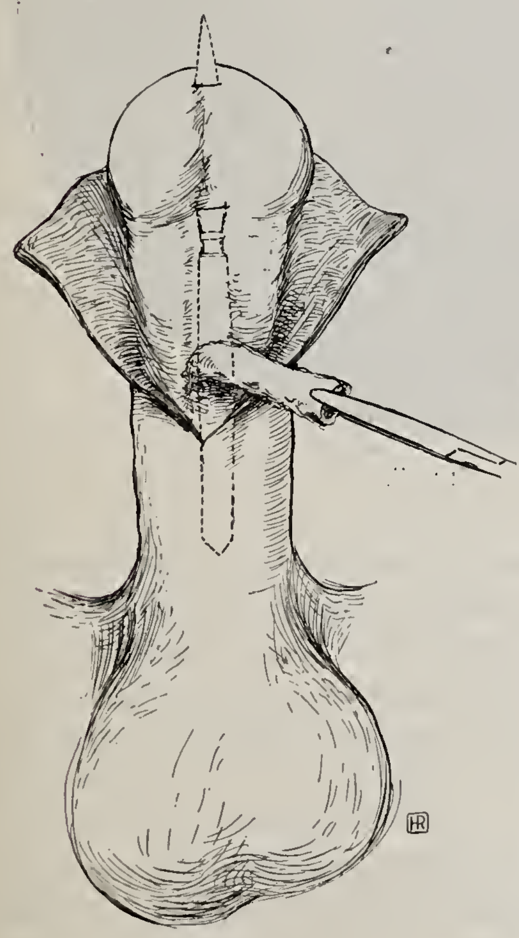

Fig. 3.

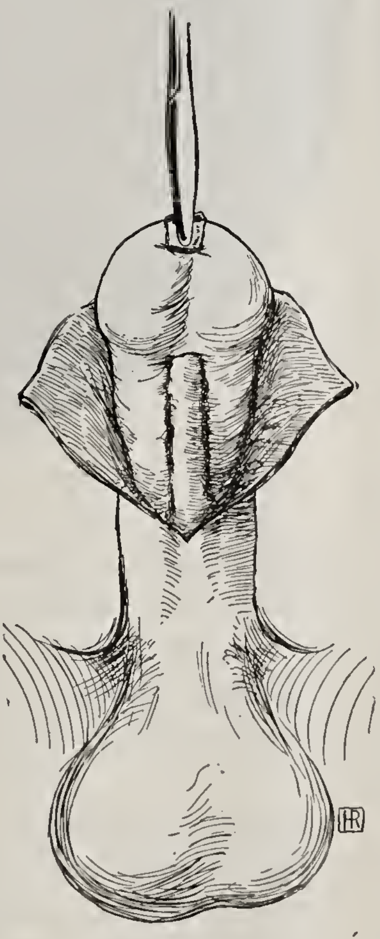

Fig. 4.

This mode of attaching the urethral opening to the new meatus, which requires considerable thoroughness, I would recommend as the general way of procedure. The tunneling of the glans can be done in a simpler manner by perforating it with a narrow bistoury. The cosmetic result of this shorter, but more brutal procedure, is not so perfect, however. It is only in cases where merely a shallow groove, or none at all, is present, or whenever through preceding operative efforts the lower glandular portion is infiltrated by much cicatricial tissue, that I have selected this mode of tunneling the glans *in toto* by thrusting a narrow straight bistoury through it from below upward, and well behind the sulcus which would normally have been the fossa. A new meatus is thus created about a quarter of an inch behind the topmost angle of the sulcus. The point of emergence of the bistoury is enlarged by turning it to the right and the left, making an incision at each side (Fig. 3). After the knife is withdrawn, a long narrow forceps is passed from above through the channel, and the urethra grasped (Fig. 4). Now the free end of the urethra is drawn through the channel, perforating the glans, and its opening attached by means of four iodoform silk sutures to the new meatus. This is done in the same way as before described. The flaps below the glans are also united in the same manner (Fig. 5). When choosing this mode of attachment, it is advisable to support the urethra by two catgut sutures, uniting its wall inwardly to the sulcus of the new canal.

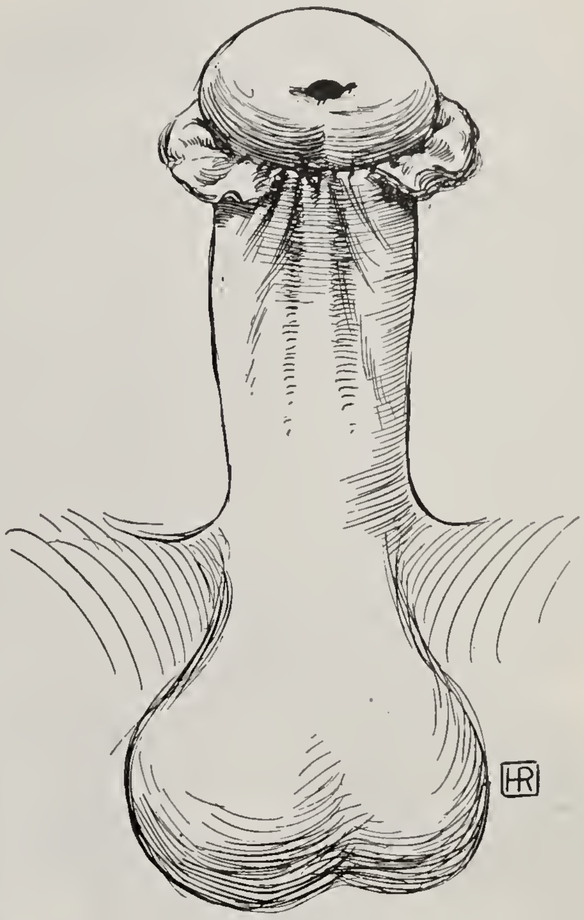

Fig. 5.

Whenever, after unsuccessful plastic efforts, the shape of the glans has become disfigured, as in the case illustrated by Fig. 6, tunneling by flap-formation as described above is to be preferred (Fig. 7).

At first I was inclined to confine my method to balanic hypospadias, for the reason that I was afraid of incurvation of the penis, especially in adults during erection. But practice soon taught me that the extraordinary extensibility of the urethra can also be utilized in penile hypospadias, especially in children. I venture even to maintain that the younger the child is, in other words, the further off the period of erection is, the greater the dimension that can be attained, because, in the course of time, the urethra becomes more and more distended and adapts itself to the new position. The only weak point in the infantile operation is the greater delicacy of the tissues, which might be responsible for an injury of the urethra by a careless operator.

A very strong and wide rubber catheter served as a guide during the dissection of the urethra. It is introduced into the urethra, from which it emerges so far that it can be utilized as a handle and as a landmark at the same time. A dilator which can be screwed up, may also be used advantageously for that purpose.

The after-treatment is very simple. The penis is surrounded by an iodoform gauze dressing so far that a free space for the new orifice is left. This region is then covered with compresses saturated with Burow's solution, which are frequently changed. In children the compress is fastened by a bandage.

The youngest child in whom I have carried out my method so far, was only five months of age. In this case the hypospadias was of the balanic type and of small extent. There was no reaction and the result is now, twenty-four days after operation, perfect. (This case was presented to the Medical Association of Greater New York.)

In a boy, two and a half years of age, who suffered from penile hypospadias, I recently succeeded in dissecting the urethra as far as the pars praetrigonalis, without observing any reaction. The new orifice in the middle of the glans functionated perfectly. The fact, however, that the penis appeared somewhat shortened, put a damper on our enthusiasm. Therefore I resorted to a plastic correction by perforating the very long prepuce with a bistoury and dilating it by lateral excursions, so that the glans could be pulled through the preputial gap. Then the skin above the newly formed urethra was dissected backward toward the scrotum so that a gaping wound-surface was formed, into which the preputial flap was inserted. Thus the flap appeared like a keystone between the lower margin of the glans and the retracted scrotal skin. After union had taken place the penis appeared not inconsiderably elongated. (This case was presented to the Medical Association of Greater New York.)

After the union has become perfect no further after-treatment is necessary in children. Adults, also, do not need after-treatment, provided there is only balanic hypospadias. But after an operation for the penile type has been performed, slight incurvation of the penis during erection is sometimes observed during the first few months after the operation; it is best treated by the introduction of large metal sounds, which have to remain for a while. If incurvation becomes considerable, longitudinal incisions, which are afterward united in the transverse direction, are made alongside the urethra into the penis.

The principle of forward-dislocation can also be utilized in many other pathological conditions of the urethra, and also in the female. So I had an opportunity in a

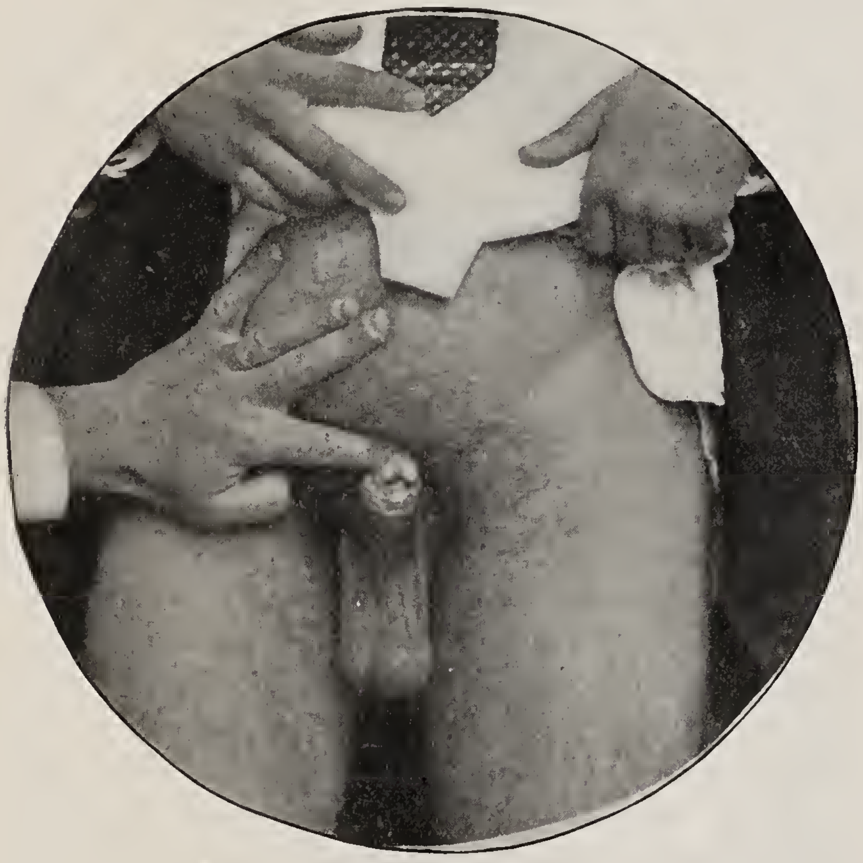

FIG. 6.

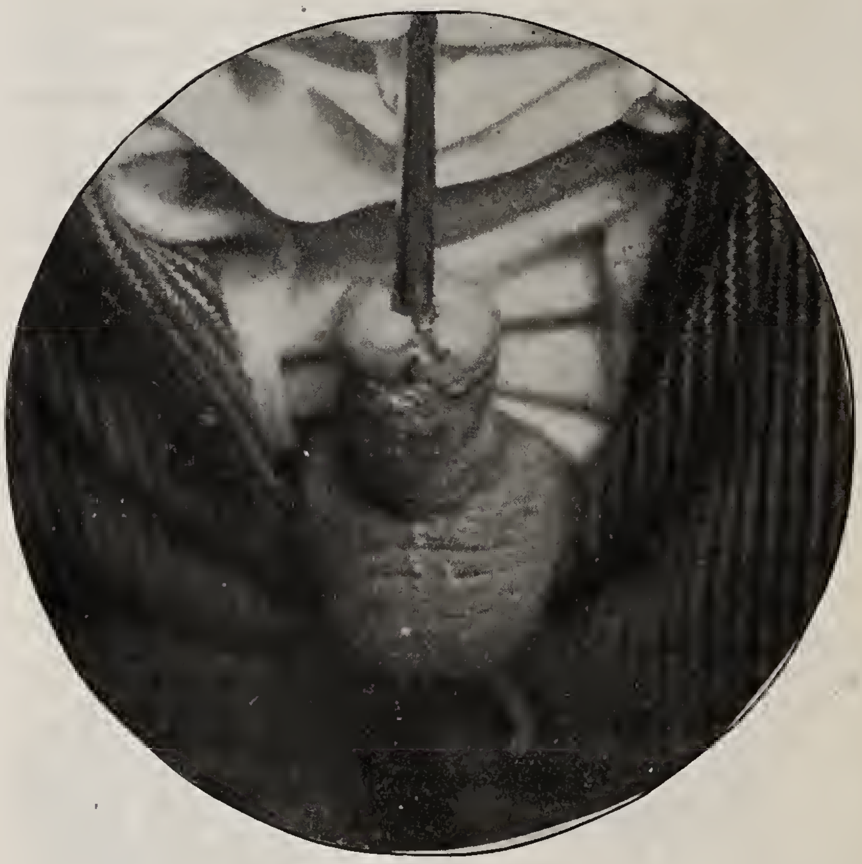

FIG. 7.

case of old urethrovaginal fistula, which had resisted previous attempts at closure, to resect the short anterior urethral fragment after having exposed it by a longitudinal incision. Then the posterior urethral portion was dissected free and pulled forward, so that it could be sewed to the remainder of the orifice. (See *New York Medical Journal,* August 5, 1899.)

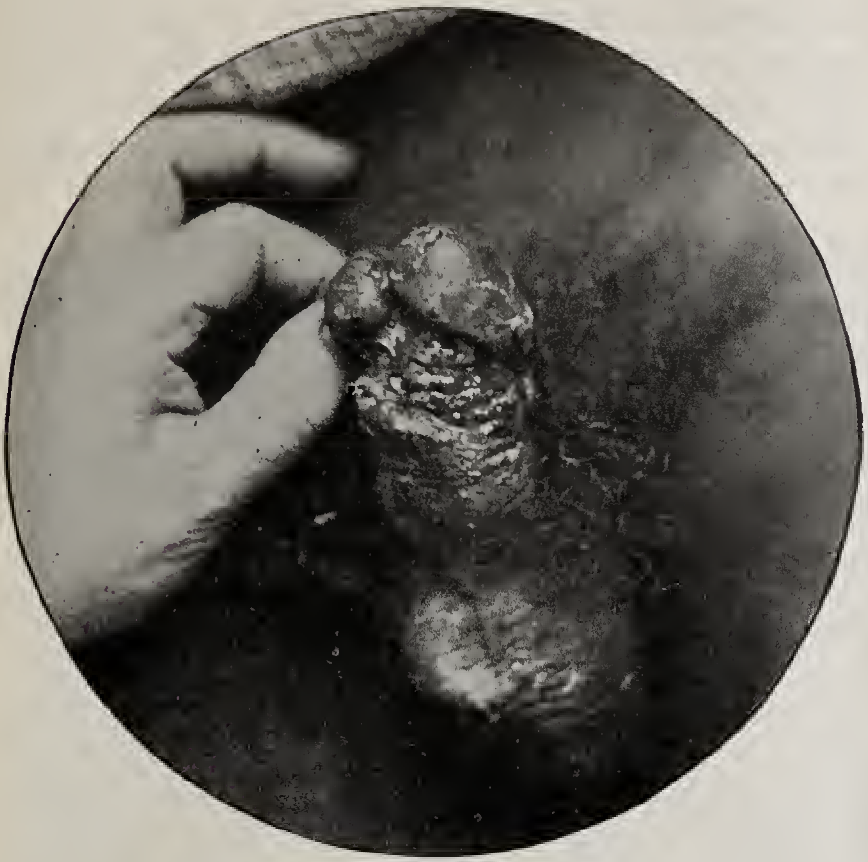
FIG. 8.

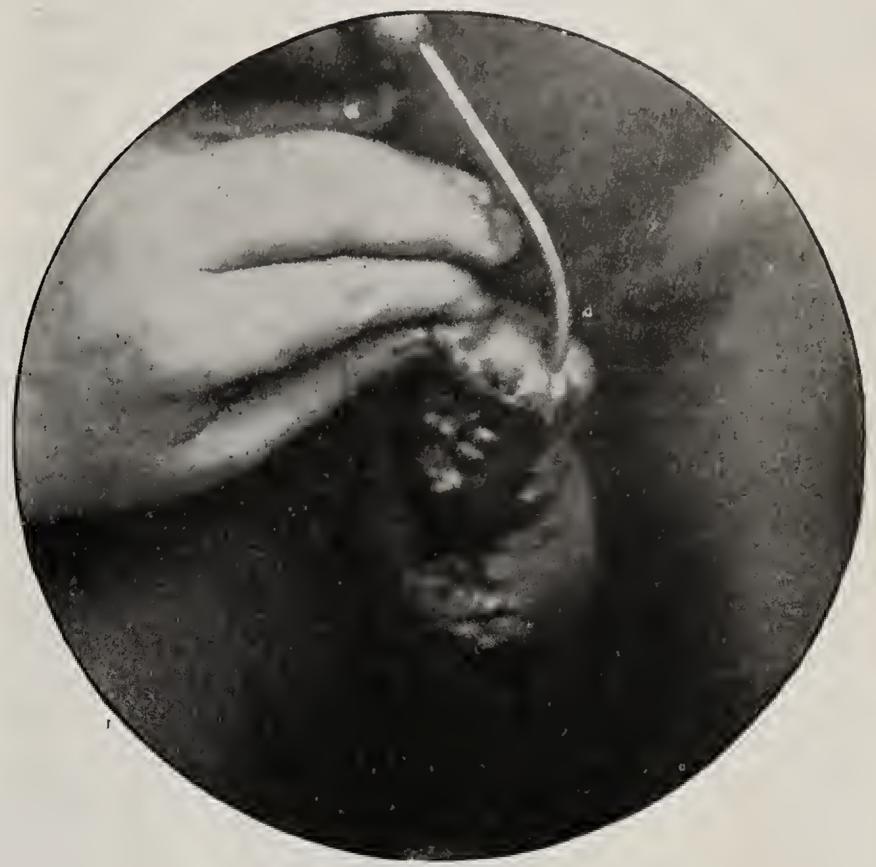
FIG. 9.

In all destructions of an ulcerative or traumatic nature, my method will also come into consideration. In a case of formidable destruction of the urethra by a phagedænic chancre (Fig. 8) the new principle stood its test well. In this instance, the glans was disfigured by ulceration in such a manner that two glandular halves had formed. The anterior third of the pendulous portion of the urethra was also totally destroyed (Fig. 8). The patient, a colored man twenty-four years of age, referred to me by Dr. L. Weber, arrived from Nassau (Bahamas), in a miserable condition. Retention of urine, cystitis, and extensive œdema of the penis as well as of the scrotum, required energetic local treatment during weeks before a plastic operation could be at all considered. In spite of all precautions the first attempt at dislocating the urethra proved to be a failure, which I ascribe to the immense tension caused by the efforts in protecting the large deficiency left by the ulceration. Lateral flaps had been taken freely from the integument of the penis for the purpose.

By far the greater portion of the deficiency, however, being covered by this attempt, the second effort was made easy, the urethra remaining attached at its new orifice. Lastly, the integumental gap remaining below the glans was covered by a quadrilateral flap taken from the scrotum. So the final result can be called a very good one, the patient passing his urine in a normal stream, and also not showing any abnormities during erection (Fig. 9). (This case was presented to the Medical Association of Greater New York.)

In extensive urethral destructions, especially in necrosis, the injured portion of the urethra may be sacrificed and restored by a portion of dislocated urethra.

In amputation of the penis, so often indicated in carcinoma, forward dislocation can also be tried, the mobilized urethral portion being then pulled through the scrotum, so that the urine can be passed in a stream.

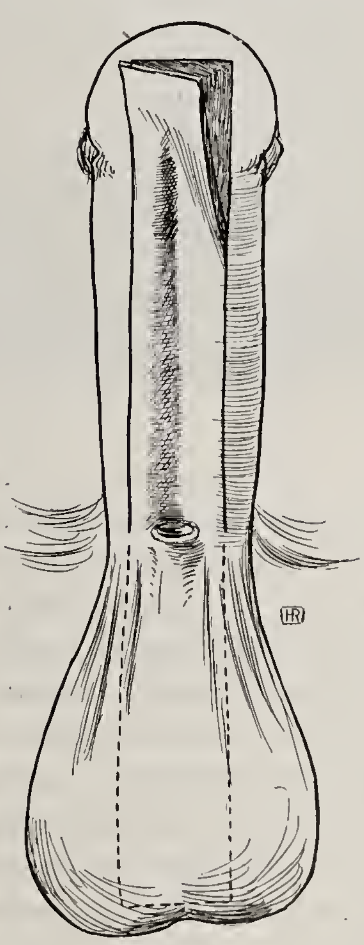
FIG. 10.

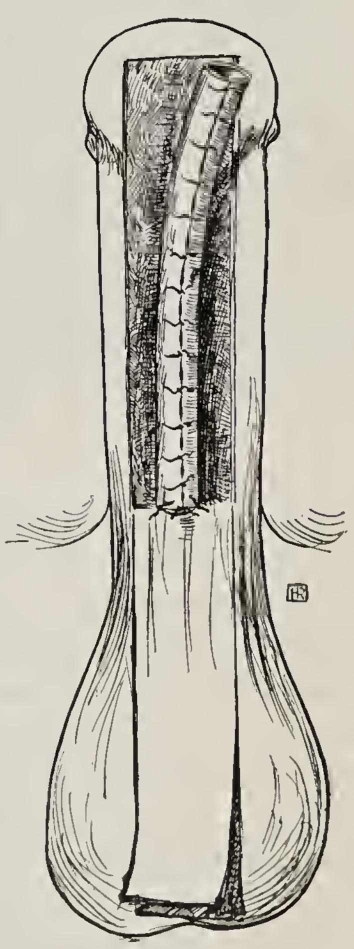
FIG. 11.

In perineal hypospadias, which fortunately is of very rare occurrence, the mobilization of the urethra cannot, of course, be resorted to. In a case of this kind, in a boy of five years of age, I succeeded in creating a new urethra by making a deep incision at each side of the penis parallel to the groove which extended from the glans to the region of the perineal opening.

Beginning again from the tip of the glans, the whole lower surface of the penis, as outlined by the sideward incisions indicated by Fig. 10, was transformed in a thick longitudinal flap by shelling it out from the penis. The base of this flap was formed by the perineal region. At its place of attachment, this flap, in view of sufficient nutrition, was made specially voluminous. Then it was folded together over a hard rubber catheter so that it assumed the shape of a tube, the inner part of which consisted of the mucous membrane of the groove, which had been carefully preserved. Union was accomplished by a large series of very fine silk sutures (Fig. 11). To cover the very large deficiency formed by the excision of the new urethra, a tongue-shaped flap was dissected from the scrotum (Fig. 12), which was turned upward, so that it could be fastened above the new urethral canal. The observation of this case is not sufficiently advanced to justify a final judgment on the question whether the small amount of mucous membrane utilized in the formation of the tube will prevent the formation of strictures. At all events, the new urethra lacks an important ingredient—its corpus cavernosum, which is of such great advantage in my method of forward dislocation. This procedure can also be utilized for epispadias.

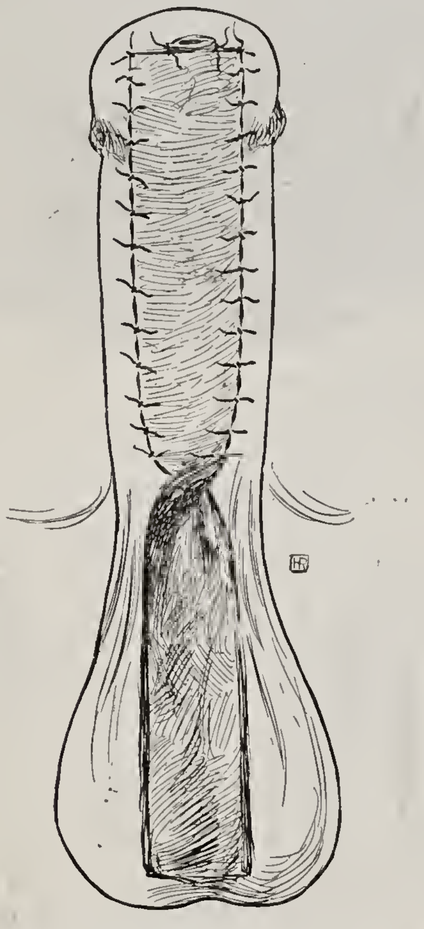

FIG. 12.

How apparent the advantages of my method of forward dislocation are, is best illustrated by the many more or less useful modifications which have been proposed during the short space of three years and a half since its invention.

THE PRESENT STATUS OF THE TREATMENT OF PROSTATIC HYPERTROPHY IN THE UNITED STATES.*

By RAMON GUITÉRAS, M. D.,

NEW YORK.

THERE are two methods of treating prostatic hypertrophy, the conservative and the radical. The conservative method consists principally in treating the symptoms and trying to prevent the advance of the disease. The radical is an operative one calculated either to remove the prostatic impediment or the entire gland.

Conservative Method.—The principal symptoms are frequency of urination, burning on micturition, pain in the perinæum and suprapubic region, a feeling of weight or dragging in the perinæum, retention of urine, and incontinence. These symptoms are due generally to a congestion about the neck of the bladder, caused by the interference with the return flow of blood through the prostatic plexus, on account of pressure of the enlarging gland, or to a cystitis that has developed, which means an inflammation of the bladder wall, or, in other words, a congestion to which infection has been added. The pain is due to pressure on the sensory-nerve terminals by the growth or the infiltration accompanying an inflammatory process, to the weight of a quantity of residual urine on a congested or inflamed area, or to the contact with acid urine. The dragging feeling, or weight, is one degree short of pain, and is usually caused by the pressure of residual urine or is due to an over-distended bladder. The retention of urine is incomplete or complete. In the incomplete form there is a certain amount of residual urine which always remains after micturition. The complete form is either an acute attack, when a congestion or œdema of the enlarged prostate increases its size to such a degree that the flow of urine is shut off by mechanical interference, alone or combined with spasm, or it is chronic, when the residuum increases to such an amount that a catheter has to be passed regularly to empty the bladder. Incontinence is due either to weakened sphincters, allowing of a dribbling, or to complete retention with an overflow; for a bladder which, when catheterized at stated intervals, will rid itself of a certain amount of urine each time with no leaking during the intervals, will usually overflow if it is allowed to dilate much above this point (overflow incontinence).

In treating these symptoms, an alkaline, such as one of the potassium salts, should be given for the burning, if the urine is acid and there is no cystitis, or benzoate of sodium if the urine is acid and the bladder is inflamed. If the urine is alkaline, and a cystitis is present, then benzoic acid, or preferably urotropin, should be given. The frequency of urination can be met by belladonna or hyoscyamus, given at regular intervals, which tend to stop the tenesmus. These two drugs, given alone or in combination with morphine or codeine, also quiet pain.

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*Read before the International Medical Congress in Paris, August 4, 1900.

For the spasm occurring at night in these cases nothing equals a suppository of morphine and belladonna. It is well for prostatics to drink plenty of water, and thus keep the urine well diluted. The sense of weight and the dragging feeling in the perinæum and hypogastric region are usually due to residual urine, and should be treated by the use of the catheter. Many men go about who cannot empty their bladders, without having the least suspicion that such is the case until an examination is made by a physician. The frequency with which the catheter is passed depends upon the amount of residual urine and the degree of desire to urinate that the patient has. We may approximately say:

2 to 4 ounces, once a day.
4 to 8 ounces, twice a day.
8 to 12 ounces, three times a day.
12 to 16 ounces, four times a day.
16 or more. The frequency depends on the amount of urine secreted; usually it is five times.

The desire also governs the patient, for it is sometimes so uncontrollable as to cause him to want to catheterize himself every five minutes, and only a short interval can be passed without resorting to the catheter. The catheters to be used in these cases are of the elbowed class, known as the Mercier, of the soft-rubber variety with "velvet" eyes. In some cases, however, these are too pliable, and the ends bend over when they strike the prostate, in which case a woven catheter, sometimes spoken of as the "gum elastic," may be made to enter more easily. It will be found, as a rule, however, that the soft catheters are preferable, as they do not bruise the tissues, an accident to be avoided if possible, as it always predisposes to infection. If cystitis is present, the bladder should be washed out occasionally through the catheter by means of a piston or fountain syringe. The solutions used for this purpose are of boric acid or boroglyceride, half an ounce to a pint of water, for frequent washings, and silver nitrate, 1 to 3,000 or 1 to 2,000, every day or two.

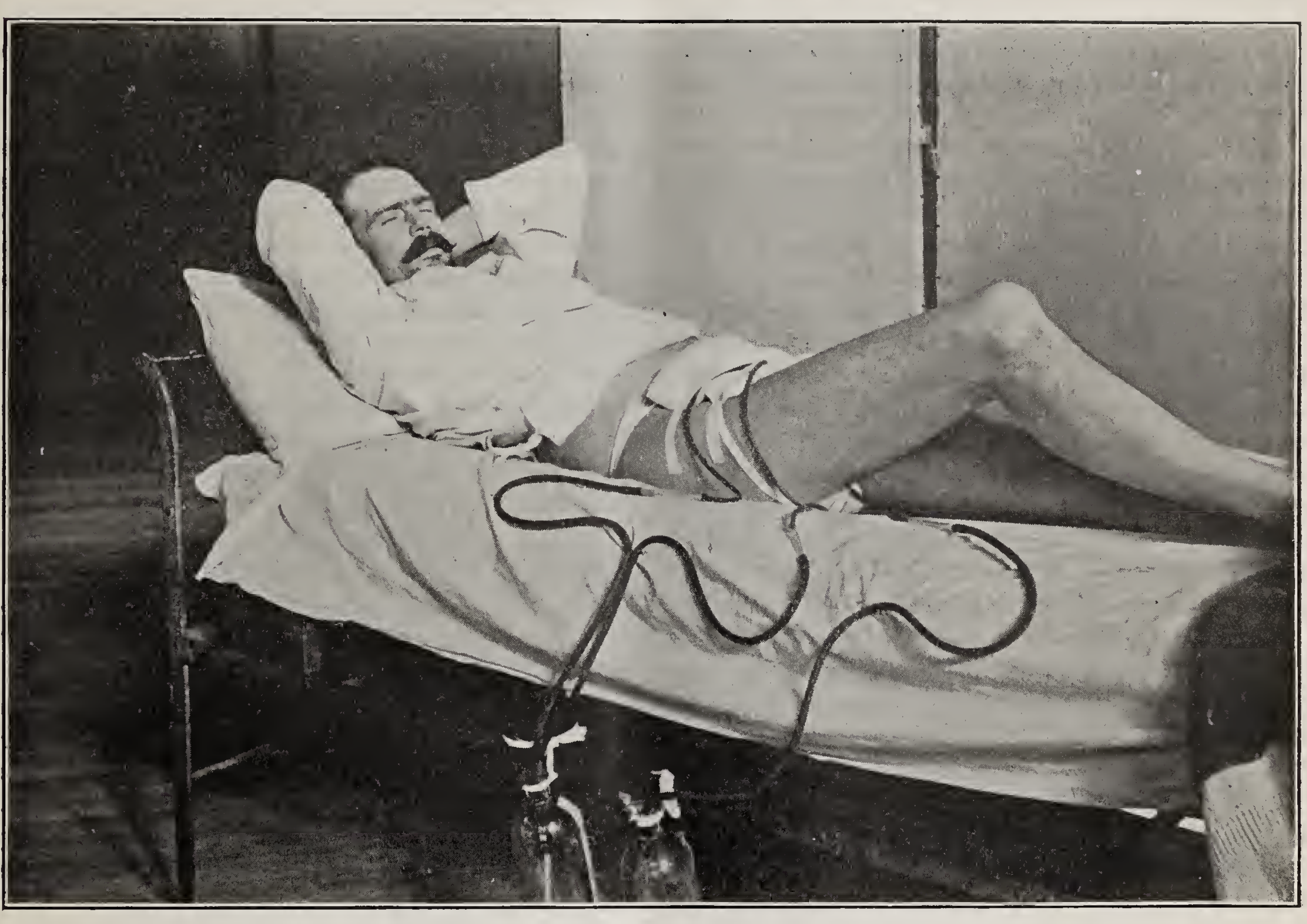

Fig. 1.—Showing method of syphon drainage into bottles from suprapubic and perineal openings.

The care of the catheter is very important. If it is of the soft-rubber variety, the patient should boil a number of them every morning, wrap them in a sterilized towel, and carry them in his pocket. When he needs to use one he should unfold his towel sufficiently to take one out, and, having made use of it, he should put it into another pocket until he can return home, when those which he has used should be reboiled. In case it is a woven catheter, it should be sterilized by formaldehyde in a formalin sterilizer, and then carried about as already described. As these are the only two varieties which prostatics should use, the sterilization is at present most simple and effective. The best lubricant to use is glycerin or lubrichondrin.

Attacks of retention should be treated by first attempting to pass a catheter. If unsuccessful, give the patient a quarter of a grain of morphine hypodermically and a hot sitz-bath. He may pass urine in the bath, but, if he does not on coming out, another attempt should be made to catheterize him. If this is not successful hot applications should be made to his pubes and perinæum, and after a short rest in a reclining posture he should be told to try to urinate, and if he cannot another attempt should be made to pass the catheter. If, after a few hours of treatment in that way, he cannot pass urine, and the surgeon cannot pass the catheter, suprapubic aspiration should be performed, and a pint of urine withdrawn. This can be repeated at intervals of a few hours if necessary.

As these acute attacks of retention are simply due to congestion of the prostate, with spasm dependent upon cold, exposure, overexertion, or errors of diet, it will quickly subside, and either the patient will be able to urinate spontaneously, or a catheter can be passed. A patient, if he takes care of himself, is careful in clothing himself and in exercising, avoids excesses and exposure, will usually be able to live in comparative ease for many years. In some cases, however, radical treatment is indicated, namely, when there is an increasing amount of residual urine, a troublesome cystitis, or retention, and at times when the tenesmus and irritability are so great that catheterism and bladder irrigation afford no relief, or when catheterism is followed by bleeding, prolonged attacks of urethral fever, or epididymitis.

Operative Method.—The various operative methods then have to be considered. Those that have been used are ligation of the internal iliacs, castration, vasectomy, the Bottini operation, and prostatectomy. Of these, the ligation of the internal iliacs was long ago abandoned, and is now never thought of excepting in the history of the treatment of such cases.

Castration, an operation devised by one of our most eminent surgeons, was discarded some years ago, as it was found that the mortality was over twenty per cent., and that of those living some became maniacal, some melancholic, while many others became neurasthenic or otherwise lost their mental equilibrium.

Vasectomy has also been an operation of little popularity with us, and, although a few perform it at the present day, the vast majority of surgeons do not, the only argument in its favor being that it is not considered dangerous, which is not the case, however, as numbers of deaths have been reported as resulting from it.

We then come to the two operations most in vogue, namely, prostatectomy and the Bottini operation, as formulated by our distinguished colleague, Dr. Freudenberg, of Berlin. The advocates of each of these methods argue strongly in its favor, and the followers of one procedure are wont to condemn the other operation. The supporters of prostatectomy contend that the Bottini operation is a blind one, and that the surgeon cannot see what he is doing, while the advocates of the Bottini operation say that enucleation is extremely dangerous, both at the time and afterward. Both are right, but luckily most of us do not confine ourselves to one operation, and are willing to try the procedure which is indicated in the individual case.

The Bottini operation is a blind one, but so is litholapaxy. In the first instance we determine the size of the prostate, and the limit of the cut, by the rectal touch, for we can not only outline it in this way, but we may pass an instrument into the bladder through the urethra, and feel the tip in the bladder caught behind the base of the gland through the rectal wall, and so determine its size and position exactly, while in litholapaxy we must generally rely upon touching the calculus with the instrument itself, and can rarely judge of its size by the digital touch. Prostatectomy is a bloody and dangerous operation, it is true, and it, also, is blind, for we can see but little while we are at work, as in both the suprapubic and perineal operations the hand is so large that the work of the enucleating finger is hidden, and it is practically the touch alone that guides the surgeon in his work.

What are, then, the indications that would help us in deciding which operation to perform? They are as follows:

1. The age of the patient.
2. The size and shape of his prostate.
3. The condition of his kidneys and bladder.

Age is important, as the older the patient the lower is his resisting power, and the more liable he is to death from shock or asthenia; therefore, in a very old man, if the prostate is of the right variety, a Bottini operation should be performed, and cases of men over ninety years of age have been reported as having been operated upon by this method successfully. Old age, however, is not a contraindication to prostatectomy, as men over seventy years of age often have good kidneys, non-infected urine, and a prostate that clearly indicates enucleation.

What, then, is the variety of prostate, depending on its size and shape, which indicates the one operation or the other? We may say that the very large prostates, such as have the feel of an apple or orange on rectal examination, are favorable for enucleation, while the smaller ones, that is to say, those in which there is not much enlargement on rectal touch, but in which there is a distinct impediment in the prostatic urethra on introducing instruments, together with a considerable quantity of residual urine, are the best for the Bottini.

One might ask if we can tell exactly how large a prostate is, as it often may not seem to be particularly large by the rectum, whereas the middle lobe projects to a marked degree into the bladder. In answer to such a question, I would say that one can never say exactly what the size of the prostate is, but the experienced rectal touch tells us a great deal, and when added to this we have the feeling of the impediment in the posterior urethra, as imparted to the sound, and are able to judge of an increased length of urethra by hooking the beak behind the middle lobe, and also noting the amount of residual urine present, we can form a fair idea of the prostate that we are dealing with. Besides this, the cystoscope teaches us something of the contour of the base of the gland. There is no question but that there is a difference in the distance of the rectal and vesical base of the prostate, and often the beak of the sound caught behind the middle lobe in the bladder can be felt through the rectum as considerably further back than the base of the gland seems to be on rectal examination alone.

Rectal examination is most important, and yet how few practitioners have sufficient experience to outline a prostate correctly! This is brought to light in teaching and consulting. Strictures are frequently mistaken for enlarged prostate, and *vice versa*. On one occasion a surgeon sent a patient to me for a prostatic operation when absolutely no gland could be felt in the rectum, the condition being due to impermeable stricture. The importance of a physician's making a rectal examination in every genito-urinary case that comes under his care, as a matter of routine, in order to perfect himself in this important means of diagnosis, cannot be too highly emphasized. Whenever the prostate is much enlarged and has the characteristic fibromyomatous feel, enucleation should be performed if the patient is not too old, and the bladder and kidneys are in good condition.

Next comes the question of the condition of the bladder and kidneys. Of these, the bladder is least important, because it makes no difference how badly inflamed it may be, treatment will do much to benefit it by means of internal urinary antiseptics, and locally by irrigations through a catheter. An involved bladder does not count so much against an operation as kidney involvement does.

Bad kidneys, whether medically or surgically diseased, are always contraindications to surgical interference on the prostate, as in such cases any operation in the urinary tract is liable to be followed by a renal congestion, uræmia, and death. If, therefore, the kidneys are damaged in either a medical or a surgical way, and an operation is demanded, a Bottini should be the one of choice. It must not be thought, however, that this operation is wholly without danger, as there often sets in after the operation a reaction which is most alarming.

The indications, then, for the two operations may be summed up briefly as follows: For a prostatectomy, a prostate of large size as felt per rectum, the larger the better, in a patient with healthy kidneys and urine.

A Bottini may, however, be performed in almost any case in which the instrument can enter the bladder, and may be of benefit even in marked cases of hypertrophy when an enucleation is clearly indicated, while in many of the cases of small sclerosed prostates with a middle-lobe impediment an enucleation could not possibly be accomplished. The method of performing the Bottini operation now in vogue is the one devised by Friedenberg, which is briefly as follows:

The Technics of the Bottini Operation.—The patient should lie on his back on the table. He can be operated on either with local anæsthesia by cocaine or eucaine or with general anæsthesia, by ether, chloroform, or nitrous oxide. Personally, I prefer general anæsthesia by nitrous-oxide gas. On the patient's left a fountain syringe should be hung, which contains the water for cooling the instrument, and on a stool near the patient's waist the battery should be placed. A soft-rubber catheter lubricated with glycerin is passed into the bladder, the urine is drawn off, and the bladder is washed out and emptied, after which, before the catheter is withdrawn, if the operation is performed under a local anæsthetic, a urethral hand syringeful of a four-per-cent. solution of eucaine is injected into the posterior urethra and bladder, and as the catheter is being removed a syringeful should be thrown into the urethra. From this moment the work should be done quickly and accurately, and I have observed that the more quickly the operation is performed after the injection of the anæsthetic into the bladder, in cases of local anæsthesia, the less painful is it to the patient.

If cystoscopy is performed, the time required for it will usually be sufficient to allow the effect of the anæsthetic to pass off before the actual operation is begun, and for this reason I think it advisable either to use the cystoscope at an earlier date, or to again inject a local anæsthetic after the cystoscopy. Again, cystoscopy is often more painful than the operation itself. It seems to me for this reason that it is advisable to omit the question of cystoscopy just before the operation, as advised by some, and consider it as having been performed previously when the patient was examined. Therefore, after the eucaine has been introduced into a clean and empty urethra and bladder, the catheter should be quickly pushed back again and six ounces of water injected into the viscus, the catheter being quickly withdrawn and the incisor introduced. If it catches in the deep urethra, the pelvis should be elevated, which will allow it to enter if the handle is depressed and a slight upward push is given to the instrument. If it still catches, the patient must be anæsthetized. In four cases under eucaine anæsthesia I have failed to pass the instrument. I afterward operated in three of these under nitrous-oxide-gas anæsthesia, and introduced the instrument without difficulty. The difficulty is generally due to a spasm of the vesical sphincter.

After the instrument is in the bladder, its beak is turned downward and then drawn forward until it catches against the base of the gland. The left forefinger is then introduced into the rectum to see if it is really in place. If it is, it should be held there, and the connection made with the battery, when a current of 45 ampères should be turned on. The wheel at the end of the instrument should be turned, thus drawing the knife through the gland from this point and burning a furrow in it. The current should then be shut off, the instrument turned to one side at right angles, and the current again opened, and an incision should be made through one of the lateral lobes, and then in a similar way through the other.

After the operation a catheter should be kept tied in for a few days, the patient should be given some urinary antiseptic and a milk diet, and should be instructed to drink large quantities of water daily. Ten grains of urotropin, given three times a day, is the best urinary antiseptic.

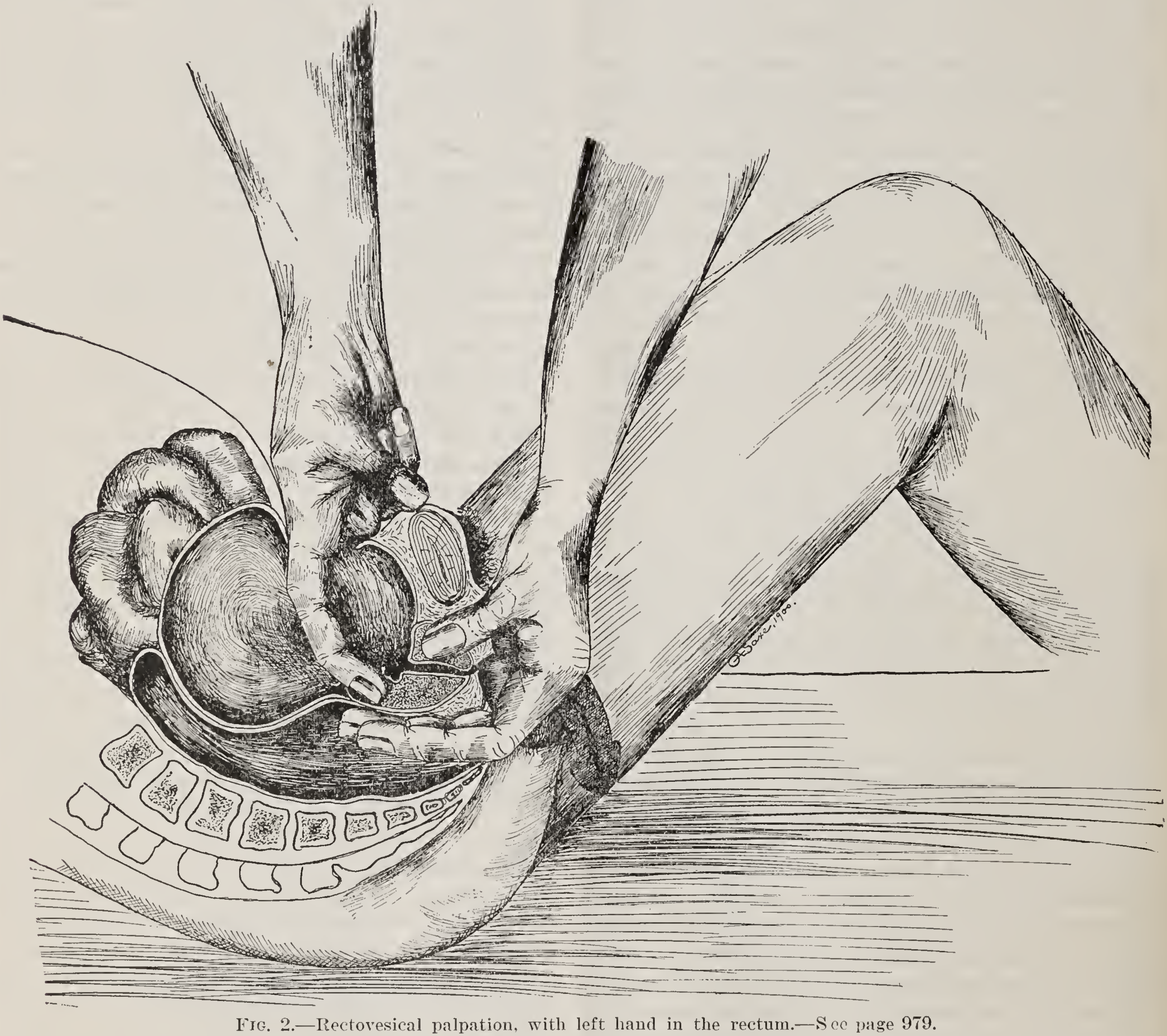

FIG. 2.—Rectovesical palpation, with left hand in the rectum.—See page 979.

The Technics of Prostatectomy.—For prostatectomy there are but two routes by which we can remove the gland, one the suprapubic, and the other the perineal. In either case, however, the bladder is generally opened both suprapubically and through the perineal urethra. The suprapubic incision enables the surgeon to see and to feel the tumor distinctly from the bladder, as well as by the rectum. If a large middle lobe is found, called by some an intravesical tumor, then the enucleation should be performed by the suprapubic method, but if we find that the enlargement is principally of the lateral lobes, it is perhaps better to remove it by the perineal route.

Among the perineal operations, Alexander's is much used. First, suprapubic cystotomy is performed, then a perineal incision is made on a urethral guide down to the apex of the prostate, after which the capsule of the gland is incised, the finger is inserted, and the process of enucleation begins, counter-pressure being made by the fingers of the other hand in the bladder. After the lateral lobes have been enucleated in this way, the middle lobe is pushed down and removed. Suprapubic and perineal drainage is established. As by this method the principal rôle played by the suprapubic cystotomy is that of allowing pressure to be made upon the prostate from above, a very ingenious device has been made by Dr. Syms to obviate the necessity of this, in which he makes use of a thick rubber tube with a soft-rubber balloon at the end. This can be inserted with the balloon collapsed through the perineal opening into the bladder, after which it is inflated with water. This is then gently pulled down by an assistant, thus drawing down the base of the gland and steadying it while the operator enucleates it through the perineal incision, the pressure being constantly kept up on the base of the prostate above by means of the assistant pulling down the balloon.

Another popular operation is that devised by Dr. Fuller, the steps of which are as follows: After suprapubic cystotomy, he cuts down through the tissues of the posterior wall of the neck of the bladder covering the gland with scissors, inserts the end of the finger into this incision, and digs out or enucleates the gland with the finger, while pressure is made upward against the perinæum by an assistant. In this way the bulk of the prostate can often be shelled out in three large pieces, while at other times it must be removed piecemeal. Enucleation cannot always be performed by this means, and frequently the operator has to be content with the removal of a piece forming the principal part of the barrier. A boutonnière operation is then performed and suprapubic and perineal drainage is established.

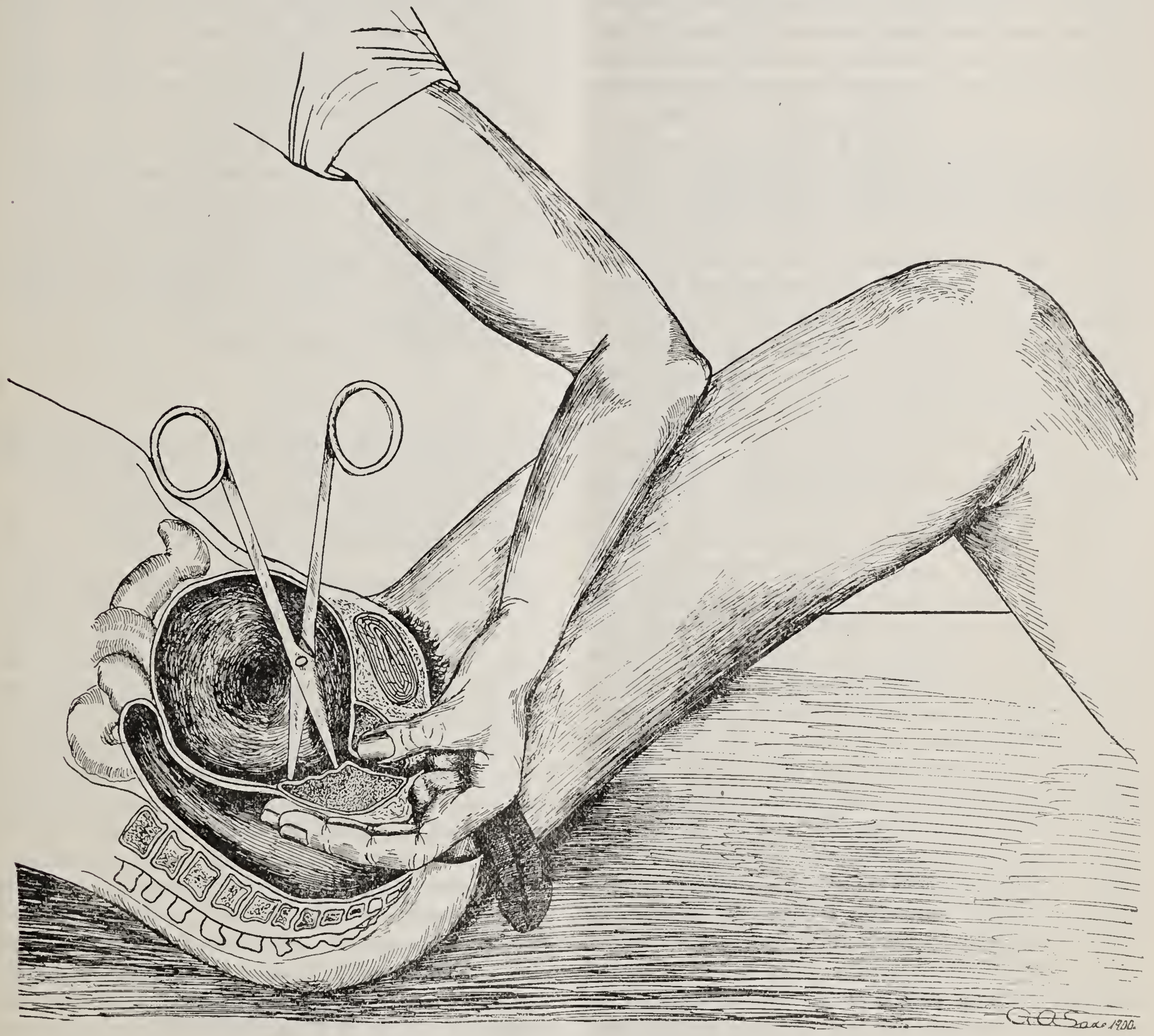

Fig. 3.—The correct position for the scissors.

Personally, I am in the habit of performing prostatectomy by what I call the rectovesical method, although no part of the operation proper is performed by the rectum, the fingers simply being inserted into it to exert direct counter-pressure and guide the operating finger, which is working through the bladder. It is very similar to the operation just described. The steps of the operation are, briefly, as follows: Suprapubic cystotomy is performed, after which retention sutures are passed through the bladder wall on each side of the incision. Careful rectovesical palpation is then made, two fingers of the left hand being in the rectum, while the right forefinger is in the bladder (Fig. 2), and a visual examination is made by means of an electric light inserted into the bladder. A pair of scissors are inserted into the bladder, the closed blades being pressed against its floor in the region of the neck in the median line, until the blades are felt depressing the prostate against the two fingers of the left hand in the rectum, which are in turn pressing upon the gland in the median line from below, showing exactly whether they are in the right position or not. The blades of the scissors are opened, and a cut is made through the bladder tissue covering the gland in a line corresponding to the space between the two fingers in the rectum (Fig. 3). The forefinger of the right hand is then inserted into this cut through the bladder, and gradually works its way between the capsule and the gland. The two fingers in the rectum feel the one in the bladder working its way between the capsule and the gland, and they start counterpressure while the enucleation is being performed. The finger-tip under the capsule first sweeps to one side, and pulls out one lateral lobe, then to the other side, and enucleates the other, and finally removes the middle lobe, or it first works its way backward under the base of the middle lobe, which is enucleated with a dissecting rotary movement, and then proceeds to enucleate the two lateral lobes. The gland having been removed, there is always free hæmorrhage, and very hot water should be injected for two or three minutes into the bladder suprapubically, during which time the surgeon again washes his hands. He then passes a grooved sound, preferably a lithotomy guide, through the urethra into the bladder, and, having brought the patient into the lithotomy posture, he rapidly cuts through the membranous urethra and pushes a large perineal drainage-tube into the bladder, which he fastens to one side of the perineal incision. The finishing steps of the operation are to put two catheters into the bladder suprapubically, with a gauze drain packed down beside them into the cavity made by the removal of the prostate, fasten them into the skin of the bladder wall, and then sew the bladder wall up to the drain. The surgeon then closes the abdominal wall, including fascia, muscle, and skin as far as the drain. The floor of the prostatic urethra should be cut through from above downward before the perineal tube is left permanently in place, to prevent the formation of a pocket which would retard the cure.

The After-treatment.—An enema of a pint of hot saline solution at a temperature of 120° F. to be retained, should then be given to the patient, together with a thirtieth of a grain of strychnine, and he should be put to bed with hot bottles at his feet. The shock in these cases is often great, and should be guarded against as much as possible. As soon as he comes out of the effects of the ether, a little hot water or bouillon should be given, and from this time on the hot water should be pushed *ad libitum*. If the patient vomits the water, give more in a few minutes, and continue to force it. It is wonderful how much water can be taken in these cases, some patients taking between one and two gallons in the first twelve hours. This has the effect of flushing the kidneys and producing free diuresis. Any water is good for the purpose, although I am in the habit of prescribing some mild diuretic spring water.

The strychnine in one-thirtieth-of-a-grain doses should be given every four hours hypodermically, and it is well to repeat the hot saline enema every four hours. In this way something can be done for the patient every hour if they are alternated, either strychnine, hot rectals, bouillon, or water, remembering that the water should be pushed to its maximum tolerance.

It is well, both before and after the operation, to give a urinary antiseptic, preferably urotropin, in ten-grain doses, three times a day. A diet of milk, from two to three quarts a day, is advisable. The bowels should be moved with some saline water, Apenta or Hunyadi, on the second day.

The suprapubic tubes can be removed at the end of a week, and the perineal one at the end of two or three weeks. The drainage in these cases is by the siphon method, into bottles hanging from the side of the bed, two pieces of tubing going from the suprapubic opening, and one from the perineal (Fig. 1).

In closing my remarks, I should like to say that I consider the operation of prostatectomy as still in its infancy, in the same position as hysterectomy was some years ago, but I have no doubt that it will some day be simplified, and it behooves all surgeons interested in this line of work to try to improve the methods and technics of the procedure.

75 WEST FIFTY-FIFTH STREET.

NOTES ON THE HOSPITAL SCARLET FEVER SERVICE IN NEW YORK CITY FROM 1893 TO 1899, INCLUSIVE.

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IN 1893 the bacteriological diagnosis of diphtheria reached a sufficiently practicable basis to render it possible to establish a service of cases suffering from both scarlet fever and diphtheria. This, of course, resulted in the elimination of many mixed cases from the scarlet fever service, and in a corresponding diminution in the death rate. From 1886* to 1892, inclusive, the death rate of what was called the scarlet fever service was 19 per cent. This service, as a matter of fact, was made up of the cases of scarlet fever augmented by the mixed cases of scarlet fever and diphtheria. The elimination of these mixed cases was undoubtedly one of the principal factors in reducing the death rate subsequent to 1892 to 9 per cent. I give it this importance because, in the first place, the number of these mixed cases was large, and, further, the mortality among them was very high, reaching well up toward 50 per cent. The lesion of this post-scarlatinal diphtheria—for this is essentially a late complication, from the third to the fourth week—shows, in many cases, a marked preference for the larynx, where it almost invariably develops a hopeless croup.

During the seven years beginning with 1893, about twenty-five hundred cases of scarlet fever were admitted to the Willard Parker and Riverside hospitals, as shown by Table A. It will be noticed that, so far as hospital cases go, the minimum liability to scarlet fever occurs during July, August and September.

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*Date of first available hospital records.

TABLE A.

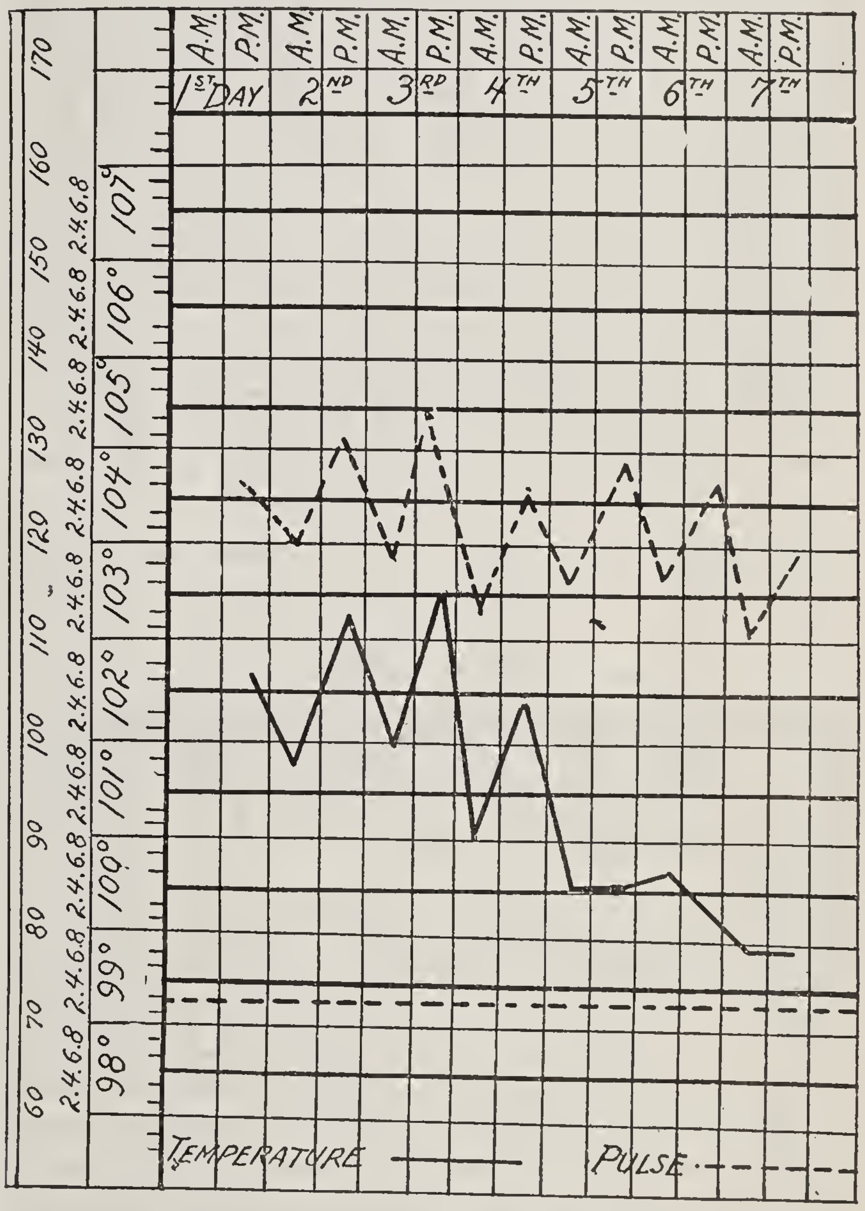
Quarter 1893.	*No. of Cases.*	*Mortality* *No. of Deaths.*	*Mortality* *Per Cent.*	*Quarter 1897.*	*No. of Cases.*	*Mortality* *No. of Deaths.*	*Mortality* *Per Cent.*
First. . . .	106	14	13	First. . . .	175	9	5
Second. .	106	11	10	Second. .	72	5	6
Third. . .	26	2	7	Third. . .	47	3	6
Fourth. .	120	12	10	Fourth. .	107	3	2
1894.				*1898.*			
First. . . .	136	10	7	First. . . .	106	8	7
Second. ..	132	11	8	Second. .	108	12	11
Third. . .	48	1	2	Third. . ..	74	6	8
Fourth. .	84	8	9	Fourth. .	98	8	8
1895.				*1899.*			
First. . . .	100	19	19	First.	113	12	10
Second . .	66	7	10	Second. .	144	19	13
Third. . .	27	6	22	Third. . .	69	4	5
Fourth . .	87	8	9	Fourth. .	61	7	11
1896.							
First. . . .	157	16	10	Total .	2,627	247	
Second. ..	88	9	10				
Third. . ..	44	4	9				
Fourth. .	126	13	10	Mortality per cent, 9.			

About one hundred cases out of this number were stricken with scarlet fever in or about the hospital; nurses, other attendants, and patients sent in while incubating. The onset of the period of invasion, in the large majority of these cases, was marked by vomiting. This vomiting was almost invariably of one type; sudden, projectile, with little or no preceding nausea, and with very little subsequent exhaustion. The vomiting was generally repeated. The patients who escaped this initial symptom were mostly adults. During the period of invasion, convulsions were as rare as vomiting was common. Initial chills in adults were much more common than convulsions in children. Of the various symptoms which are spoken of as characterizing the invasion of scarlet fever, the one almost invariably present is sore throat. Now, the eruption of scarlet fever affects the mucous membranes as well as the skin, and manifests itself on the mucous membranes first. Consequently, the pharyngitis or amygdalitis generally precedes the dermatitis, which is the essential part of the skin lesion, though it may require a magnifying glass to make out the separate points. The eruption, of course, has its areas of selection on the mucous membranes as well as on the skin; and it may omit mucous membranes altogether, just as in some cases it is wholly absent from the skin. Logically speaking, therefore, only those cases of scarlet fever have a period of invasion in which the eruption is nowhere to be seen until after symptoms have appeared.

In the very earliest cases, that is, in those admitted on the first day (so far as could be made out from the history and symptoms), the eruption frequently could be found in the anterior axillary folds only, extending first to the chest and neck. In measles, a mild case usually has an abundant and quickly developed eruption; in scarlet fever, the extent and intensity of the skin lesion—barring, for the present, hæmorrhagic cases—is an unreliable guide in prognosis. A slightly developed or a well-developed eruption may be present in what turns out to be a very mild or a very severe case. The eruption may even be petechial in small areas without adding to the sickness of the patient. A generally distributed hæmorrhagic eruption, however, is characteristic of a toxic or malignant case.

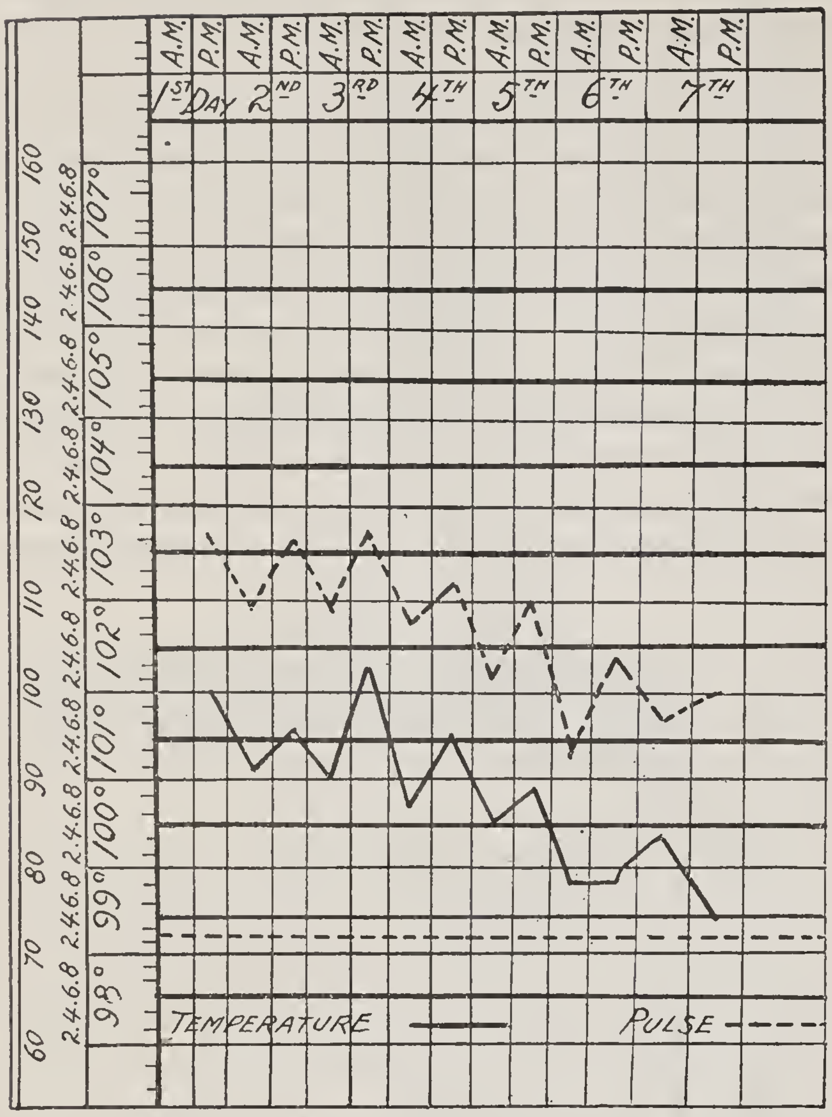
Of the early and favorable cases, one hundred and eighty-five were five years old or under, having an average age of three years. These cases showed an average temperature on admission of 102.2° F. The temperature reached its maximum on the evening of the third day, at 103° F. The influence on the pulse showed itself more rapidly, and lasted longer, than on the temperature; a maximum of 130 being reached on the evening of the second day, and the pulse remaining above 125 for six days. Chart 1 and 2 gives the composite pulse and temperature curves for these cases during the first week. Speaking of favorable cases only, the effect of scarlatinal poisoning becomes less marked and more transient as the patient gets older. This is very well shown by comparing the composite pulse and temperature curves in Chart 1 and 2 with those of cases between five and sixteen years (Chart 3 and 4), and of cases sixteen years and over (Chart 5 and 6). In all these cases the effect on the temperature is, I think, rather less than the books would lead us to expect, and the effect on the pulse rate somewhat out of proportion to the increase of temperature. The effect of the poisoning of scarlet fever on the temperature and pulse in fatal cases is progressively

CHART 1 AND 2.



185 CASES—5 YEARS AND UNDER.

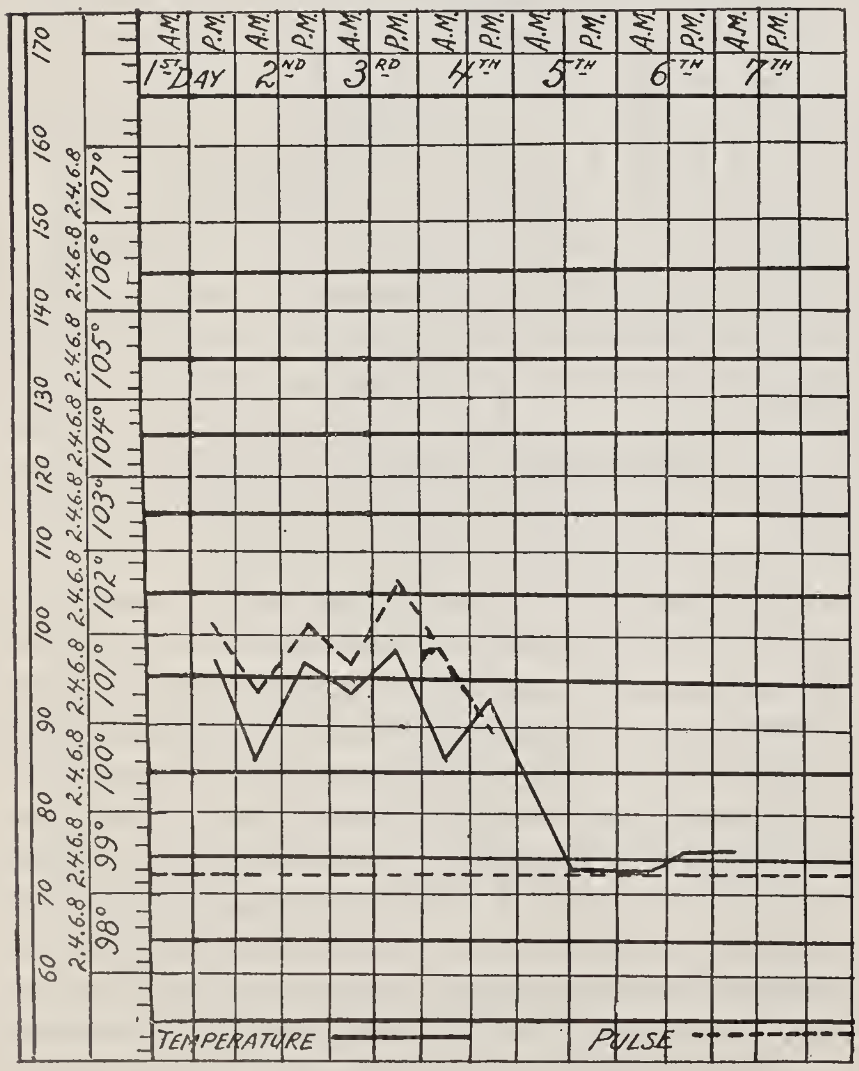
Chart 3 and 4.



115 Cases—Over 5 Years, Under 16 Years.

greater and greater until the end. I refer here to cases dying directly from sepsis or from scarlatinal toxæmia.

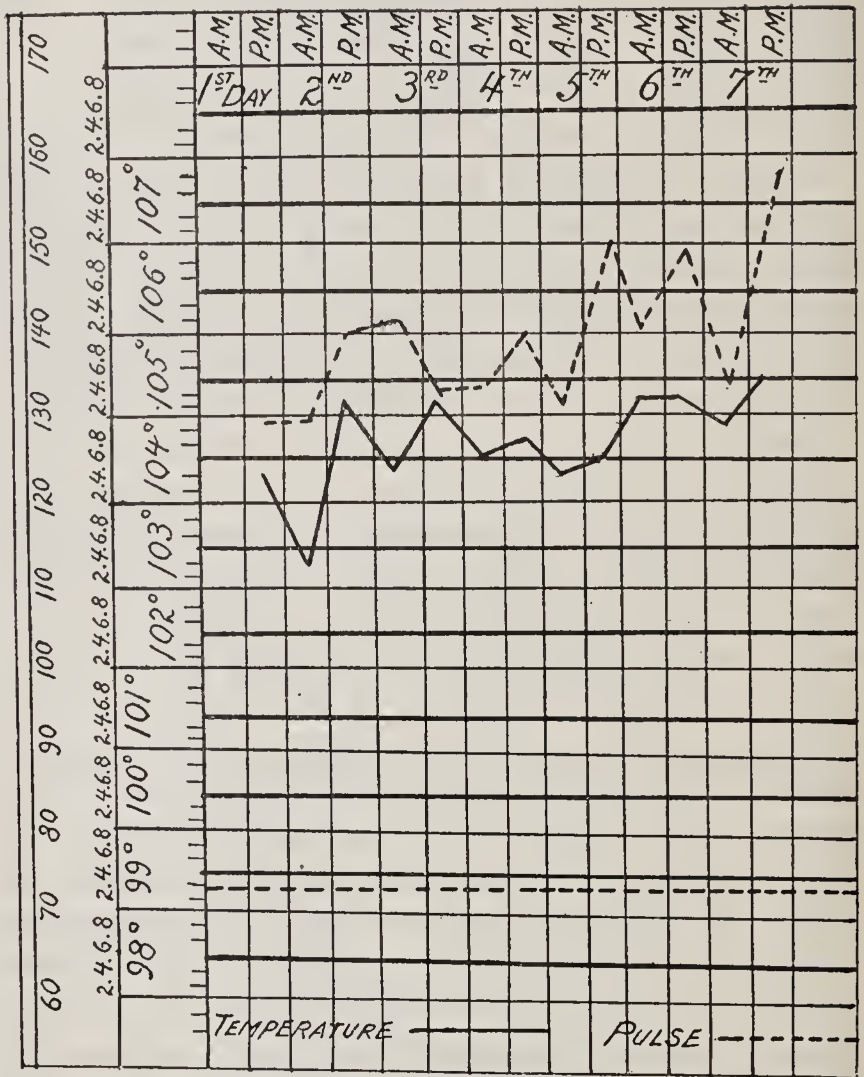
Chart 5 and 6.



141 Cases—16 Years or Over.

I have no experience whatever with toxic cases so intense as to produce depression with little or no eruption, and with sub-normal pulse and temperature. In the hæmorrhagic cases occurring in this series, the eruption was abundant in every instance; either petechial or diffusely purpuric from the start. The temperature was high at the outset and reached its maximum at about the time of death. The pulse followed a similar course and generally, toward the end, could not be counted—except by experts. Chart 7 and 8 is made up from fifty fatal cases, in all of which a fatal result ensued during the second week.

Chart 7 and 8.



50 Cases—Dying during Second Week.

In the favorable cases there was little or no treatment for the temperature. In these fatal cases, the treatment, though active, had little or no effect. So far as my observation goes, there is no temperature that will "get back at you" with greater promptness or persistence than that of a fatal case of scarlet fever poisoning.

Most of the complications among these patients followed along the lines one would expect, *i. e.*, along the course of the original lesion. Albumin—frequently in traces only—accompanied the desquamation of the degenerated kidney epithelium in many cases. This albumin usually appeared during the first week and cleared up in a week or ten days. When a true nephritis was present, it was generally acute with the usual run of symptoms. In cases going on to a chronic nephritis without acute onset, the kidneys or temperature often gave little or no indication. One set of symptoms was, however, pretty uniformly present in a sufficiently pronounced and persistent type to attract attention, viz., disturbance of the stomach. The onset of anorexia, nausea, vomiting, distress after eating, in or about the fourth week of scarlet fever, in patients otherwise doing well, is a fairly reliable indication that they will pass the rest of their days with damaged kidneys. Usually, in the nephritis as well as in the otitis cases, a rise of temperature was the initial symptom. In otitis, the rise of temperature with the unmistakable evidences of pain made an early diagnosis possible, even in the smallest children. Early diarrhœa, if any, ran a mild and short course. Colpitis, when present at all, usually appeared during the second week and, under cleanliness, disappeared within a week or ten days. A vaginal discharge in all respects resembling that of scarlatina occurs, of course, in young children in many other diseases. Its relative frequency here is sufficiently greater to entitle it to special mention.

Of course, if a scarlet fever patient during the third, fourth, or even fifth week, is stricken with diphtheria, shows Klebs-Löffler bacilli, and, as frequently occurs, goes on to croup, this is not a complication but a new disease. The liability to this attack, however, is so great, and the means by which the contagium reaches the patient are so elusive, that post-scarlatinal diphtheria certainly seems to merit a place along with the complications. I should feel much less solicitude about a healthy child in a diphtheria ward, under all precautions, catching diphtheria, than about a scarlet fever patient in its own ward coming down, late, with something neither clinically nor bacteriologically distinguishable from diphtheria. We know all about the contagium of diphtheria; how it lives, thrives and has its being; what it can do and what it cannot do. Yet this infection will get to a scarlet fever convalescent with an ease and certainty that puts even the germ of measles to shame. This is undoubtedly explained by the fact that many throats contain Klebs-Löffler bacilli of a virulence incapable of producing symptoms so long as the throat is normal. But let the throat become weakened by the prolonged influence of scarlet fever poisoning, and the hitherto latent diphtheria germs are enabled to manifest themselves clinically. In order of frequency, complications occurred as follows:

	Per Cent.
Acute degeneration of the kidney	20
Adenitis (cervical)	18
Otitis	8
Nephritis	4
Rheumatism (?) (affected joints)	4
Diffuse cellulitis (cervical) (generally fatal)	2

Myositis, endocarditis, pericarditis, bronchitis, ulcerative amygdalitis—all occurred in less than one per cent. In general, the liability to complication varied inversely as the age, rheumatism being the notable exception.

The skin lesion of scarlet fever is a true exudative inflammation, the separate foci presenting a more or less abundant peripheral erythema. The complication of this lesion, or the sequela of it, is the skin desquamation. This depends on the extent and intensity of the dermatitis. When the dermatitis has been severe, it may be well under way before the rash disappears. On the other hand, desquamation may not begin for two, or even three weeks, following the eruption. There may be a period, therefore, between eruption and desquamation, during which there is nothing, unless it is the history, to call attention to scarlet fever. The period from the onset of the disease to the completion of desquamation averaged between six and seven weeks. When I say completion, let me add that this is a very variable term, depending largely for its significance on the inspector and on the person preparing the case for inspection.

In regard to the diagnosis, I want to say, first, that there is, every once in a while, a case that nobody feels sure about. The drugs most liable to lead one astray are the bromides, iodides, iodoform, and, *par excellence,* diphtheria antitoxine. I have more than once seen a large and unquestionably intelligent staff of physicians wofully at variance as to whether a given rash was due to scarlet fever or antitoxine; and even an autopsy, if an opportunity for one occurred, would not always decide the question to everybody's satisfaction. One thing, however, is certain. Many cases which would have been promptly transferred as undoubtedly scarlet fever previously to the advent of antitoxine, were considered more than doubtful after that remedy had acquired its reputation as a rash-producer. The diseases most likely to lead to confusion are german measles, variola, septicæmia, pyæmia and erythema scarlatiniforme. There is generally something either in history, symptoms, or lack of symptoms to help one out. I want to call attention particularly to variola. If a hæmorrhagic small-pox proves fatal before reaching the vesicular stage, it may very well be impossible to diagnosticate from a hæmorrhagic scarlatina. A single hæmorrhagic vesicle is, however, considered a sufficient means of distinguishing.

Concerning the treatment pursued in this series of cases: For the general welfare of the patients and for the avoidance of complications, rest in bed, and fluid, or semi-fluid, diet were insisted on for three weeks. Patients who feel as well as they ever did in four or five days or a week are apt to consider this rather heroic treatment. Its importance, however, in my opinion, cannot be overestimated. For the scarlet fever itself, streptococcous antitoxine was tried for a short time; the immediate object being to test its effect on scarlatinal throats. The results obtained, however, did not seem to justify the continuance of its use.

Frequent sponging with weak solutions of carbolic acid or bicarbonate of sodium was utilized for itching, painful tension, or other irritable conditions of the skin. The temperature was usually treated according to its effects on the patient. In cases where the distress was out of proportion to the rise of temperature, the relief afforded for the extreme restlessness, insomnia, or even delirium, by means of baths, could be very much augmented by the use of sedative drugs. Among the various remedies used, a pheno-bromide combination was most effective. It acted well, as both a sedative and an antipyretic, and could be given to children in much larger and more effective doses without causing depression than any of the other sedatives. With temperatures unusually high or unusually persistent, baths and packs were largely used. A graduated bath was often given, beginning at the temperature of the patient, and reducing the temperature in from ten to fifteen minutes, twenty, thirty, or even forty degrees Fahrenheit. There is no particular danger of the patient's taking cold, and there are very few, if any, contraindications to the reduction of a temperature of 106° F. If the temperature of the bath must be very low—say 65° F.—or even that of an ice pack, heat applied during the bath or pack to the arms and legs by wrapping them with hot blankets, is an excellent aid in avoiding depression. Too much stress cannot be laid on the necessity for careful and skillful attention to the ears: early diagnosis, anticipation of rupture of the membrana tympani by early operative intervention, or proper enlargement of the opening when rupture has occurred, both to promote freer discharge and to secure better drainage; scrupulous and persistent cleanliness in all cases with discharging ears, are all of the highest importance. Equally important is attention to every detail affecting the best interests of the kidneys. For, while scarlet fever is a pleasant disease to treat, and while most of our cases recover, there are few diseases that call for greater solicitude or more exacting attention to detail than scarlet fever, in order to assure the patient's future physical welfare.

244 EAST NINETEENTH STREET.

A PLEA FOR GENERAL ANÆSTHESIA IN THE TREATMENT OF MAMMARY ABSCESS.

By FRANK H. FIELD, M. D.,
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MASTITIS, under the beneficent influence of asepsis in the management of the puerperium, is met with in only a small proportion of cases at the present time as compared with the days before asepsis was so clearly understood and appreciated; and it may be assumed that all cases now encountered are the result of infection through erosions or fissures of the nipple, and that this might have been avoided by strict asepsis, in the care of the nipple before and after nursing. It should, moreover, be equally appreciated that the infant may infect the nipple, and that its mouth should receive careful attention.

In certain malformations of the nipple, particularly, I think, in the mushroom variety, the first indication of erosion or fissure should call, not only for immediate treatment, but also for the use of a shield, until the danger of infection is over.

In this variety of malformation, which seems to bear an intimate relation to breast inflammation, instructions should be given that the child be nursed at regular intervals, and, in the presence of considerably excessive secretion, that it be seen to that the gland is sufficiently emptied. If it is not, recourse should be had to the breast pumps or to massage. Milk stasis is certainly a frequent precursor of mastitis, and, while it cannot be held to be *per se* the causative factor of mammary inflammation, it offers a most favorable medium for the development and propagation of bacteria. Milk stasis is usually accompanied by a slight rise of temperature, and is productive either of pain or of a sense of fullness in the breast. Inflammation of the connective tissue around the acini of the gland may or may not be productive of pain, but always shows itself by a rise of temperature. The diagnosis is not always easy, but it is safe to assume that, if relief is not afforded by massage, parenchymatous inflammation exists, and if it goes on to suppuration, an early and thorough operation should be performed.

The subject of this paper was impressed upon me by the necessity of having recently to perform several operations upon a young woman, the need of which was evident, but it did seem pitiable that so much suffering should have been entailed (mostly mental in this case), that such disfigurement should result, and that the baby should be made the subject of experimentation in artificial feeding, much to his detriment, through a failure, in the first place, to instruct the mother to carefully cleanse the nipples before and after nursing with boric acid or some other antiseptic solution, paying the same tribute to the baby's mouth; and, in the second place, through a failure on the part of the attending physician, who operated before I was called to the case, to make the operation thorough, which in deep-seated inflammation in this gland can be accomplished only under general anæsthesia. When I first saw the patient, three weeks after her confinement, the nipple on the left breast was of the mushroom type. The right nipple was normal and well developed. The left nipple became eroded, but, unfortunately, no attention was paid to it.

At about the second week, a lump was noticed in the left gland near the axillary border, and ichthyol ointment was applied "to scatter it," whatever that means.

On Saturday, two weeks and a half after the confinement, as the lump had refused to "scatter," but had increased in size materially, an incision was made under cocaine anæsthesia, and a linseed poultice was applied, with the linseed in direct contact with the wound. The family physician left the city the same day, and nothing was done, except to apply fresh poultices every few hours, until the following Tuesday, when I was summoned.

The left breast was found to be enormously enlarged, with nearly the whole upper zone indurated and decidedly hyperæmic. Even with this distention, pain was not complained of. There was also an indurated spot in the right breast, with some hyperæmia. The pulse was frequent and the temperature 102.6° F.

Before going any further, I wish to protest against the use of linseed poultices under such conditions, for I can say with perfect frankness that if ever a linseed poultice deserved honorable mention as fulfilling the three requirements of heat, moisture, and filth, it was in this case.

Early on the following day, after having the night before left the usual instructions as to emptying the bowels and abstinence from food in the morning, I operated. The puerperal state, in most cases, seems to render the patient more susceptible to chloroform anæsthesia, or to lend potency and safety to that drug, for in this state it is always kindly taken, and seems to be free from danger. This is a second reason for urging general anæsthesia in operating in these cases.

After anæsthesia is complete, the situation of the abscess should be outlined, so far as possible, by palpation. The field of operation, it is needless to say, should be thoroughly asepticized before operating. The incision is to be made only through the skin and subcutaneous tissue, to a depth of from half to three-quarters of an inch, and in a direction radiating from the nipple, so as to avoid cutting transversely the milk ducts. A dressing forceps or a dilator should now be introduced into the wound between the acini, which are visible and dilated, so as to admit the index finger into the abscess cavity. The finger is to be introduced and passed in all directions, breaking down all friable tissues and opening up adjacent and communicating cavities, and counter-openings made at as many points as necessary to permit of free drainage.

In the case referred to, eight or nine pockets were opened up, and over a quart of pus was released. At the same time the abscess in the right breast was opened in a similar manner, liberating considerable pus from a cavity as large as a hen's egg.

The cavities were then thoroughly irrigated with hydrogen dioxide, of full strength, followed, after the dioxide solution came away clear, by a two-per-cent. creolin solution. The cavities were next tightly packed with gauze soaked in a two-per-cent. creolin solution, and the breast was dressed with gauze and cotton, a considerable quantity being placed under the breast, to equalize the pressure of the flannel binder, which was snugly applied; and care was taken to raise the breasts toward the clavicles before it was applied. The dressing was left *in situ* for twenty-four hours, when the packing was removed and the cavities were irrigated with a one-to-three solution of hydrogen dioxide, followed by a one-per-cent. creolin solution.

Drainage was secured by passing a strip of gauze from one cavity to another, and the breasts were dressed again as before, the dressings being kept wet by pouring the creolin solution under the dressings. On the third day the drainage gauze was removed and the wet dressing continued. The right breast made an uninterrupted recovery, the wound being healed in seven days, and the baby was then allowed to return to the use of this breast.

The left breast became affected with another area of induration, with a rise of temperature; and I thought it would be satisfactory, inasmuch as it seemed possible to locate in the upper zone and to the extreme right of the gland, with some degree of accuracy, the outline of the pus formation, to operate under local anæsthesia, which was produced by ethyl chloride and Schleich's solution.

It was the result of this that decided me to use general anæsthesia in the future, for the cavity extended into the lower segment of the gland, and it became necessary to give chloroform and to make three additional openings besides reopening the first incisions and packing all the cavities as at first. It is impossible, in these deep inflammations, to know in what direction the pus has burrowed or how many lobes may be affected. This can be determined under general anæsthesia, and if the operation is performed early, healing within from seven to ten days can be depended on. The left breast in the case described was healed in three weeks.

147 MASSACHUSETTS AVENUE.

MASTOID ABSCESS.

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MOBILE, ALABAMA,
ADJUNCT PROFESSOR, ALABAMA MEDICAL COLLEGE.

THE case of mastoid abscess, as reported by Dr. Harrigan in your issue for November 10th, is both interesting and instructive.

His remark that "the perforation through which the pus made its appearance cut off the superior anterior quadrant of the membrane" is a key to the situation.

Recalling the anatomy of the tympanic cavity, it is evident that the original perforation existed in Shrapnell's membrane, and that the suppurative process was at first confined to Prussak's space.

We know that disease of this portion of the middle ear runs a peculiarly obstinate course, and that the accompanying inflammatory swelling cuts off Prussak's space almost entirely from the middle ear proper; also that ordinary methods of cleansing rarely clear this space of the masses of accumulated mucopus and epithelial *débris.* Syringing through the external auditory meatus, or through a catheter placed in the mouth of the Eustachian tube, because of its anatomical isolation does not cleanse it. The only successful method of treating suppuration of this space includes washing it out through a Hartman's cannula, the end of which is passed well through the perforation.

It is natural to suppose that this patient had previously been treated by the usual method for middle-ear suppuration; viz., syringing with sterilized water or some mild antiseptic solution, followed by insufflation of powdered boric acid, which is too frequently used in sufficient quantity to cake and occlude the perforation. The result of this would be a damming up of the secretion in Prussak's space. This would then tend to break into the middle ear and to pass back into the adjacent mastoid cells, producing there a subsequent inflammation.

We must remember that the development of the mastoid process continues during the early years of childhood, the cells gradually developing backward from the mastoid antrum (Zuckerkandl). Therefore, in a child seven years old, the cells would still be few in number, small, and directly adjacent to the antrum; in other words, they would more readily empty their contents into the middle ear than could occur in the adult.

The selective time for successful operation in mastoid disease is early after diagnosis; just so soon as ordinary antiphlogistic measures, Leiter's coil, leeching, etc., fail to check the inflammation. There is no reason to wait until pain and suffering have so reduced the patient's strength, that operative procedure means almost certain death.

But this case came to hand late, and its treatment may be regarded as conservative, judicious, and peculiarly fortunate in its result. The hydrogen dioxide disorganized the inspissated accumulation. The poulticing doubtless increased the size of the perforation, thus permitting free drainage of the tympanic cavity, into which the few, small, partially developed mastoid cells opened. These being relieved of their contents, the inflammation promptly subsided. As no necrosis of the ossicula existed, hearing was preserved.

I would draw the following conclusions: Early recognition of the site of the perforation with adequate treatment, usually prevents mastoid complications in disease affecting primarily Prussak's space, with perforation of Shrapnell's membrane.

And I agree most emphatically with the editor that one such fortunate termination bears small proportion to the great number of unreported fatalities which occur from lack of early surgical interference.

156 St. Francis Street, Mobile, Ala.

WHAT IS NORMAL MENSTRUATION?*

By GEORGE J. ENGELMANN, M. D.,

BOSTON.

What is normal menstruation? or, more correctly, *What is the menstrual condition of the average girl in average health?* is a question which may well be asked. Familiar as we all are in a general way with the condition, we have no complete and positive knowledge.

The menstrual period proper is the entire period of disturbed equilibrium, of intensification and depression, though usage has confined the term to the time of depression, of the hæmorrhagic flow, regardless of the preceding period of intensification, and I shall here follow the general custom.

During this time, physical endurance, judgment, mental acumen and capacity are affected, the circulation is disturbed, pulse, temperature, blood pressure, pulmonary capacity, nerve tension and muscle force fluctuate. Such changes are noted with every recurrence of the flow; and the oncoming of the function, the advent of puberty, is like a tidal wave with a depression similar in character but more far-reaching, and preceded by an intensification of all vital powers which more deeply influences the woman's entire being.

Hegar, Reinl, Meyer, and de Ott have taught us much, and the classic study of Emmet has clearly traced certain phases of the period in later life; but the knowledge we possess is based upon the revelations of hospital and clinic or consulting room—it is derived from the sick; of the healthy we know nothing.

Investigation has not yet revealed the actually existing status in the average girl in good average health, in puberty and adolescence. This I have attempted to effect, and here present the facts as culled from the records of nearly 5,000 cases, from high and normal school, from college and department store, of girls between fifteen and twenty-six years of age, the majority between eighteen and twenty-two, in rather better than average health, and in numbers sufficient to admit of positive deductions. While, as to the details every case is a law unto itself, these numbers permit me to trace an average, and also the laws which determine variations from such average, but it is the average of existing conditions only that I here present.

Recurrence: The function is supposed to recur monthly, every 28 days, but this is true of only some 31 per cent., the larger number, 45 per cent., being retarded, and 24 per cent. recurring in less than 28 days; there is a wide range, between 21 and 42 days, with extremes far beyond these limits, most frequently in a multiple of 7: fully 50 per cent. are irregular, that is, do not recur with regularity to the day; a variation of over 2 days is very common, especially from 26 to 28 and from 28 to 30; frequently it is 7 days, from 21 to 28, and but rarely over 3 weeks, from 21 to 42 days.

This irregularity increases distinctly by at least 10 per cent. as duties become more stringent, or application, mental or physical, more intense; mental exertion shortens the interval, physical strain—if not too great—rather tends to prolong it.

The average frequency in one freshman class was 36.75 days, a prolongation due to change of habits; but I have found no average of any larger number below 26.56, and this was in a senior class, with hard study.

Recurrence, like all other phases of this function, is influenced by circumstances and surroundings, by conditions mental and physical, more especially in the early years when the system is most impressionable. Later the tissues are more resistant, the nervous and mental balance is more perfect, so that variations are less frequent and minor disturbances no longer affect the function. I find in a normal school, in one group of students the average of 27.03 days reduced to 26.56 by closer application and more serious work, while in another group, in better physical condition from more exercise and more hours of physical training, the change was decidedly less, and their average nearer to normal, 28.43 days.

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* Abstract of paper read before the Southern Surgical and Gynæcological Association at Atlanta, Georgia, November 13, 1900.

Duration: The average duration, varying in different groups from 4.4 to 5.5 days, is 4.6 days, much the same as that found by Emmet, who notes 4.82 as the average at puberty for those in the best health, who are regular from the first, with a change to 4.66 for the same in after-life. The variation is from 2 to 7 days with very few beyond these extremes, the largest numbers at 4 and 5 days; of 1,000 freshmen, 30 per cent. showed 4 days; 31 per cent., 5 days; 9 per cent., 6 days. In the girl at work the duration is shorter; in 20 per cent., 3 days; in 23.8 per cent., 4 days; in 24.25 per cent., 5 days; in 10 per cent., 6 days; rarely do we find the highest average of a group of girls at study, as in one college group, 40 per cent., from 5 to 7 days.

Suffering varies with different groups between the extremes of 32 per cent. and 95 per cent., more generally from 50 to 80 per cent., averaging 67 per cent.; in this I include moderate pain. From 11 per cent. to 18 per cent. suffer severely; as a rule there is an increase of at least 10 per cent. with increase of mental strain in higher grade schools, but in a few modern, well-managed institutions, where proper attention is given to arrangement of study hours and to physical training, I note decrease of suffering.

The average for school and college is from 40 to 70 per cent.; for the girl in the department store, 83 per cent., differing with kind of work. It is least, 78 per cent., among floor-walkers and those who move about; among clerks and stenographers, sitting, 85 per cent.; saleswomen, those who stand, 91 per cent. By the seventeenth year the largest amount of suffering has developed, increasing, as a rule, with difficulty or strain of work.

Work, mental and physical, is *more trying and more wearisome during the period of depression,* as is admitted by at least 65 per cent. of students and working girls. It is more so as work is more severe, and also in younger years. In one college, 83 per cent. of a senior class preparing for the first examination found work harder, and only 69 per cent. of the junior class admitted this. In a normal school, 69 per cent. of those with but two periods of physical training weekly so stated, while only 52 per cent. of those who gave more time to bodily development felt the same relaxation. Eighty per cent., in the average, among working girls, vary from 78 per cent. to 91 per cent., according to the kind of work.

The most convincing proof of the impaired condition of the system, the existing lassitude and depression, is presented by the number of those who seek relief from daily routine of duty, or who are excused from work or study during the period of greatest relaxation, at the beginning of the flow.

This is done for two reasons:

1. For the sake of prevention and protection against injury during this period of increased susceptibility.

This has, of recent years, been done to some extent by the advice of physicians here and there, but in some prominent private schools in our large cities the number habitually excused, as a precautionary measure, is surprisingly large; in one, 60 per cent.; in another, 24 per cent., with 46 per cent. excused at times. This, of course, is in the smaller fashionable schools where urgent necessity for close application does not exist, though some of the girls are preparing for colleges.

2. Necessity obliges others to rest by reason of their disability to perform the usual duties, and *30 per cent. are more or less frequently excused from work or study* on account of debility or suffering during the first day or two of the flow.

This is true of the higher institutions of learning, of normal school and college, as it is of the occupations; with variations determined by intensity and strain of duty, greater in higher classes than in lower, and in the more trying forms of work, as of saleswomen and those who stand.

Few are habitually excused, yet always some, and in exceptional cases as many as 17 and 20 per cent.; even nurses, who are supposed to enter upon training in perfect health, show 14 per cent. occasionally excused from recitation, and 17 per cent. from the physical duties of their work.

The claims of necessity in the struggle for existence must yield to the lowered vitality of the period.

Résumé.—In brief, the menstrual period proper is characterized by an intensification of all vital energies, followed by a depression that appears with the coming of the flow, and this latter is the phase ordinarily termed "menstruation." *Under ideal conditions* and in perfect health, the physiological status is such that this epoch, preceded by a day or two of heightened activity, is marked by a moderate lassitude, mental and physical, the flow persisting for from four to five days and recurring at regular intervals of about twenty-eight days. It is a period of heightened susceptibility, and is so sensitive a barometer as to quickly record any variation from the normal; excitement, exertion or fatigue, mental or physical, are promptly indicated by variation in this function, and in our everyday life such disturbing elements constantly occur, so that conditions actually existing vary greatly from this ideal.

The average period, of the American girl in average health, presents very different features: Regularity in 50 per cent. only, recurrence every 28 days in 30 per cent., varying most frequently from 26 to 42 days, and being in 45 per cent. over 28; duration varies from 2 to 7 days, averaging 4.6 days; from 66 to 70 per cent. suffer more or less, the number of sufferers varying according to age and intensity of occupation, between 30 and 90 per cent. Lessened ability for exertion, mental or physical, is admitted by 60 per cent.; some few are habitually incapacitated from work, and 30 per cent. occasionally.

The functional condition of the girl, in good health, under modern conditions of life, is by no means the ideal one, and, in fact, the functional health of the American girl, the coming mother of American men, is far from what it should be by right of inheritance and surroundings. This fact we must recognize, we must face; upon physicians and educators devolves the duty of the study and correction of the evil.

208 BEACON STREET.

Therapeutical Notes.

The Treatment of Fissure of the Nipple.—Dombrovsky, says the *Deutsche Aerzte-Zeitung* for October 1st, advises bathing the nipple with a 2 to 5-per-cent. solution of potassium permanganate several times a day, and says that a cure will result in a week at the most. The first few applications are slightly painful, but the pain soon subsides. Nursing need not be interrupted; before the breast is offered, the nipple is washed with warm water, and the adjacent parts are covered with some waterproof material or with a thick linen compress having an opening cut in it for the nipple to project through.

A Lotion to Promote the Growth of the Hair.—The *Lyon médical* for November 4th attributes the following formula to Dietrich:

℞ Quinine hydrochloride	1 drachm;
Tannin	2½ drachms;
Alcohol	27½ ounces;
Tincture of cantharides	2½ drachms;
Glycerin	3 ounces;
Cologne water	10 drachms;
Vanilline	1½ grain;
Powdered sandalwood	¾ grain.

M. Let the mixture stand for four or five days, and filter. The scalp is to be rubbed with the lotion every other day.

The Treatment of Impetigo Contagiosa Bullosa.—Dr. Martin F. Engman (*St. Louis Medical Review,* November 10th) says that when the disease is distributed over a large area and there is much crusting, a bland oil, such as carron oil, liquid albolene, or sweet oil, to which is added two per cent. of salicylic acid, should be used. This is to be rubbed well over the surface, the bullæ opened, the crusts gently detached, then the following powder plentifully dusted on:

℞ Salicylic acid	20 to 30 grains;
Boric acid, Zinc oxide, Starch, of each	2 drachms.

M.

Baths are contraindicated. Ointments also seem irritating. A drying, mildly antiseptic, soothing dusting powder, with a bland oil to soften the crusts and prevent the clumping of the powder when mixed with the serous oozing and contents of the bullæ, has proved, in his hands, the most successful method of treatment.

Subconjunctival Injection for Chorioiditis.—Dr. Etiévant (*Province médicale,* August 18th) says that Sourdille, of Nantes, employs with unvarying success subconjunctival injections according to the following formula:

℞ Metallic iodine	from $\frac{15}{100}$ to $\frac{30}{100}$ of a grain;
Potassium iodide	15 grains;
Boiled distilled water	450 "

M.

Rhus Aromatica for Incontinence of Urine in Children.—Mme. Perlis (*Thèse de Paris,* 1900, No. 578; *Gazette hebdomadaire de médecine et de chirurgie,* November 4th) recommends the following formula:

℞ Fluid extract of rhus	5 to 20 drops;
Aromatic syrup	20 drops;
Distilled water	a sufficiency.

M. One such dose to be given three times a day.

The amount of the fluid extract to be taken three times a day is from 5 to 10 drops for a child between two and five years old; 10 to 15 for one between five and ten years old; and 15 to 20 for one over ten years old.

For Constipation in Children.—The *Therapist* for November 15th gives the following formula as a most effective remedy for constipation in children:

℞ Powdered rhubarb	22½ grains;
Powdered ipecacuanha	4 "
Sodium bicarbonate	60 "
Syrup	4 ounces.

M.

A teaspoonful every three hours.

Veratrine in the Pruritus of the Menopause.—According to the *Journal de médecine de Paris* for November 11th, Lutaud thinks the analgetic effects of veratrine are of special service in pruritus occurring at the time of the menopause. If the itching is confined to particular parts, such as the groins, the axillæ, or the abdominal wall, he employs this ointment:

℞ Veratrine	2¼ grains;
Lard	1 ounce.

M.

A portion as large as a pea to be applied, with gentle friction, morning and night.

If, however, the itching is general, veratrine is to be used internally in the form of pills made by the following formula:

℞ Veratrine	0.30 of a grain;
Powdered licorice	a sufficiency.

M.

Divide into forty pills. To begin with, only one pill should be given in the course of a day, half an hour before a meal or three hours after it, but the dose may be increased if necessary by one pill each day until the maximum of six pills a day is reached.

An Ointment for Orchitis.—The *Journal des praticiens* for November 10th gives this formula:

℞ Lanolin	40 parts;
Guaiacol	5 "
Methyl salicylate	20 "

M.

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THE NEW YORK STATE LUNACY COMMISSION AND THE STATE PATHOLOGICAL INSTITUTE.

FOR some months past an unfortunate controversy has been going on between the State Commission in Lunacy, represented by its president, Dr. Peter M. Wise, and the director of the Pathological Institute of the New York State Hospitals, Dr. Ira Van Gieson. The State hospitals, it may be necessary to inform some of our readers, are lunatic asylums. Both Dr. Wise and Dr. Van Gieson are good at controversy, and their writings on their disagreements are entertaining, although it would have been better if the occasion for them had not arisen.

Dr. Wise's main contention, as we understand it, is to the effect that the work done in the institute is too exclusively in the way of investigating deep problems in psychiatry and not sufficiently in the direction of doing ordinary pathological investigation for immediate use in the conduct of the hospitals and in that of training young medical graduates to be competent alienists from whose ranks the medical staffs of the hospitals may be recruited. The commission supports its contention by a report on the work of the institute by a committee of its own appointing, consisting of Dr. Edward Cowles, Dr. William T. Councilman, and Dr. G. Alder Blumer. The commission has gone so far as to charge Dr. Van Gieson with insubordination (the institute being under the direction of the commission) and virtually to threaten him with dismissal from the directorship.

Dr. Van Gieson maintains that he has not refused to carry out the commission's wishes as to the training of young men, but, on the contrary, has given systematic instruction to all that he could induce to come to the institute from the hospitals, and that, too, in the face of the fundamental difficulty resulting from their insufficient preparatory training. In the matter of doing ordinary pathological work for the hospitals, he contends that there has been no refusal to attend to everything that the medical officers of the hospitals chose to class under that name until it came to a request for analyses of certain samples of bed-bug poison, when the institute did finally rebel. He avers, however, that such ordinary work, which might well enough be done in the local laboratories, consumes a great deal of time that ought to be given to the study of matters more pertinent to the real objects for which the institute was created. He declares, moreover, that, although he cares little for his official position, he cares a great deal for the undisturbed prosecution of the great work which he conceives to be the proper function of the institute.

Dr. Van Gieson is sustained in his contention by a number of eminent American physicians, among whom are Dr. E. L. Trudeau, Dr. Allan McLane Hamilton, Dr. Edward D. Fisher, Dr. Græme M. Hammond, Dr. E. C. Spitzka, Dr. Charles L. Dana, Dr. Pearce Bailey, Dr. Frederick Peterson, Dr. A. Jacobi, Dr. Francis Delafield, Dr. George L. Peabody, Dr. William H. Draper, Dr. William H. Thomson, Dr. William H. Welch, Dr. Hugo Munsterberg, Dr. Hugh T. Patrick, Dr. S. Weir Mitchell, Dr. Wharton Sinkler, Dr. Charles K. Mills, Dr. Reginald Fitz, Dr. James J. Putnam, Dr. William N. Bullard, Dr. H. P. Bowditch, Dr. Edward K. Dunham, Dr. Herrman M. Biggs, Dr. William H. Park, Dr. Jacques Loeb, Dr. F. G. Novy, Dr. Theophile Klingmann, Dr. William J. Herdman, Dr. F. W. Langdon, Dr. Burt G. Wilder, Dr. Morton Prince, Dr. Philip Coombs Knapp, Dr. Solomon Solis-Cohen, Dr. William W. Johnston, Dr. Edwin G. Conklin, Dr. F. Savan Pearce, Dr. William G. Spiller, and Dr. J. T. Eskridge, besides a number of gentlemen widely known in science who do not happen to be medical graduates; also by such names from beyond the limits of our own country as those of Dr. Adami, of Canada; Dr. Mercier, of England; Dr. Robertson, Dr. Mott, and Dr. Urquhart, of Scotland; and Dr. Edinger, Dr. Weigert, Dr. Arnold, and Dr. Erb, of Germany.

The profession throughout the world is familiar with Dr. Van Gieson's achievements, which may justly be termed great. It is felt, as the multitude of his supporters cited shows, that to hamper him in the prosecution of the institute's work in his own way would be to lower the influence of the institute and to retard our progress in dealing with the difficult problems of mental physiology and pathology. It is therefore to be hoped that the Commission in Lunacy will abandon all attempts to embarrass the work of the institute. In saying this, we do not impute to the commission the deliberate intention of mischievous interference, but it is our conviction that what the commission seeks to have done by the institute, save the training of young medical men in psychiatry, is notably inferior in importance to the investigations to which Dr. Van Gieson longs to give the greater part of his attention.

THE CASE OF THE LATE DR. LINCOLN.

WE think it unwise and indelicate, as a rule, to discuss publicly the details of an illness or injury without suppressing the name of the patient. The case is different, however, when the sufferer is a person of such distinction that a large and influential portion of the community feels an interest in the case, and especially when, as in the case of the late Dr. Lincoln, erroneous statements, including some that are absurd, have been circulated. We understand that some of the rumors that have met with more or less credence in this instance are of a character to prove distressing to the family. This is perhaps due in a measure to the great interest felt by the public in the subject of disease of the vermiform appendix and its readiness to credit the wildest statements concerning things medical. We cannot reach the general public, but we think it a duty to lay before our readers a brief account of the facts in the case, in order that at least the late Dr. Lincoln's professional brethren may be informed of the truth. With the purpose of assisting in the accomplishment of this object, Dr. Henry F. Walker has kindly consented to furnish us with a history of the case, as follows:

Dr. Lincoln had an attack of appendicular inflammation which began early in the morning on October 18th. It was attended with the usual pain, but there was excessive and persistent vomiting, out of proportion to the other symptoms, which were moderate in character. Convalescence was established in a week, and Dr. Lincoln resumed his practice and his usual course of life. Dr. Charles McBurney, who had seen him in consultation with Dr. Walker during the continuance of the acute symptoms, saw him again with Dr. Walker after the recovery from the acute attack, and advised an operation for the removal of the appendix before another attack should occur. On November 18th, just a month from the inception of the first illness, a short incision was made, with separation of the muscular fibres, but it was found impossible to reach the appendix. It was evident that there was an abnormal condition. There was no cæcum. The ascending colon began at about the level of the umbilicus. The appendix was out of reach. The omentum was very short. At the bottom of the wound the intestines could be seen and felt, bound to each other and to the floor of the pelvis by inflammatory exudate which was already organized. As any attempt to search further for the appendix would have been productive of danger, Dr. McBurney decided to close the incision, and the wound healed without a symptom of fever or inflammation. Dr. Lincoln began to vomit as soon as the effect of the ether lessened, and the ether was at first supposed to be the cause of the vomiting, which persisted almost constantly and became regurgitant, but was at no time stercoraceous. It continued until death took place, from exhaustion, on November 26th.

A post-mortem examination was made by Dr. Collins on the same day. The large intestine was found not fully developed, as had been ascertained at the time of the operation. The ileum passed behind the large intestine and entered it on the outer, or distal, side, as in the fœtal condition. The omentum was everywhere short and of imperfect development. The appendix was closely constricted in its proximal third, and in the closed pouch thus formed mucopus was found. The adhesions which had been recognized at the time of the operation proved extensive. They were dense and organized. For a space of six inches the coils of the ileum were bound to each other and to the floor of the pelvis. They were so occluded that nothing could pass through them. This was the cause of the regurgitant vomiting and of the fatal result. The situation of the intestinal stricture explained the absence of stercoraceous vomiting.

METASTATIC GONORRHŒAL INFECTION.

(*Second Article.*)

PASSING over what M. Balzer, in the article noticed in our last issue, has to say of the commoner complications and sequelæ of gonorrhœa, such as cystitis, epididymitis, prostatitis, and inflammation of the uterus and its annexa, also his suggestion that the gonococcus acquires fresh virulence whenever an extension of the original gonorrhœa takes place or menstruation, impregnation, abortion, or parturition at term occurs, we come to his consideration of the ætiology of gonorrhœal rheumatism. He remarks that the gonococcus has often been found in the articular and tendinous synovial sacs, in spite of the difficulties that frequently beset the search for it, such as its being masked by the pyogenic microbes or its having already disappeared when the examination is made. It is possible, he says, that in certain cases arthritis is produced, not by the gonococcus, but by toxines, and that in other instances there is no direct articular infection, but a trophic affection due to distant lesions of the nervous system.

Gonorrhœal rheumatism, although it may complicate any form or stage of urethritis, even the period of incubation, is particularly prone to accompany posterior urethritis, and anything that aggravates the urethral inflammation favors the development of general infection. Certain individuals are predisposed to it and have it anew with every fresh outbreak of gonorrhœa, and this predisposition seems to be independent of the ordinary rheumatic tendency. Gonorrhœal rheumatism, however, shows a predilection for the same structures for which ordinary rheumatism has a preference. The ætiology of chronic gonorrhœal rheumatism is still very obscure, especially that of the form known by the name of progressive pseudo-nodular polyarthritis deformans. In this variety the gonococcus has not yet been found in the affected tissues; the disease commonly follows several relapses of gonorrhœa, and is perhaps due to an influence exerted through the central nervous system.

Endocarditis and myocarditis are common complications of gonorrhœal rheumatism, and possibly are caused by the gonococcus and the microbes associated with it, the staphylococci, streptococci, and pneumococci; it may be due to these associated microbes alone. Previous pathological conditions of the endocardium favor its being affected by the gonococcus. Both endocarditis and myocarditis are especially prone to accompany an exaggerated virulence of the gonococcus. The presence of the gonococcus has been demonstrated in certain cases of periostitis, pleurisy, pericarditis, and subcutaneous abscesses.

THE BOOKS OF THE YEAR.

We are adding a number of pages to this number of the *Journal* for the purpose of setting before our readers a list of the more important medical books that have been published in this country during the year. The busy practitioner who has not had time to examine all our weekly lists has now the opportunity of consulting one that includes practically all the principal publications of the year. It contains the titles of a large number of books of very great merit, and, of those mentioned, few if any are devoid of material value to the practitioner.

SMALL-POX IN NEW YORK.

The few cases of small-pox that have lately occurred in the borough of Manhattan we do not interpret as of serious import. The only disquieting element of the situation is the fact that so many years have elapsed since New Yorkers were last scared by an epidemic of the disease that doubtless great numbers of them have neglected vaccination, so that the number now susceptible to the infection must be very large. The board of health has done well to call attention to this fact and will doubtless follow up its warning by such further action as the developments may call for from time to time.

CHARTER REVISION AND THE CITY BOARD OF HEALTH.

For many years it has been a disgrace to the city of New York that a physician could not be the president of the board of health. We are glad to learn that the revised charter, if it receives the sanction of the legislature and the governor, will do away with this standing insult to the medical profession.

ARSENICAL BEER IN ENGLAND.

The news of many deaths and extensive illness in the district of which Manchester is the centre having been traced to beer rendered poisonous by the arsenic it contains is astounding. The presence of arsenic in the beer is accounted for by the cheap process of manufacture of the beverage, the substitution for malt of glucose made with the aid of sulphuric acid prepared from Spanish pyrites, always contaminated with arsenic. Much has been said against our American beer—with a great deal of justice, we do not doubt—but we supposed they ordered these things better in England.

COCAINE DEBAUCHERY IN THE SOUTH.

It seems that addiction to cocaine has become alarmingly prevalent among the negroes and the lower-class whites in certain sections of the South, so prevalent, indeed, that apothecaries who ordinarily carried a drachm of the drug as the stock on hand have increased the amount to ounces and even to pounds. We learn that there is a locality in Chattanooga known to the police as "Cocaine Alley," a den of vice and filth extending for about four blocks, in which, as a citizen of Chattanooga writes, there "will be found at night about three or four hundred people, mostly black, but with a fair sprinkling of whites, all 'snuffing' cocaine and lying around in all conceivable attitudes and conditions." The local authorities have passed an ordinance forbidding the sale of cocaine except on prescription, but, unfortunately, it is difficult to prevent a prescription from being filled repeatedly, so that one prescription can be made to serve the purposes of a horde of debauchees. It is probable that State legislation will be required to put an end to this foul state of things.

News Items.

Society Meetings for the Coming Week:

MONDAY, *December 10th:* New York Academy of Medicine (Section in General Surgery); New York Academy of Sciences (Section in Chemistry and Technology); New York Medico-historical Society (private); New York Ophthalmological Society (private); Lenox Medical and Surgical Society, New York (private); Harlem Medical Association of the City of New York; Gynæcological Society of Boston; Burlington, Vermont, Medical and Surgical Club; Norwalk, Connecticut, Medical Society (private).

TUESDAY, *December 11th:* New York Academy of Medicine (Section in Genito-urinary Surgery); New York Medical Union (private); New York Obstetrical Society (private); Buffalo Academy of Medicine (Section in Medicine); Kings County, New York, Medical Association; Rome, New York, Medical Society; Medical Society of the County of Rensselaer, New York; Newark (private) and Trenton, New Jersey, Medical Associations; Clinical Society of the Elizabeth, New Jersey, General Hospital and Dispensary; Northwestern Medical Society of Philadelphia; Practitioners' Club, Richmond, Kentucky; Richmond, Virginia, Academy of Medicine and Surgery.

WEDNESDAY, *December 12th:* New York Pathological Society; New York Surgical Society; American Microscopical Society of the City of New York; Society of the Alumni of the City (Charity) Hospital; Society for Medical Progress, New York; Pittsfield, Massachusetts, Medical Association (private); Philadelphia County Medical Society.

THURSDAY, *December 13th:* Society of Medical Jurisprudence and State Medicine, New York; Brooklyn Pathological Society; Medical Society of the County of Cayuga, New York (semi-annual); South Boston, Massachusetts, Medical Club (private); Pathological Society of Philadelphia.

FRIDAY, *December 14th:* Yorkville Medical Association, New York (private); Brooklyn Dermatological and Genito-urinary Society (private); German Medical Society of Brooklyn; Medical Society of the Town of Saugerties, New York.

Röntgen Society Meeting.—The Röntgen Society of the United States will meet on December 13th and 14th, at 10 A. M., in the library of the Grand Central Palace, Lexington Avenue and Forty-third Street, New York City. The executive committee has selected this larger space because of the demands of a more successful meeting than was at first expected. Physicians and surgeons in the city and elsewhere are urged to attend regardless of membership. X-ray examinations with all types of apparatus will be in constant progress during the sessions. Important novelties will be presented.

Interesting Papers for Röntgen Society Meeting.—Among the interesting papers to be read at the first meeting of the Röntgen Society of the United States, to be held at the Grand Central Palace on December 13th and 14th, are: The Development of the X-ray Plate, by Dr. J. N. Scott, of Kansas City, Mo.; A Review of Cases of X-ray Burns, by Dr. E. A. Florentine, Saginaw, Mich.; X-light Apparatus for Physicians in the Country, by Dr. William Rollins, Boston, Mass.; On Diagnosticating Ostitis, Osteomyelitis and Osteosarcoma by the Röntgen Rays, by Dr. Carl Beck, New York City; The Monell Position Finder for Centering Skiagrams, by Dr. S. H. Monell, New York City; Practical Work with the Static Machine and Vacuum Tube, by Dr. J. M. G. Beard, Fruita, Colo.; X-ray in Lupus Vulgaris, by Dr. Joseph Hoffman, Vienna, Austria; The Electrochemic Action of the X-ray in Tuberculosis, by Dr. J. Rudis-Jicinsky, Cedar Rapids, Iowa; Demonstration of the Mount Bleyer Electro-arc Chromolinne for the Treatment of Tuberculosis by Colored Light Rays, by Dr. J. Mount Bleyer, New York City; How to Print the X-ray Picture for Details, by Dr. John T. Pitkin, Buffalo, N. Y.; Standard Pictures in Skiagraphy and How they may be Secured, by Dr. L. A. Weigel, Rochester, N. Y.; The Monell X-light Standardizing Gauge and Fluoroscope Test, by Dr. S. H. Monell, New York City; The Technique of the X-ray Work, by Dr. Mihran K. Kassabian, Philadelphia, Pa.; Stereoscopic Skiagraphy, by Dr. L. A. Weigel, Rochester, N. Y.; General Observations on Crookes's Tubes, by H. Westbury, Harrison, N. J.; Amplifying and Parallelizing X-rays, by Professor Elmer Gates, Chevy Chase, Md.; Stereoskiagraphy, by Dr. G. P. Girdwood, Montreal, Canada; Demonstration of Skiagraphs of Injuries at the Elbow Joint, at Time of Injury, and the Gradual Repair of same, Successive Skiagraphs, by Dr. A. H. Schwab, Brooklyn, N. Y.; and The Monell Distortion Landmark for X-ray Negatives, by Dr. S. H. Monell, New York City.

Hospital Buildings and Endowments.—The Evanston Hospital, of Evanston, Ill., recently received five donations of $5,000 each for the endowment fund.——A new hospital association has been incorporated at Kalamazoo, Mich., with a capital stock of $60,000. The hospital is to be opened to the public at the beginning of the new year. The incorporators are Dr. H. B. Osborne, Dr. Rush McNair, Dr. E. H. Van Deusen, Dr. O. A. Lacrone, Dr. J. H. Lahnis, and Dr. J. W. Bosman.——The supervisors' almshouse committee, of Buffalo, N. Y., is considering the revised plans of the county architect for the new consumptive and cancer pavilions. The estimated cost of the two buildings is about $84,000, $33,000 less than the lowest bid under the original plans.——The formal opening of the new Homœopathic Hospital of the University of Michigan will take place the first week in December. Dr. Charles Walton, of Cincinnati, Ohio, will make the principal address.——Much comment has been caused by the delay in opening the new hospital at Gouverneur Slip, New York City. Though the building is finished and there is pressing need for more hospital room, its doors have remained closed. Investigation made at the instance of the charitable organizations has brought out the fact that the hospital lacks only the furniture and supplies which the city is obliged by law to purchase from the State prisons, and it is this condition which is causing the delay.——An appeal for funds has been issued by the Pittsburgh (Pa.) Free Dispensary. It is estimated that $3,000 will be necessary to run the institution next year.——At the fair held recently in Geneva, N. Y., for the benefit of the City Hospital, the sum of $2,000 was realized.——The Pennsylvania State Board of Charities will recommend the State Legislature to appropriate the sum of $200,000 in the mountains near Wilkesbarre, and will also recommend the erection of a State hospital for epileptics.——The new operating room attached to the Marquand pavilion at the Bellevue Hospital has been dedicated and turned over to the hospital authorities by the donors, Mrs. M. Louisa Dehon and Miss M. H. Dehon. The room, with its appurtenances, costs about $9,000, and is one of the most perfect in its appointments in this city.——Dr. William E. Quine has donated the sum of $25,000 to the library fund of the College of Physicians and Surgeons of Chicago, and Dr. D. A. K. Steele has given $25,000 toward the endowment of a pathological laboratory.——The Parks Hospital at Glens Falls, N. Y., is now ready for occupancy. The building is a handsome three-story structure, with broad piazzas on three sides, with a new two-story addition in the rear.——The Commissioner of Charities of the City of New York has asked the board of estimate for an appropriation to build a hospital at Lenox Avenue and One Hundred and Thirty-eighth Street.——The new wing of New York Hospital, on Sixteenth Street, which will be devoted to private patients, has been formally opened. It will accommodate sixty patients.——The City Hospital of Youngstown, Ohio, is to have a new home, through the generosity of a number of wealthy residents of that city. The new edifice is to cost $100,000, of which $60,000 has been contributed by Myron C. Wick, a prominent iron manufacturer. The remaining $40,000 has been pledged by a few men of means, who have taken a personal interest in the institution.——Subscriptions are being asked to purchase the residence of the late Dr. Franklin Gauntt at Burlington, N. J., of which a memorial hospital will be made, to commemorate the services which Dr. Gauntt rendered to the town and townspeople during the fifty years he practised medicine there.

Postponement of the Pan-American Medical Congress.—We have received an official communication that in consequence of the yellow fever which has been existing in Havana during the past two months, although the epidemic has now nearly subsided, it has been deemed prudent to postpone the meeting of the Pan-American Medical Congress till February. Due notice of the date will be published. Judging from the large number of letters received desiring postponement, in consequence of the meeting being set for the Christmas holidays, it is believed that this change will not occasion wide inconvenience.

Changes of Address.—Dr. G. G. Fischlowitz, to No. 1298 Madison Avenue, New York; Dr. Max Huhner, to No. 64 East Fifty-eighth Street, New York.

Erratum.—In Dr. Blaauw's article entitled A Case of Congenital Ocular Defect (?), published in our issue for November 10th, page 802, first column, seventh line, for "conical astigmatism" read *corneal* astigmatism, and for the numeral 1, in the same line, substitute a vertical line.

The Superintendent of the Chicago Presbyterian Hospital Resigns.—Dr. Henry B. Stehman, for fifteen years medical superintendent of the Presbyterian Hospital, Chicago, has resigned because of ill-health.

Connecticut Doctor Seeks His Missing Son.—Dr. J. L. Gardner, of Central Village, Conn., has written to the police and newspapers of every large city to ask assistance in his search for his sixteen-year-old son, Judson Etheridge Gardner, who left his home on August 22d, and has not been heard from since. The boy was tall, and of very light complexion, with light hair. Dr. Gardner believes his son is in the West or South, if not in New York City, and especially appeals to all physicians, Odd Fellows and United Workmen to aid him in his search.

An American Doctor made a Fellow of the Royal College of Surgeons.—Dr. William S. Halsted, professor of surgery at the Johns Hopkins University, Baltimore, Md., has been elected a Fellow of the Royal College of Surgeons of England.

Small-pox.—Stories of epidemics of small-pox are coming in from all over the country, though none are of an alarming nature. At present the more virulent form of the disease is said to have made itself evident in Texas, Wisconsin and Tennessee. As a result of the conditions in Wisconsin the State board of health will make strenuous attempts before the legislature this winter to secure the passage of a bill providing for the compulsory vaccination of the citizens of the State.

The Local Scare over Small-pox seems to be on the increase, instead of abating, although it is a recognized fact that the epidemic is well under control and that the health board is fully able to cope with it. At latest accounts there were forty cases in the isolation hospital on North Brothers Island, and two new cases in the infected district on the west side of town. In spite of the public alarm over the matter there have been but two deaths recorded up to date, which is fairly good evidence that there is no real cause for panic. There is a great demand for vaccine virus, and the health board force is busy vaccinating all applicants free of charge. The wholesale vaccination has included tenement dwellers in entire districts and the entire force of street cleaners, about 3,000. The disease is alleged to have been brought to the city by members of a genuine negro show which has been forced to close its tour for the season in consequence.

Small-pox in Kings County Hospital.—A case of small-pox was discovered in the Kings County (Brooklyn) Hospital recently, the patient being a negro woman who had been in the institution since last May. As soon as the case was diagnosticated as small-pox, all the patients in the hospital, some 2,500 in number, were vaccinated.

Small-pox at Winona, Mich.—It is said that there are over 300 cases of small-pox in the city of Winona, Mich., but investigation has revealed that the disease is of but a mild character and the mortality only about two per cent.

Praise for American Surgeons.—In a recent lecture delivered in Paris, Dr. Pozzi paid a glowing tribute to American surgery, characterizing the surgeons of the United States as "scientifically audacious and brilliantly cool." He declared that many important surgical improvements were solely due to American discoverers, and made the startling statement that if the American treatment for appendicitis had been better known, Gambetta's life could have been saved. Pozzi is well known in the United States, which country he visited a few years ago.

A Physician Contests Congressional Election.—Dr. R. A. Wise, of Norfolk, Va., will contest the seat of Hon. H. L. Maynard, who was elected to Congress from the Second district of Virginia by a majority of not less than 4,500. Dr. Wise twice successfully contested the seat of Hon. W. A. Long. The doctor's contention will again be that he was "counted out."

A Generous Donor to Medical Charities.—General Frederick Ellsworth Mather, a well-known lawyer, who died on November 9th, was a prominent figure in medical charitable circles. He originated, and for more than twenty-five years was president of, the Demilt dispensary. He was an organizer of the Northeastern and Northwestern dispensaries, and was a life member of all three institutions. He was a member of the first board of trustees of Roosevelt Hospital, and served in that capacity for many years. He also gave much care to the Prison Association, the Association for Improving the Condition of the Poor, and the Sanitary Association.

Students Present Dr. Garbutt with a Purse.—The resignation of Dr. Victor L. Garbutt, house physician of the Emergency Hospital of Detroit, Mich., has been accepted. The students of the Michigan College of Medicine and Surgery have presented him with a substantial purse as a farewell offering. Dr. Garbutt's resignation was rendered imperative by the press of private practice.

Brooklyn German Hospital in Financial Difficulties.—The trustees of the German Hospital Society, of Brooklyn, have authorized the statement that the present financial status of the institution, at St. Nicholas Avenue and Stanhope Street, gives rise to grave apprehensions, and that steps will be taken in the near future to prevent a serious embarrassment. A public appeal has been advocated by some of the members, most of whom, however, seem to think a large fair or some similar enterprise a better means to raise funds.

St. Louis Academy of Medical and Surgical Sciences.—At a meeting of the St. Louis Academy of Medical and Surgical Sciences on November 27th papers were read on Notes on Chloroform Anæsthesia, by Dr. F. M. Floyd; Management of Abortion, by Dr. H. G. Nicks; and a presentation of pathologic specimens was made by several fellows of the academy.

Infection Carried by Mourning Garments.—One method by which infectious disease is distributed about a city was recently discovered in East Baltimore, Md. A young child died of diphtheria, and the mother, having no mourning clothes of her own, borrowed some from a friend. After the funeral the funeral garments were returned. A day or so afterward diphtheria developed in the family of the owner of the clothes.

Dr. Springer Appointed a Medical Examiner.—Dr. Frank L. Springer, of Wilmington, Del., has been appointed a member of the State board of medical examiners.

Pennsylvania Doctors Form a Union.—At a recent meeting of the Lackawanna, Pa., Medical Society the members determined to form a union. A systematic arrangement of fees will be established and a black list of all delinquent patients kept.

Medical Inspectors Request Salaries.—The medical inspectors of the public schools of Philadelphia are trying to induce the board of education to make the office a salaried instead of an honorary one. Ten dollars a month for each school inspection is the remuneration desired.

Trustees of the Flushing (L. I.) Hospital.—The annual meeting of the corporation of the Flushing Hospital was held at the hospital on November 14th and the following board of trustees was elected: Captain I. J. Merritt, Whitestone; Dr. J. F. Bloodgood, Flushing; Edward E. Sprague, Flushing; D. L. Van Nostrand, Little Neck, and William F. James, Flushing.

Osteopaths Defeated in Georgia.—The bill introduced in the senate of Georgia to put the practice of osteopathy on an equal footing with the regular medical practice was defeated after a hard fight. An amendment to allow the osteopaths to practise without any formal recognition by law was also defeated.

A Physician-Explorer Back in America.—Dr. A. Donaldson Smith, of Philadelphia, has just returned from his second exploring trip in Africa, during which he marched 3,000 miles into the interior. He had many adventures, and has brought home some interesting mementos of his journey.

A Meeting of the New York State Medical Alliance will be held at the New York Academy of Medicine on December 13th. Dr. Winfield S. Hall, A. M., M. D., Ph. D. (Leipzig), professor of physiology, Northwestern University Medical School, Chicago, will read a paper on Ethyl Alcohol: Its Biology, and its Relation to Physiology, to Pharmacology, and to Therapeutics. Among those who are expected to discuss the paper are Professor Conn, of Wesleyan University; Professor C. A. Herter, of the University and Bellevue Medical School; Professor Woodbury, of the Philadelphia Polyclinic and College for Graduates, formerly professor of materia medica and therapeutics in the Medico-Chirurgical College of Philadelphia, and others. Dr. Andrew H. Smith, president of the alliance, will preside.

Naval Intelligence.—*Official List of Changes in the Medical Corps of the United States Navy for the Week ending December 1, 1900:*

Burr, C. R., Assistant Surgeon. Ordered to the *Monongahela.*

McClanahan, R. K., Assistant Surgeon. Detached from the Navy Yard, Washington, and ordered to the *Indiana.*

Spear, R., Passed Assistant Surgeon. Detached from the Naval Hospital, New York, and ordered to the *Buffalo.*

Williams, R. B., Assistant Surgeon. Ordered to duty at the Naval Hospital, New York.

Army Intelligence.—*Official List of Changes in the Stations and Duties of Officers serving in the Medical Department, United States Army, from November 24 to December 1, 1900:*

Bushnell, George E., Major and Surgeon, United States Army, is relieved from duty in the office of the surgeon-general of the army and from further duty as a member of the examining board appointed by Par. 13, S. O. 269.

Frick, E. B., Captain and Assistant Surgeon, United States Army, will relieve Egan, P. R., Major and Surgeon, post of San Juan, Cuba.

Havard, Valery, Major and Surgeon, United States Army, can apply direct to the adjutant-general of the army for an extension of the leave granted him.

Potter, O. L., Major and Surgeon, United States Volunteers, is honorably discharged from the service of the United States, to take effect December 1, 1900.

Wadhams, S. H., First Lieutenant and Assistant Surgeon, United States Army, will, on the arrival of the transport *McClellan* at San Juan, Cuba, report for duty with troops designated for embarkation to the

United States. Upon arrival in the United States Lieutenant Wadhams is authorized to avail himself of leave.

Marine-Hospital Service Health Reports.—The following cases of small-pox, yellow fever, cholera, and plague, were reported to the surgeon-general during the week ending November 30, 1900:

Small-pox—United States.

Skaguay, Alaska	Nov. 24	1 case.	
Whitehorse, Alaska	Nov. 24	1 "	
Lexington, Ky	Nov. 17-24	1 "	
New Orleans, La	Nov. 17-24	1 "	
Detroit, Mich	Nov. 17-24	1 "	
Minneapolis, Minn	Nov. 17-24	3 cases.	
St. Joseph, Mo	Oct. 1-31	1 case.	
Omaha, Neb	Nov. 17-24	5 cases.	
Manchester, N. H	Nov. 17-24	3 "	
New York, N. Y	Nov. 17-24	1 case.	1 death.
Cleveland, Ohio	Nov. 17-24	23 cases.	
Pittsburgh, Pa	Nov. 17-24	3 "	
Steelton, Pa	Nov. 17-24	2 "	
Houston, Tex	Nov. 17-24	17 "	
Salt Lake City, Utah	Nov. 17-24	31 "	

Small-pox—Foreign.

Antwerp, Belgium	Nov. 3		1 "
Prague, Bohemia	Oct. 27—Nov. 3	19 "	
Nanaima, British Columbia	Nov. 23	12 "	
Guayaquil, Ecuador	Sept. 8-30		33 deaths.
Alexandria, Egypt	Nov. 5	1 case.	
Southampton, England	Nov. 3-10	3 cases.	
Paris, France	Nov. 3-10		11 "
Athens, Greece	Oct. 27—Nov. 3	3 "	
Gibraltar	Nov. 11	1 case.	
Calcutta, India	Oct. 20-27		1 death.
Madras, India	Oct. 20-27		3 deaths.
Naples, Italy	Nov. 14	5 cases.	1 death.
Mexico, Mexico	Nov. 4-11		1 "
Moscow, Russia	Oct. 27—Nov. 3	7 "	2 deaths.
Odessa, Russia	Nov. 3-10	16 "	7 "
St. Petersburg, Russia	Oct. 27—Nov. 3	7 "	1 death.
Warsaw, Russia	Oct. 27—Nov. 3		30 deaths.
Puerto Plata, San Domingo	Nov. 10-17		3 "
Glasgow, Scotland	Nov. 9-16	22 "	
Corunna, Spain	Nov. 3-10		1 death.

Yellow Fever.

Matanzas, Cuba	Nov. 19	3 "	
Vera Cruz, Mexico	Nov. 10-17	9 "	1 "

Cholera.

Bombay, India	Oct. 23-30		10 deaths.
Calcutta, India	Oct. 20-27		8 "
Madras, India	Oct. 20-27		13 "
Singapore, Straits Settlements	Sept. 22	1 case.	1 death.

Plague.

Hongkong, China	Oct. 15-22	3 cases.	3 deaths.
Alexandria, Egypt	Oct. 22-29	1 case.	
Bombay, India	Oct. 30		85 "
Calcutta, India	Oct. 20-27		7 "
Madras, India	Oct. 20-27		1 death.
Kobe, Japan	Nov. 2	2 cases.	
Osaka, Japan	Nov. 2	11 "	
Tamatave, Madagascar	Oct. 8-15	4 "	4 deaths.
Penang, Straits Settlements	Oct. 16		2 "

Marine-Hospital Service.—*Official List of the Changes of Stations and Duties of Commissioned and Non-commissioned Officers of the United States Marine-Hospital Service for the Seven Days ending November 29, 1900:*

BAILEY, W. C., Acting Assistant Surgeon. Granted leave of absence for three weeks from November 14th.

BILLINGS, W. C., Assistant Surgeon. To proceed to Clarksburg, West Virginia, for special temporary duty.

BROWN, F. L., Hospital Steward. Relieved from duty at Cape Charles Quarantine and directed to proceed to Boston and report to the medical officer in command for duty and assignment to quarers.

EAGER, J. M., Passed Assistant Surgeon. Relieved from duty at the port of Norfolk, Virginia; to take effect November 30, 1900.

EARLE, B. H., Assistant Surgeon. To proceed to Columbia River Quarantine, and report to the medical officer in command for duty.

HOBDY, W. C., Assistant Surgeon. Granted leave of absence for seven days from November 25th.

LLOYD, B. J., Assistant Surgeon. To proceed to San Francisco Quarantine and report to the medical officer in command for duty and assignment to quarters.

LONG, J. D., Assistant Surgeon. To proceed to Baltimore for temporary duty during the absence of Assistant Surgeon Billings.

MOORE, DUNLOP, Assistant Surgeon. To proceed to Port Townsend Quarantine and report to the medical officer in command for duty.

PIERCE, C. C., Assistant Surgeon. Relieved from duty at the Tortugas Quarantine Station and directed to proceed to Key West, Florida, and report to the medical officer in command for temporary duty.

STONER, J. B., Passed Assistant Surgeon. Bureau letter of November 20th, directing Passed Assistant Surgeon Stoner to assume temporary command of the service at Norfolk, Virginia, is amended, and he is directed to assume command of the service at Norfolk, relieving Passed Assistant Surgeon J. M. Eager.

THORNBURY, F. J., Assistant Surgeon. Granted leave of absence for four days.

Promotion.

COFER, L. E., Assistant Surgeon. Commissioned as Passed Assistant Surgeon.

Births, Marriages, and Deaths.

Married.

BRYAN—BIRCH.—In Washington, on Thursday, November 22d, Dr. Alfred Cookman Bryan and Miss Alice Edna Birch.

COCHRAN—MASON.—In Brooklyn, on Thursday, November 15th, Dr. John A. Cochran, of Flatbush, Long Island, and Miss May Belle Mason.

CONNER—HARRIS.—In New York, on Tuesday, November 27th, Dr. Lewis Atterbury Conner and Miss Emma Wilt Harris.

DE BRANGES DE BOURCIA—ATLEE.—In Philadelphia, on Thursday, November 22d, the Vicomte Louis de Branges de Bourcia and Miss Adèle Atlee, daughter of Dr. Walter F. Atlee.

DUDLEY—NICOLL.—In New York, on Thursday, November 22d, Mr. William M. Dudley and Miss Margaret Nicoll, daughter of Dr. Henry Denton Nicoll.

HUGHES—BISHOP.—In Dover, Delaware, on Wednesday, November 28th, Dr. Charles Avory Hughes, of Washington, and Miss Helen Bishop.

KELLY—MARCELLUS.—In South Butler, New York, on Sunday, November 11th, Dr. A. E. Kelly, of Alloway, New York, and Miss Maude Marcellus.

MORRISEY—FINNEGAN.—In Lima, New York, on Thursday, November 22d, Dr. J. A. Morrisey and Miss Minnie E. Finnegan.

NESTLER—RAYMOND.—In New York, on Wednesday, November 28th, Dr. J. P. Nestler, of New Rochelle, New York, and Miss Loretta Raymond.

ORBEN—COTTER.—In New York, on Wednesday, November 28th, Dr. Cornelius F. Orben and Miss Mary Frances Cotter.

Died.

BRIGHT.—In Richmond, Virginia, on Monday, November 19th, Dr. George H. Bright, in the sixty-fourth year of his age.

BROCK.—In Leavenworth, Kansas, on Monday, November 26th, Dr. J. W. Brock, formerly of the United States Army.

CARSON.—In Huntington, Indiana, on Sunday, November 25th, Dr. W. F. Carson, aged forty-seven years.

CLARK.—In Shamokin, Pennsylvania, on Friday, November 30th, Dr. Francis M. Clark, formerly of the United States Army.

DORSEY.—In Washington, on Tuesday, November 13th, Dr. Lloyd Dorsey, in the seventy-fourth year of his age.

HOPKINS.—In Montreal, Canada, on Saturday, December 1st, Dr. Frederick A. Hopkins, in the thirtieth year of his age.

LAWRENCE.—In Boston, on Saturday, November 17th, Dr. George L. Lawrence.

MOSELY.—In Alexandria, Louisiana, on Wednesday, November 14th, Dr. Benjamin T. Mosely, aged fifty-one years.

STEPHEN.—In Reading, Pennsylvania, on Tuesday, November 27th, Dr. Walker R. Stephen, in the forty-ninth year of his age.

STEVENSON.—In Cairo, Illinois, on Tuesday, November 20th, Dr. W. W. Stevenson, in the forty-eighth year of his age.

SWIFT.—In Topeka, Kansas, on Sunday, November 18th, Dr. S. P. Swift, aged seventy-eight years.

VOELCKER.—In San Antonio, Texas, on Saturday, November 17th, Dr. Edgar Voelcker, in the twenty-seventh year of his age.

Pith of Current Literature.

Journal of the American Medical Association, December 1, 1900.

Gastric Ulcer: Non-perforating Hæmorrhage. By Dr. William L. Rodman.—Five per cent. of the Germans suffer with gastric ulcer; the proportion is less in America. A perfect understanding is necessary between physician and surgeon in regard to this affection, and the one safe rule is to treat all cases in conjunction with a surgeon. These ulcers, occupying by preference the lesser curvature, the posterior wall, and the pyloric region, generally coexist with an anæmic state of the blood and with hyperchlorhydria. Gastric ulcer is about equally common during the four decades from twenty to sixty, but relatively more common between forty and sixty. A severe boring pain felt just below the xiphoid cartilage, also felt near the heads of the last two ribs, with tenderness over a very circumscribed area, are the symptoms. Vomiting, with an excess of hydrochloric acid two hours after eating, with a consequent relief of pain, is confirmatory, and occasional hæmatemesis or melæna renders the diagnosis practically certain. The mortality is about twenty-five per cent. One-half or three-fourths of all cases will be cured by four or five weeks' medical treatment. Chronicity may mean incipient carcinoma, and Hauser states that six per cent. develop into carcinomata. Excision is the ideal operation, but it is probably best to reserve such a procedure (the mortality is fifteen per cent.) for the very severe cases. To break up adhesions is hazardous and generally results in perforation. Gastroenterostomy will probably remain for a long time the most generally practised operation for open ulcer.

The author's tabulated cases—forty in number—will prove of interest.

The Diagnosis and Treatment of Cholelithiasis. By Dr. W. J. Means.—Early diagnosis is of the greatest importance. The general diagnostic symptoms may be primarily, pain, nausea, vomiting, jaundice, ashy-colored stools, high-colored urine, tenderness over the region of the liver, tumor, and nervous phenomena. Collectively, they establish the diagnosis. Separately, they may be found in other diseases of the biliary apparatus and surrounding viscera. Medicinal treatment includes preventive as well as curative procedures. Preventive includes the increasing of the watery constituents of the bile, thus rendering the flow more rapid, and, to accomplish this, proper exercise, with calomel, saline cathartics, mineral water drinks, and restricted diet should be prescribed. After gall-stones have formed, it is barely possible that large doses of olive oil, Carlsbad salts, phosphate of sodium, and calomel may be of use.

When trouble in the bile apparatus cannot be relieved by a course of medicine, operative intervention should be promptly decided upon. The preparation should be the same as for other abdominal work. The incision should begin half an inch below the eighth intercostal cartilage, along the free border of the rectus muscle, and should end at a point two inches above the umbilicus. Examine both bladder and ducts for calculi: then, aspirate the bladder if distended with bile; for, although normal bile does not necessarily produce peritonitis, it is not possible, in these cases, to determine the character of the contained fluid. Pack with gauze pads, leaving nothing exposed but the bladder, and incise the cyst to remove the stone. A spoon curette is the best instrument. Reunion should be effected by interrupted sutures, and a large drainage tube with no side openings should be used. Examine calculi for size and number of facets. Triangular facets indicate the presence of a number of other calculi; oval facets indicate the presence of a few. When it is impossible to remove a stone impacted in the cystic duct through the bladder, it is best to crush the stone and remove it piecemeal.

Cholecystectomy, with Special Reference to the Removal of the Mucous Membrane of the Gall-bladder as a Substitute. Report of a Case in which the Gall-bladder was Removed for Malignant Disease. By Dr. W. J. Mayo.

The Importance of Early Operations in Gall-stones. By Dr. Maurice H. Richardson.—The dangers of removing gall-stones by modern methods are trivial. The frequent association of malignant disease with gall-stones forms a potent argument in favor of early operation. Stones should be removed as soon as their presence is reasonably sure, unless the diseased condition of other viscera makes the hazard of the operation greater than the hazard of the gall-stones themselves.

Modern Empirical Inventions. By Dr. N. C. Morse.—This is an exposition of certain quack inventions that, to the disgust of those without a sense of humor, have met with a ready sale in many places.

Bacteriological Examinations of Otitis Media Purulenta and Suppurative Mastoiditis. By Dr. Talbot R. Chambers.

Tuberculosis of the Testicle, with Special Reference to its Conservative Treatment. By Dr. John B. Murphy (*continued*).—In every case of tuberculosis of the epididymis, single or double, epididymectomy, in the author's opinion, should be the operation of election, except where there are elsewhere extensive tuberculous lesions that will shortly terminate the patient's life, or where the greater part of the testis proper is already destroyed, or the scrotum riddled with discharging sinuses.

American Medical Journalism. By Dr. Charles Wood Fassett.

Medical Record, December 1, 1900.

Pernicious Anæmia and its Relation to Inheritance. By Dr. Charles L. Dana.—To this phase of the ætiology or pathology no one seems to have adverted hitherto. In the author's case, the patient was the thirteenth of fourteen children, all of whom were born dead except one brother next in age to himself, and who afterward died of pneumonia.

The factor of teratology is one of the most important and compelling in the explanation of progressive degenerative diseases of the human body. With respect to the ætiology of pernicious anæmia, the theory of atrophy of the gastric tubules is clearly inadequate, and has been abandoned. The theory of specific infection is still only a guess. All the degenerative diseases are apparently diseases of lysis, not of genesis. The full-grown cell is attacked, not the embryonal cells; and, in pernicious anæmia it is not the blood-making organs, but the formed blood, that is attacked. In cases in which a mother gives birth to a long series of still-born children, it has been found that some of those who finally survive have teratological defects. The author adheres to the view that makes pernicious anæmia a teratological defect, and hopes that his oblique illumination may at least start some inquiry in a new direction.

Gastroptosis. By Dr. George Roe Lockwood.—The author gives a number of cases, and considers the subject at some length. In the great majority of cases, no adequate cause can be found for this affection. Of itself, gastroptosis does not produce symptoms, but the displacement of the stomach is the predisposing cause of a variety of gastric neuroses, usually induced by some definite mental or physical strain. This displacement is also a strong exciting cause of muscular atony associated with a more or less profound neurasthenia, and a direct relation exists between the latter two conditions. Gastric acidity is increased in direct proportion to the atony, unless counteracted by gastritis, a mild degree of which is apt to occur. Atonic dilatation without mechanical hindrance is exceedingly rare. Inattention to the conditions of atony, of neuroses, and of gastric secretions has led, in a large number of cases, to an unsuitable insufficient diet which reacts both on general nutrition and on local conditions within the stomach. Surgical intervention is applicable only to the cases in which dilatation exists.

On the Analogy between the Nervous Conductibility and the Electric Conductibility, and their Relation to the Functional Neuroses. By Dr. A. D. Rockwell.—The author refers to the very interesting contrivance called the "coherer," an essential part of the outfit for wireless telegraphy. The theory explaining the sudden change of the coherer from a non-conductor to a conductor, is ingeniously used to show the relation of electric energy and shock to the nervous system. As iron becomes magnetized or heated by the application of force or heat, so the electric energy applied to the human body is not lost, but in its transformation tends in a single direction, the stimulation of the living molecule and the nourishment of the nerve centres. It calms the irritable cell and increases its activity when sluggish.

The Treatment of Typhoid Fever at the New York Hospital. By Dr. Frederick L. Keays.—Baths are given every three hours, after the temperature reaches 103° F. The bath is started at a temperature of 80° F. and diminished in the two or three following baths to 70° F. Moderate degrees of cyanosis or shivering are not considered contraindications. Warm milk is given and hot-water bottles placed at the feet, if the blueness and shivering continue. When tub baths are contraindicated, alcohol sponges are substituted for the baths, the alcohol being cooled by ice. A modification of this, is to have one person sprinkle the patient's body with alcohol, by means of a whisk broom, while another hastens evaporation with a fan.

Sodium bromide, from fifteen to thirty grains, phenacetine, and acetanilide are used to relieve the headache appearing in the first weeks of the disease. The ice cap is also used. Trional, from ten to twenty grains, given in hot milk is used as a mild hypnotic. Each patient is ordered a mouth wash, made by adding tincture of myrrh, one drachm, and sodium bicarbonate, thirty grains, to water, four ounces. This prevents such complications as parotitis and otitis media. Calomel and saline purgatives keep the bowels open in the early stages of the disease. When whiskey or brandy fail to hold the pulse, strychnine sulphate is used, and if still more stimulation is needed, digitalis is given. Bronchitis is disregarded unless it is extensive or troublesome, when the ordinary remedies are employed.

Milk is the routine diet. A little brandy or a few spoonfuls of coffee, or some malted milk, is added if plain milk is not acceptable. Kumyss or matzoön is substituted from time to time for variety. Patients who complain of hunger receive broths and beef juice, and when the temperature becomes normal, more active feeding is begun.

A Few Remarks Relative to Typhoid Feeding. By Dr. William M. Brown.—The author advocates the more liberal feeding of typhoid patients. The functions of digestion are attended by heat production, and proteids and carbohydrates giving the least number of heat units, while promoting the most effective digestive fluids, should be given. Milk unprepared is not a liquid food and will take as long to digest as many solid foods.

Medical News, December 1, 1900.

When shall we Operate in Appendicitis? By Dr. Frank A. Bunts.—The author believes that any case of appendicular inflammation can be operated upon at the beginning of an attack quite as successfully as, and often more successfully than, between attacks, for the reason that no one can positively state whether the patient will live through the present attack; and, because each succeeding attack, when completed, leaves the appendix, in consequence of adhesions, lymph deposits, and increased abnormal relations, in a more unfavorable condition for operation. It is folly to wait under any pretext in cases characterized by great urgency and intensity of symptoms. The author does not insist upon an operation between attacks, because: (1) the patient may never have another; (2) the next attack is readily recognized and the diagnosis made very early; (3) an immediate operation is practically as safe and as easy as one between attacks.

A Medical View of the Treatment of the Cæcum and Appendix. By Dr. A. L. Benedict.—Prompt and radical operation should be urged in all instances in which sepsis is the essential condition or the essential danger. On the other hand, mild cases of catarrhal appendicular inflammation, without peritonitis or more than superficial ulceration—in short, where the appendix is involved simply as a part of the cæcum—are amenable to medical treatment. Granting that the case is a proper one for medical treatment, our aim should be twofold: (1) to render the intestinal contents as unirritating as possible; (2) to protect and medicate the cæcum. Nutrition may be neglected in subacute attacks, and attention may be devoted exclusively to rendering the intestinal contents as scanty and as aseptic as possible. The bowels should be purged at the beginning of an attack. Oil of cloves, with or without small doses of atropine, may be used if there is griping. To combat the *Bacillus coli communis,* an internal antiseptic should be given. Salol and salacatol are excellent. Nourishment, when recommenced, should consist of toasted bread and soda-crackers, cereals, and milk. A temperature high enough even to suggest the use of antipyretics is an indication for surgical reconsideration of the case. This treatment is usually all that is necessary in a subacute attack.

Therapeutic Studies of Heroine Hydrochloride. By Dr. Benno Hyams.—The author considers that heroine hydrochloride is indicated in cough of all kinds, whatsoever the cause, in dyspnœa, and in all catarrhal inflammations of the mucous membrane, as well as in all cases in which morphine is contraindicated. In acute bronchitis, it is used with ipecacuanha; in chronic bronchitis, and in asthmatic conditions with iodide of potassium, it is of much value. In whooping cough, its combination with belladonna is palliative. In pulmonary tuberculosis, it is one of the best remedies with which to combat the cough, dyspnœa, and night-sweats. It can be used for long periods without dangerous sequelæ.

A New Operation for Hæmorrhoids. By Dr. Ellsworth Eliot, Jr.—The proposed plan of operation seems to be a good one. To those concerned with anal surgery the article will be of interest, and its perusal is commended.

A Plea for the Earlier Recognition of Squint in Children by the Family Physician and the Earlier Application of the Methods of Treatment. By Dr. C. A. Veasey.—This condition should not be put aside as something to be outgrown, but should receive at once the prompt attention it deserves.

The Treatment of Pneumonia with Antipneumococcic Serum. By Dr. Edwin Rosenthal.—This serum does not retain its action beyond three months under the most favorable conditions, and should consequently be used while comparatively fresh. Sufficient quantities should be used until results are obtained, whether this requires twenty cubic centimetres or twenty bottles of the remedy.

Septic Synovitis of the Knee Joint; Extensive Drainage, Followed by Excision of Entire Synovial Membrane; Recovery. By Dr. Charles A. Powers.

The Influence of Measles and Erysipelas upon Epilepsy, with Report of Cases. By Dr. L. Pierce Clark and Dr. E. A. Sharp.—In not one instance was the pre-existing epilepsy favorably modified for any great length of time, and in one case measles *caused* the status epilepticus.

Boston Medical and Surgical Journal, November 29, 1900.

Acute Hæmorrhagic Pancreatitis, its Surgical Treatment, with Report of Six Cases. By Dr. F. B. Lund.—Milder cases of acute pancreatitis or peripancreatitis recover both with and without operative intervention. Severer cases require operation, which should be performed early, for the following reasons: (1) because the primary hæmorrhage in itself leads to necrosis and disintegration of gland tissue, and the hæmorrhage may be stopped and further necrosis, both of fat and gland tissue, prevented by gauze packing and adequate drainage; (2) because the patient is in far better condition to withstand an operation early in the disease than later when weakened by suppuration in the lesser peritoneal cavity, and necrosis of much fat and gland tissue.

In a certain class of cases the primary shock is so severe as to render operation out of the question. The mortality of pancreatitis is high, but with early operation and adequate provision for lumbar drainage it may be considerably diminished. In the six illustrative cases, the patients were between thirty and fifty years of age, five of them were women and four had also gall-stones. Definite diagnosis was made in no case, the diagnosis being approximated three times. Operation in five cases. One recovery. One death two months after operation from inadequate drainage. Two deaths from shock. In one case, owing to the poor condition of the patient, the surgeon refused to operate.

Observations upon the Symptoms and Treatment of Hyperacidity of the Stomach. By Dr. Henry F. Hewes.—In from one-fourth to three-eighths of the cases, this affection may be diagnosticated with a fair amount of accuracy from the symptomatology of the text-books. In the remaining five-eighths, we must depend upon symptoms plus chemical findings. In the treatment, we aim to reduce the acidity of the contents, and to increase the resistance of the patient to the acid, that is, to improve the nutrition and nerve tone. To give proteid food substances which combine with large quantities of acid, and alkalies which neutralize the acid present, is a simple method, and works very satisfactorily in a large majority of cases. Nux vomica to improve the tone of the system, and, when anæmia is present by blood tests, iron, should be given. In very obstinate cases, lavage is of use. In these cases it is often necessary to feed small amounts frequently and to use concentrated food substances, which have a high capacity for combination with hydrochloric acid.

Subperiosteal Fractures. By Dr. Frederick J. Cotton.—As a result of some of the author's experiments, it would seem that blows are less likely than a slower acting strain to produce typical green-stick fractures, and even the soft bones of the new-born may be broken or cracked in clean-cut and approximately transverse-fracture lines by forces moderate enough to leave the periosteum intact. Fractures in children showing no deformity and no appreciable mobility are not uncommon; they may be readily overlooked; they often need no reduction, having no deformity; they repair with callus and quickly.

Irritable Breasts, or Chronic Lobular Mastitis. By Dr. R. C. Cabot.—The author brings up the question whether it is possible that a considerable number of these tumors exist and are not discovered, and if so, whether it is fair to call them mastitis. A respectable minority of writers believe that, out of these tumors, a cancerous process may develop. The accepted treatment is, iodide of potassium internally, acetate of lead ointment externally, and attention to the general condition of the patient.

Cyst of the Vocal Cord. By Dr. J. Payson Clark.—The sessile character and great firmness of the cyst in this case was, no doubt, due to its being rather deeply situated in the substance of the cord.

Philadelphia Medical Journal, December 1, 1900.

The Registration of Tuberculosis. By Dr. Hermann M. Biggs.—There has been a reduction in the mortality from tuberculous disease, in New York City since 1886, of more than thirty-five per cent., and the author has no hesitation in saying that with a complete and efficient scheme for dealing with pulmonary tuberculosis, including suitable hospital accommodation and the proper enforcement of precautionary measures, the death rate from tuberculous disease in New York City may be further reduced one-third within a period of five years. This would mean the saving of 3,000 lives annually. Notification is a logical necessity and a necessary preliminary to the adoption of other sanitary means for the prevention of this disease.

On the Study of Tuberculosis. By Dr. William Osler.—The author writes a very brief but interesting article upon this subject. The terrible ravages of the white plague are vividly portrayed, and a striking quotation from De Quincy is given, in which he compares the predestined victims of tuberculosis to the large trees of the forest marked with a white *blaze* as a sign of their fitness for the forester's axe.

Where the Danger Lies in Tuberculosis. By Miss Adelaide Dutcher.—This paper contains a report of the condition found upon visiting the homes of one hundred and ninety out-patients of the Johns Hopkins Hospital, suffering from tuberculosis. The patients, according to their social and domestic conditions, were divided into Russians, blacks and whites. The Russians were the most unsanitary, the whites the least so. The surroundings in all cases were extremely unsightly and the sputum of the victims covered the floors, walls and clothes. The author devoted her attention to giving a few simple instructions on the nature of the disease, the mode of its contagion, and methods of its prevention by the cultivation of habits of cleanliness, etc., and feels convinced that her visits have not been in vain. The need of such instruction will be only too manifest to the visitor to these centres of contagion.

The Early Diagnosis of Pulmonary Tuberculosis. By Dr. DeLancey Rochester.—With a few preliminary cases as a text, the author states the symptoms and signs upon which he places reliance as positive indications of pulmonary tuberculosis. These are the history of cough, or a present existing cough, with or without expectoration; a difference of a degree or more between the lowest and the highest temperature in the twenty-four hours; loss of strength or weight, or both; anæmia more or less pronounced; diminution or cessation of menstruation; the occurrence of night sweats, even though only occasionally; the history of, or the present existence of, enlarged lymph-glands in the neck; the persistence or development of cough after any of the acute infections.

Some Observations on the Occurrence, Early Diagnosis, and Treatment of Incipient Pulmonary Tuberculosis in Dispensary Practice. By Dr. Henry L. Shively.—The author finds encouragement in the intelligence and willingness with which most dispensary patients will carry out hygienic detail when properly instructed. There is a large and useful field for popular education and sanitary reform in our dispensary classes. Prevention, by means of widespread education, and improvement in the early detection of the disease, constitute our weapons in combating the disease.

Sanatorium Treatment and its Relation to Climate. By Dr. S. Edwin Solly.—The belief that a tuberculous patient is best cured in his own climate is a fallacy. There are certain economic reasons why home sanatoriums should be encouraged up to a certain point; but, where circumstances permit, it is best to change the air and locality of the consumptive for a time, and by so doing results are brought about much more rapidly and surely than if he remains at home.

A Case of Acute Tuberculosis of the Mesenteric Glands of the Ileocæcal Coil; Removal; Permanent Recovery. By Dr. Maurice H. Richardson.—In mesenteric tuberculosis, removal of the affected glands is indicated whenever their removal is technically possible.

Personal Views Regarding the Climate of the Rocky Mountains in the Treatment of Tuberculosis. By Dr. S. D. Van Meter.—"The West offers a salubrious, grand, and glorious climate."

On the Treatment of Tuberculosis by Sodium Cinnamate. By Dr. Alfred Mann.—The author believes that it will quicken to a marked extent the healing processes when they are sluggish or altogether inactive, in some, though not in all, of the cases.

Stomach Conditions in Early Tuberculosis. By Dr. Boardman Reed.—The secretion of hydrochloric acid is excessive, the peptic glands frequently being in a condition of irritability, which causes stimulant remedies of the creosote class to disagree and act injuriously. Cod-liver oil is likely to help those cases which are hurt by creosote, but it hurts the cases in which the gastric secretion is inactive. When analysis of the stomach contents cannot be made, it is safer to combine the creosote with the oil and let one neutralize the other in their influence upon the stomach. The motor function must be restored before a cure can be brought about.

The Fallacy of Climate in the Treatment of Tuberculosis. By Dr. J. W. Kime.

Operation in Two Cases of Tuberculous Peritonitis. By Dr. W. L. Grant.

Lupus Vulgaris of Fifteen Years' Standing Successfully Treated and Cured by Exposure to X-ray. By Dr. A. Everett Smith.

The Diseases of the Bronchial Glands. By Dr. J. N. Hall.

Colorado Climate: A Comparative Study. By Edwin G. Dexter, Ph. D.

Public Education and the Prevention of Disease. By Dr. N. L. Johnson.

Lancet, November 24, 1900.

Mental Disorders Dependent on Toxæmia. By Sir Dyce Duckworth.—The author calls attention to some phases of mental disorder which depend on toxæmic states, and are now distinguished by the alienist. The origin of the toxines is at least three-fold; they may be generated in the body (self-intoxicants), or by the malign working of microbes introduced from without, or they may arise by impregnation with organic poisons, or yet again result from the habits of alcoholism, chloralism, cocainism and morphinism. Inherited fault of brain tissue may, or may not, be present. The self-intoxications act in disturbing the harmony of intimate brain-cell metabolism. Where grave nervous or mental symptoms supervene in pneumonia and other acute febrile disorders, a history of a family neuropathic taint can almost always be obtained; the same is true of puerperal insanity. The insanity of lactation is probably due to debility and imperfect nutrition acting upon an originally unstable brain; post-operative insanity may be similarly classified. Gout, also, furnishes clear evidence of the influence of self-intoxication in the production of mental disorders. All forms of insanity may result from influenza, and, according to Sir John Turner, all acute mania is probably of toxic origin, the poison affecting wide areas of brain tissue. General paralysis is now regarded as coming into the category of self-intoxications, but syphilis, its common antecedent, does not provide the toxine; it leads to progressive degenerative nervous changes which set free the toxines from the tissues. Alcoholic and other excesses are the antecedents in other cases of general paralysis. Lead poisoning is the most frequent example of the impregnation of the system with certain organic poisons. In many of the cases, however, compound conditions must be dealt with, syphilis and alcoholism playing a part. The changes brought about in the tissues may almost be regarded as a formation of a chemical lead soap; a combination of neural fat with a saturnine base. The insoluble salts of uric acid and lead must also be borne in mind. The author believes that some cases of general paralysis may be due to lead poisoning. Alcohol is also an active destroyer of nervous matter and vascular textures, and the most varying conditions of mental aberration may be brought about. As regards alienation due to morphine, cocaine, etc., there is no doubt that the medical profession is partly to blame. The danger lies in the special seductiveness of such agents for women and persons with unstable brains. In brain diseases, the symptoms are not infrequently the result of mixed infections, and there is often a vicious circle of conditions; this is well seen in lead poisoning and alcoholism. Our views as to the pathogenic relations of toxæmic insanity would almost appear to justify a return to the older conceptions of humoral pathology—"neuro-humeral" as the author terms it.

Mouth-breathing and its Relation to Diseases of the Throat, Ear, Nose, and Accessory Cavities. By Mayo Collier, F. R. C. S.—Mouth-breathing is evidence that the physiological functions of the nose—the warming, the moistening, and the filtering of the air—are more or less in abeyance, and so lost to the respiratory function; and deficient nasal respiration means nasal obstruction in its wider sense. Long-continued mouth-breathing, even where the nose is healthy, begets more or less complete atrophy of the muscles and tissues of the external nose with collapse of the alæ, and gives a sharp and pointed expression to the features. So that mouth-breathing, if persisted in even in the hypothetical condition of a healthy and patent nose, would ultimately induce anterior nasal obstruction from atrophy following disuse of the nose valve. This would be followed by swelling of the lining membrane of the nose and accessory cavities from vascular dilatation, which again would lessen the capacity of the nasal respiratory tract and tend to set up nasal obstruction. A vicious circle is thus set up. Obstruction to nasal respiration may set up a rarefaction of the air contained in the frontal, ethmoidal, sphenoidal, or maxillary sinuses, and cause congestion of the lining membrane and a possible outpour of fluid and blockage of the natural vent, even though there is no previous disease or catarrh present. So that in diseased conditions of these sinuses, the first step in treatment is to see that there is a free inlet of air to the respiratory passages; this holds good in both the chronic and acute cases. Politzerization is of little value; a permanent and continuous air supply must be established. The association of mouth-breathing with high palate, a symmetrical upper jaw, prominent nose, open mouth, and thin, flattened face, is a constant one. A small increase in pressure from without, constantly applied to the walls of the nasal box, pushes up the palate, disarranges the mandibular arch, and causes general atrophy and an undeveloped condition of the whole upper jaw. If such cases are taken in an early stage and the nasal respiration restored, the constant stream of air passing through the nose moulds and expands the upper maxilla, and, in time, the greater part of the deformity will disappear. Further, the anæmia, loss of weight, and listlessness, of children with postnasal growths, is probably due to the want of proper oxidation at night. Remedy this and their return to health is usually prompt.

On Diphtheritic Paralysis. By Dr. E. F. Trevelyan. —The author gives the details of six cases of diphtheritic paralysis seen by him; after discussing the features of interest in each case, he takes up the questions of albuminuria and ataxia in diphtheritic paralysis, and the prognosis and treatment of this complication of diphtheria. Diphtheritic albuminuria has no other relation to diphtheritic paralysis than that both complications are more prone to occur where the diphtheritic intoxication is most intense. Ataxia was present in three of the six cases, which is not surprising, as diphtheritic paralysis is due to an affection of the peripheral nerves, and the association of ataxia in such affections, wherever found, is well recognized. The diagnosis of diphtheritic paralysis is difficult only in those cases where the nature of the sore-throat has been overlooked. The prognosis of the localized, and even of the generalized, forms is good, but that of the cardio-pulmonary form is bad and generally very bad. Other things being equal, the presence of albuminuria makes the prognosis more grave. The author believes that where liberal and early doses of antitoxine are used paralysis supervenes only in the severer cases. All authors are in accord as to the great value of rest in the treatment of diphtheritic paralysis. Other means are medicinal stimulation, electricity and massage.

The Diagnosis of Plague. By Dr. W. C. Hossack.—The author recognizes the following types of plague: (1) bubonic, (2) pneumonic, (3) septic, (4) intestinal, (5) meningeal, and (6) carbuncular. In all forms, the onset of the disease is almost invariably sudden. With the exception of cholera, no other disease produces so grave a general condition in so short a time. The appearance of the tongue is of considerable diagnostic importance; the dorsum is coated, while the edges, the tip, and the median raphé, remain pink and clean. The pulse is the most valuable factor in the diagnosis; it is invariably fast and out of proportion to the general condition of the patient. Intermittency is common and is a very fatal sign. Muscular inco-ordination is also very common, and of great value in diagnosis; the gait is staggering and drunken, and the speech thick, slow, and halting. Early onset of stupor or delirium is also very characteristic. Conjunctivitis is fairly constant; it is of value where the diagnosis must be made solely from the history. Recovery is generally by rapid lysis, rarely by crisis, the normal being reached from the fifth to the seventh day. The author then discusses the special characteristics of the various types of plague, as classified by him. Among the diseases likely to be confounded with plague are puerperal fever, septicæmia, pyæmia, small-pox, influenza, cerebrospinal meningitis, diphtheria, erysipelas, measles, syphilis, and mumps. Malaria and gonorrhœa have also been confused with plague. In making a bacteriological diagnosis, puncture of a gland should be avoided, lest a simple case be transformed into a septicæmic case. Postmortem cultures should be made within twenty-four hours after death. The bacillus is not to be found in the pus of a bubo.

Landry's Paralysis. By P. R. Griffiths, M. B.—The author reports a case of acute ascending paralysis occurring in a man, aged thirty-two years, a railway guard by occupation. The disease reached a fatal termination in three days, and very probably was the result of influenzal toxæmia. He had been ill with influenza for two weeks before the onset of the paralysis. The immediate cause of death was asphyxia.

Ichthyol and its Uses in some Skin Diseases. By Dr. A. Brownlie.—Ichthyol, internally or externally, is one of the most efficient agents for treating eczema in all its stages. The author cites four cases in which its use was attended with the greatest benefit to the patients. Five grains of ichthyol were given internally twice a day. In acne, whether *Acne vulgaris* or *Acne rosacea*, ichthyol is also particularly beneficial. Where the skin is very tender, the internal administration alone of ichthyol combined with steaming will often bring about a cure. From two- to five-per-cent. ichthyol applications are best in acute forms of inflamed skins, and from five- to ten-per-cent. strengths in more chronic conditions. Itching is not relieved so quickly as might be expected; certainly not so quickly as the pain, and often the itching is the last symptom to disappear. In prurigo and pruritus vulvæ or ani, ichthyol is of little service.

Fourteen and a Half Hours' Artificial Respiration in a Child One Week Old: Recovery. By G. E. Keith, M. B.—The author reports the case of a male child aged one week, upon whom the operation of circumcision was performed for long and tight foreskin. Chloroform was the anæsthetic used; the child did not breathe well, and lost more blood than usual. About fifteen hours later, the child became dyspnœic and cyanosed, and when seen was apparently dead. Under artificial respiration, breathing recommenced, to fail once more when the passive movements were stopped. The artificial respiration was continued for fourteen hours and a half, at the rate of twenty to the minute. Oxygen was used continuously, and heat was applied by means of a hot-water bottle. By the time normal respiration returned, the child's chest and upper abdomen resembled raw beef, and the arms were red and excoriated from the violent use to which they had been put. Recovery was very rapid. Twenty drops of brandy every hour were given and were well tolerated; a smaller amount seemed to cause a loss of ground on the part of the patient. The brandy was never noticeable on the breath; it was all used in the struggle for life.

Clinical Notes on the Results of a Pure Proteid Food in Fifty-five Cases (Various Diseases). By R. E. Williamson, M. B.—The author has used plasmon in fifty-five cases of various diseases, and finds it of the greatest value. Among the diseases were acute gastritis, chronic gastro-intestinal catarrh, gastric neurasthenia, anæmia, influenza and other acute febrile diseases, and various cachexias. In tuberculous diarrhœa it gave great relief, and in anæmia its reconstructive effect was marked. It seemed particularly good in neurasthenic cases and built up the nervous system. In the form of chocolate and biscuits it has been widely used by sportsmen and soldiers; it enables them to stand the longest day with less fatigue than formerly. It is practically tasteless and can be added to other foods without affecting their flavor. The author has been specially struck by the ease with which it is digested and the variety of media in which it can be used.

Estimation of Iron in Animal Organs. By P. A. E. Richards, F. L. C.—The author describes in detail his method for the quantitative determination of iron in human viscera. After removing the carbon by nitric acid and deflagration, the iron is dissolved out with hydrochloric acid. Potassium ferrocyanide solution, one per cent., is added to a given quantity of this solution, and the color of the resulting mixture is compared with that of a standard solution of iron and potassium ferrocyanide. A suitable standard solution is one containing 0.1 gramme of iron per litre. The results should be expressed in terms of the dry viscera.

Journal des praticiens, November 10, 1900.

Indications and Technique of Enucleation of the Eye. By M. Albert Terson.

Treatment of Acute Mucous and Dysenteric Colitis with Sulphate of Sodium.—M. M. Avirагnet reviews the various methods of treatment. His own method consists of rest in bed, a diet of milk and water, the application of hot wet compresses to allay the abdominal pain, reducing the frequency of the stools and allaying the rectal tenesmus by limited intestinal lavage with laudanum water, which he finds preferable to sedative suppositories. Extensive lavage he thinks harmful as it distends the diseased organ, provokes pain, and may increase the inflammatory process. The final purpose of treatment is to subdue the inflammation. This is best accomplished, says the author, by the administration of the sulphate of sodium. The first day from 150 to 225 grains are given, which dose is slightly purgative; the following days smaller doses are given, from thirty to seventy-five grains, according to the age of the child. The results have been remarkable in the author's hands, and although the treatment is not new, he desires to draw attention to it.

Indépendance médicale, November 14, 1900.

Preputial Operations.—M. Samuel Bernheim says that the prepuce may be the seat of a number of congenital or acquired malformations which, in children, may lead to masturbation or incontinence of urine, and in adults may interfere with sexual gratification or may favor the localization of infectious processes, chancre, chancroid, gonorrhœa, epithelioma or tuberculosis. They may even be responsible for sterility. If other measures, such as stripping back the prepuce, are ineffectual, circumcision will always give relief. It is an operation of hygienic and moral value. The author then describes his method of performing the operation, which is a modification of Ricord's. He is careful always to break up the preputial adhesions before making his incision.

Province médicale, November 10, 1900.

Prolapse of the Umbilical Cord.—M. Commandeur says that this accident causes a high fœtal mortality, about thirty per cent. The mechanism of the accident is not always the same. The cord may fall between the head and the pelvic wall when the head is engaged; or between the head or another fœtal part and the contracted or retracted ring of Baudl, when, the head not being engaged, an extensive bag of amniotic fluid fills the lower segment of the uterus, keeping the head away therefrom. The three principal means of attempting to save the child are: (1) manual reduction, which is difficult and leads to rupture of the membranes—it is impossible when the bag of membranes remains tight; (2) rapid manual dilatation followed by extraction—this is the operation of choice when the cervix and lower segment of the uterus are easily dilatable; (3) the use of the bags of Champetier de Ribes applied between the membranes and the uterine wall, when the cervix and inferior segment are not sufficiently prepared for rapid dilatation. This method hastens the delivery and mechanically reduces the cord.

Gazette hebdomadaire de médecine et de chirurgie, November 8, 1900.

Accidental Cardiac Murmurs in Little Children.—M. Carl Looft says that accidental murmurs over the heart can be heard not infrequently in children under three years of age. The diagnosis of organic disease of the heart must not be based solely upon the existence of a systolic murmur. Other signs must be present, such as accentuation of the second pulmonary sound, a thrill, propagation of the murmur, etc. Autopsy alone can positively disprove the diagnosis of an organic lesion based upon the existence of a murmur in a child in the first year of life.

Progrès médical, November 17, 1900.

Hysterical Astasia-abasia.—M. Terrien narrates the interesting case of a gardener, thirty-eight years of age, who for four years had walked upon his knees, elbows, and forearms. He was unable to stand without falling. His ancestry was neuropathic and rheumatic. The patellar reflexes were slightly exaggerated. There was a paresis of both forearms without sensory disturbance. The hysterical element was marked. The patient was instantly cured by hypnotism.

Presse médicale, November 10, 1900.

Purulent Pericarditis in Bright's Disease.—M. P. Oulmont and M. F. Ramond have experimented upon rabbits and dogs by tying the ureters, and, in other cases, additionally injecting pyogenic microbes. They find that uræmic conditions act upon the pericardium and produce an inflammation of this organ, and that it is rarely purulent experimentally; and they conclude that a purulent pericarditis in Bright's disease is the result, primarily, of circulating urea, and secondarily, of infection by intercurrent organisms.

Relations between Alopecia and Dental Lesions.—M. Jacquet found in forty persons suffering from alopecia, six with mediocre teeth, thirty-one with defective teeth, three only with perfect teeth. He believes that a close relation exists between alopecia and bad teeth or dental lesions, as both indicate an absence of some of the essential mineral salts in the body, especially the sulphates of sodium and potassium, the chloride of sodium and the phosphate of calcium.

Centralblatt für Gynäkologie, November 10, 1900.

Hand Disinfection with Alcoholic Soap.—Dr. F. Ahlfeld continues his controversy, attempting to prove in this paper that the active agent in alcoholic soap is the alcohol and that the results obtained are not comparable with his well-known method of hot water, soap, and gradual immersion in alcohol of varying strengths of from seventy to ninety-six per cent.

Disinfection of the Vagina.—Dr. F. Ahlfeld does not agree with Krönig that the carefully disinfected hand can infect the vagina by examination or even by a prolonged obstetric operation. He has made numerous experiments to prove his position.

Early Recognition of Ascites.—Professor L. Landau sums up a new diagnostic sign of the presence of free ascitic fluid in the abdomen. When the patient lies in the dorsal position, the bladder being empty, the fingers of the two hands cannot be approximated in the lateral fornices and the uterus at the same time feels as though it were lying on a water or air cushion. When the pelvis is elevated, however, the fluid approaches the diaphragm, the examination of the genitals is more easy, they can be distinctly palpated and the fingers can touch each other in the lateral fornices.

A Jointed Doll for Mannikin Instruction. By Dr. Ludwig Knapp.

Deutsche Medizinal-Zeitung, November 8, 1900.

Hyperemesis Gravidarum.—Dr. I. M. Lwow, in this instalment, narrates illustrative cases showing the reflex character of excessive vomiting during pregnancy. (*To be continued.*)

November 12, 1900.

Hyperemesis Gravidarum.—Dr. I. M. Lwow. (*Continued.*)

Hedonal.—Dr. S. Goldschmidt and Dr. Dittersdorf report that hedonal may be satisfactorily used in doses of thirty grains as a minimum, as a substitute for morphine or chloral taken for a long time for insomnia. It is a sedative hypnotic, its only disadvantage being its disagreeable taste. It is especially useful in neurasthenics and in persons with a slight rise of temperature, as the tuberculous. It appears to be less satisfactory in persons suffering from asthma and neuralgia.

Wiener medizinische Blätter, November 8, 1900.

Treatment of Infected Wounds (*concluded*). By M. Felix Lejars.

Early Diagnosis of Cancer of the Stomach.—Dr. W. S. Braun reviews the symptoms of cancer of the stomach in respect of diagnosis. The article contains nothing new.

Therapeutic Uses of Sozoiodol Preparations. By Dr. J. Segel.

Medicinische Woche, November 5, 1900.

Acid Treatment of Anæmia.—Dr. H. Rosin dwells upon the craving of most anæmic persons for acid fruits, and finds that his patients improve more rapidly when acid articles of diet are not only allowed but positively ordered. At the same time, he gives iron and arsenic, and advises exercise in the open air and sweat cures.

Medical Treatment of Toothache.—Dr. P. Ritter alludes to the fact that the physician is frequently called to see persons suffering from sudden affections of the teeth. For a periosteitis, he advises the careful cleansing of the cavity and the subsequent application of this anodyne mixture:

℞	Morphine sulphate..........	3½ grains;
	Cinnamon water............	2 drachms;
	Peppermint water...........	15 grains.

M. This to be applied to the painful tooth on cotton. If a pulpitis exists, the pain may be relieved by painting the skin with the following solution every two hours and covering it with cotton:

℞	Chloroform................	2 drachms;
	Balsam Peru................	1½ ounces.

M.

Deutsche Aerzte-Zeitung, November 1, 1900.

Medicinal Treatment of Pulmonary Tuberculosis.—Dr. Martin Mendelsohn says that there is no specific drug for the treatment of tuberculosis; yet in creosote we have a medicament which long experience has shown to be efficacious against many of the symptoms of the disease. Creosote and its derivative, guaiacol, are, however, oily substances, and thus offer some difficulties in administration, while they are simultaneously disagreeable to the patient. Thiocoll, a derivative of guaiacol, is crystalline, easily soluble in water, not poisonous, and is not disagreeable in taste or odor, and possesses all the good qualities of guaiacol in the pharmacodynamic sense. Under its use, the appetite becomes markedly improved, but it has no influence upon hæmoptyses. Cough and expectoration are diminished and night sweats are favorably influenced. The caustic and disagreeable effects of guaiacol are entirely lacking.

Birth after Vaginal and Ventral Fixation.—Dr. Lieber reports the case of a woman, forty-two years of age, who had had a vaginal fixation performed for a retroflexion, and who later gave birth to a normal child. Subsequently, the perinæum was found to be lacerated, the anterior vaginal wall prolapsed and the uterus again retroflexed. Ventral fixation and anterior and posterior colporrhaphy were then performed. In the next pregnancy the patient did not feel at all well—nausea and vomiting were almost constantly present. When labor set in, a prolapse of the arm occurred, the cervix lay high in the narrow vagina, and a version upon a dead child was done with the greatest difficulty. The author concludes by praising the Alexander operation as the one most nearly approaching the physiological when the birth act is considered.

Modern Views on the Pathogenesis and Theory of Gout. By Dr. W. Spitzer.

Berliner klinische Wochenschrift, October 29, 1900.

Vesical Calculi.—Dr. C. Posner discusses in detail the various theories, old and new, of the ætiology of vesical calculi, including diet, climate, the soil, and habits and diseases. The recognition of stone in the bladder has made great advances in recent years; methods of palpation have been perfected—especially in children; the examination by sounds is now a well-recognized measure, and cystoscopy has placed the diagnosis beyond doubt. The Röntgen rays can also be employed now for the recognition of calculi. (*To be continued.*)

Value of Schmidt's Methods for Testing Intestinal Function. By Dr. Hans Phillippsohn.

Rose's Diabetic Milk. By Dr. Sandmyer.

Four Cases of Ataxia. By Dr. Ricken.

Treatment of Callous, Resilient Strictures.—Dr. Lohnstein describes an apparatus, something similar to Bottini's, for the incision of resilient strictures which have been previously stretched as far as possible by means of sounds or bougies. He claims good results from the use of the instrument.

Centralblatt für Chirurgie, November 10, 1900.

Bending of the Neck of the Femur in Cases of Coxa Vara.—Dr. Carl Lavenstein has used the Röntgen rays to demonstrate the curvature of the neck of the femur in cases of coxa vara. His success has been marked, especially when a Röntgen ray picture of both sides has been simultaneously taken.

November 17, 1900.

Wire as Permanent Substitute for Bony Defects.—
—Dr. C. Hoffmann recommends the use of plastic wire as a prosthetic apparatus for permanently replacing defects in the bones. He has found it especially useful in defects of the jaw due to necrosis, and believes that half of an inferior maxilla can, if necessary, be so replaced.

Wire Network to Hold Movable Kidneys.—Professor O. Witzel says that if a network of fine wire is passed through the fibrous capsule of the kidney and of the previously shortened mesonephron, on the one side, and through the superficial fasciæ on the other side, the permanent result will be better than any other method of fixation of a movable kidney. He describes the technique of the operation.

Wiener klinische Wochenschrift, November 8, 1900.

Respiratory Abdominal Reflex.—Dr. Rudolf Schmidt reports a case of fibrinous pleurisy and perihepatitis in which, during deep inspiration, especially in the first few respirations, in costal as well as in diaphragmatic breathing, there was observed toward the end of inspiration, a lightning-like contraction of the upper portions of the right rectus muscle, extending as high as the fifth intercostal space. When the respiration was augmented and was of costal type, this reflex sign was increased in its intensity. The author finds an explanation in the activity of the reflexes generally and in the marked development of the recti so that the reflexly hardened muscle stood out distinctly.

Contribution to the Technics of Intestinal Anastomosis.—Dr. Hermann Hinterstoisser recommends the inclusion of the gut to be resected between two strong silk ligatures. The intestine between the ligatures is then incised, a circular suture is then applied while the assistant holds the two ends of the gut together; or an anastomosis is performed. This method is rapid and has proved to be safe.

Subcutaneous Tendon Rupture.—Dr. L. Kirchmayer says that the rupture of the extensors of the fingers over the joint of the terminal phalanges, is evoked by trauma which so acts upon the interphalangeal joint that the terminal phalanx is forcibly flexed. Usually, the tendon will be found to be degenerated in some way when it is torn alone, although great force may rupture a healthy tendon. The tearing out of the end phalanx together with its corresponding flexor tendon is typical of a pulling force suddenly or gradually exerted dorsally upon the terminal phalanx.

Klinisch-therapeutische Wochenschrift, November 11, 1900.

Cholelithiasis.—Dr. Nikolaus Rejchmann speaks of the employment of oil in cases in which calculi are already formed. He urges that the oil should always be fresh. Some patients cannot take large doses, others require it warmed, others demand that it be given in some vehicle, such as peppermint water, cognac, or lemon-juice. The operative treatment of inflamed biliary passages containing calculi is recommended, and the author states that calculi resting quietly in an uninflamed gall-bladder do not demand operation. (*To be continued.*)

Vibratory Massage of the Upper Respiratory Passages. By Dr. Michael Braun.

Cancer Treated by Cancroin Injections.—Professor Albert Adamhiewicz reports a number of successfully treated cases of abdominal cancer by means of subcutaneous injections of cancroin. The tumors disappeared, the patients lost their cachexia and their other symptoms and resumed their former occupations. The author says that the treatment shows the animal nature of cancer cells—agreeing with his theory—and that this procedure is a scientific one, which he believes capable of completely curing cancerous disease. He says that cancer is now as amenable to treatment by cancroin as syphilis is to mercury.

Riforma medica, November 8 and 9, 1900.

Queirolo-Landi's Method of Determining the Gastric Area and the Presence of Pyloric Insufficiency. By Dr. Lando Landi.—The method devised by Queirolo and Landi consists in representing the percussion sounds graphically, so as to show to the eye of the observer the slightest changes in the note obtained in a given place in the gastric region. For this purpose they employ a special apparatus, which transmits the vibrations of the percussion note to a Marey's tambour. The apparatus consists of an ordinary Faucher's sound, the ends of which are modified to suit the requirements of the work in hand. The gastric end has attached to it, by means of a silk ligature, a rubber bag with very thin walls; the external end is provided with a bifurcating tube to which are attached two rubber tubes. One of the latter is connected with a Marey's tambour, the other is provided with a stopcock and serves to inflate the rubber bag when necessary. The sound is introduced into the stomach with the bag in a collapsed condition, and then the bag is gently inflated with air through the tube. The gastric area is now percussed, and the vibrations are immediately communicated to Marey's tambour, set in motion the writing point, and produce a graphic expression on a revolving drum. It is also sufficient to use the writing point simply as an indicator, and not to trace the curve on the drum. The sound with the rubber bag is borne more easily by the patient than an ordinary stomach tube, except at the first introduction. The author describes the results obtained with this method of diagnosis by Italian and German observers.

Vratch, October 28, 1900 (November 9, N. S.).

On Blinding Transitions of Light in Artificial Illumination. A Hygienic Shade for the Working Lamp. By Dr. R. A. Katz.

Concerning the Absorption of Arsenic by the Tissues of the Liver in Chronic Arsenical Poisoning. By Dr. B. I. Slovtzoff.—The author's experiments enable him to state that in chronic arsenical poisoning the poison is absorbed by the liver, is taken up by the phosphorus-containing proteids of the tissues of this organ, and enters into chemical combination with the nuclein group. The resulting compound is so stable that it cannot be decomposed by alkalies, by dilute acids, or by the gastric juice. Hence arsenic acts in pathologic conditions of the liver in the same way as in the physiologic state, namely, it combines with the nuclein. For medicolegal purposes it is sufficient to digest portions of the liver in gastric juice; for in these circumstances the undissolved residue will contain all the arsenic.

A Case of Acute Yellow Atrophy of the Liver. Recovery. By Dr. S. I. Roudsky.—The patient was a woman, aged twenty-four years, who had been suffering from gastro-intestinal disturbances for nine days before admission. The onset was sudden, within one day there was sopor and coma. The woman was in the last week of pregnancy when admitted, and on the second day the labor set in, a dead fœtus being born. The liver was markedly diminished in size, but returned to normal as the condition of the patient improved. There were also enlargement of the spleen and the presence of leucin in the urine. The symptoms began to improve on the fourth day of the disease, two days after the labor, and the patient was discharged cured on the twenty-seventh day. According to Thierfelder, who collected about 200 cases of acute yellow atrophy, only two per cent. of patients recover from this disease, the prognosis being invariably stated as unfavorable. The author was able to increase this percentage to three or four, on the basis of a review of the statistics of the malady throughout the world. A favorable result has been observed in the most desperate cases, and one should not despair when the diagnosis of yellow atrophy is made. The treatment aims chiefly at furthering the elimination of toxines; hence cathartics, diuretics, and diaphoretics are indicated. In cases in which the great bulk of the toxines has already been eliminated by means of these remedies, infusion of saline solution may prove of value. Intestinal antiseptics should be given internally for the purpose of diminishing the formation of toxines in the intestines. Stimulants are also necessary in order to keep up the strength of the patient. The remainder of the treatment is symptomatic. Milk diet is indicated, and Quincke even considers milk as a curative measure in acute yellow atrophy of the liver.

Materials for the Study of the Functions of the Tonsils. By Dr. S. V. Mangouby.—In order to determine whether the inhalation of pyogenic germs is more injurious to animals without tonsil, the author removed these glands in a number of dogs, and placed these animals in boxes containing decomposing animal substances. A number of dogs with tonsils were also placed in these boxes for check purposes. Another series of experiments consisted in removing the tonsils of a set of animals, and then injecting diphtheria toxines into the blood of the dogs thus operated on. This was done under the supposition that the tonsils manufactured antitoxines against diphtheria and perhaps other infections, and it would be interesting to find out whether dogs whose tonsils had been removed were less resistant to diphtheria than those that retained the glands. In a third series of dogs the author removed the tonsils, sprayed the mouth and throat with the cultures of *Staphylococcus pyogenes aureus,* and injected diphtheria toxine, so as to imitate a case of mixed infection. He also examined the blood of the animals after removal of the tonsils, and found that after amydalotomy the number of white blood cells was considerably diminished, the hypoleucocytosis lasting for a variable period, in some instances as long as sixty-eight days after the operation. As a rule, the number of red cells was diminished. After injection of diphtheria toxine, and to a lesser degree after spraying with stapylococcus culture in dogs deprived of tonsils, the blood showed hyperleucocytosis, hypoerythrocytosis, and hypohæmoglobinæmia. The clinical picture observed in dogs deprived of tonsils and obliged to inhale putrid air consisted of diarrhœa, and sometimes vomiting, while the check-dogs never showed these symptoms. The injection of toxine was borne less well by dogs the subjects of amydalotomy than by those that retained the tonsils. The former had disturbances of the gastro-intestinal tract. In some, there was diarrhœa; in all, vomiting. The author concludes that the tonsils have a definite function. (a) They certainly bear an important relation toward the blood. (b) Their integrity is an important factor in the struggle of the organism against the invasion of germs through the mouth.

THE BOOKS OF THE YEAR.

THE PRINCIPAL MEDICAL BOOKS PUBLISHED IN THE UNITED STATES IN THE YEAR 1900.

Nearly all the medical books that have been issued by American publishers during the year, as well as many others of foreign production, have already been reviewed in our columns. These reviews, however, are scattered throughout the different numbers of the Journal for the entire year and are consequently not easily accessible to the reader. We feel confident, therefore, that our readers will find that the list which we have compiled below will be of great value as a guide to the selection of books for the library. In view of the fact that the majority of the books have already received review notice, we insert only occasional brief comments. For convenience of reference, the titles of the publishing houses are arranged alphabetically.

D. APPLETON & COMPANY,
New York.

BARKER.—THE NERVOUS SYSTEM AND ITS NEURONES. The Nervous System and its Constituent Neurones. Designed for the Use of Practitioners of Medicine and of Students of Medicine and Psychology. By LEWELLYS F. BARKER, M. B. (Tor.), Associate Professor of Anatomy in the Johns Hopkins University and Assistant Resident Pathologist to the Johns Hopkins Hospital. With two Colored Plates and 676 Illustrations in the Text. Cloth, $6.00.

This book has been written in the light of the revelations of the most recent investigations in neuropathology, and constitutes the most scientific and complete work on the subject ever published, and one of inestimable value to the practitioner and student of medicine. This work also has for the most part appeared in our columns, and we can commend it without qualification.

BERKLEY.—MENTAL DISEASES. A Treatise on Mental Diseases. Designed for the Use of Practitioners and Students of Medicine. By HENRY J. BERKLEY, M. D., Clinical Professor of Psychiatry, Johns Hopkins University, Baltimore, etc. 624 pages, 8vo, with Frontispiece, Lithographic Plates and Illustrations in the Text. Cloth, $5.00. Sold by subscription.

CULLEN.—CANCER OF THE UTERUS. Cancer of the Uterus: Its Pathology, Symptomatology, Diagnosis and Treatment. Also the Pathology of Diseases of the Endometrium. By THOMAS STEPHEN CULLEN, Associate Professor of Gynæcology in the Johns Hopkins University. Illustrated by MAX BRODEL and HERMANN BECKER. 8vo. About 700 pages. Over 300 Illustrations. Cloth, $7.50; half morocco, $8.50.

This work contains a complete history of the development of cancer of the uterus. Gives in detail the various pathological conditions that have to be differentiated from cancer, and deals fully with the newer methods of treatment. It embraces a careful examination of the pathological material from the Gynæcological Department of the Johns Hopkins Hospital for the last seven years.

The *Journal of the American Medical Association* says of this work: "This is a superb volume from the view-point of the maker of medical books, excellently, profusely, and always instructively illustrated. The figures showing the development and the structure of the various forms of carcinoma of the uterus are especially instructive and faithful reproductions. No less so are the illustrations of the numerous conditions and processes, including practically the whole range of uterine pathological histology that may be confounded with carcinoma. The large fields, the insertion of drawings of many of the gross specimens from which the sections were made, and the clear and full explanations are of great help in getting a clear idea of the subjects presented."

This magnificent work will shortly be made the subject of review in our columns.

SHURLY.—DISEASES OF THE NOSE AND THROAT. A Treatise on the Diseases of the Nose and Throat. By ERNEST L. SHURLY, M. D., Professor of Laryngology and Clinical Medicine in the Detroit College of Medicine; Laryngologist to Harper Hospital, to St. Mary's Hospital, and the Woman's Hospital; Consulting Physician to St. Luke's Hospital, Detroit, Mich.; Fellow of the American Laryngological Association, etc. 8vo. With Numerous Illustrations and Six Colored Plates. Cloth, $5.00; sheep, $6.00.

This work, eminently practical and free from statistical and theoretical details, is especially designed for the use of general practitioners and medical students. It is based upon the experience of a general practitioner who for many years as a teacher has given particular attention to the diagnosis and treatment of the forms of disease that are manifested in the nasal and laryngeal cavities. We shall soon give a review of this great work appropriate to its excellence and importance.

TAYLOR.—THE LAW IN ITS RELATIONS TO PHYSICIANS. By ARTHUR N. TAYLOR, LL. B., of the New York Bar. 12mo. Law cloth, pp. 560. Price $2.00.

The object of the work is to place within the reach of every physician a systematic treatment of those questions of law with which he is most frequently confronted in his practice as a physician. For the purpose of carrying out this object the work takes up and considers the general principles governing the many relations existing between the physician and patient, the physician and third parties, and the physician and the State, and illustrates the application of these principles by a more or less elaborate examination of the great volume of reported cases affecting or defining the rights and liabilities of physicians which have reached our higher courts. It is believed that this method of treatment will most effectually discover to the physician the latent dangers attending his practice and enable him to intelligently guard against them, and also disclose to him his rights and show him those steps best calculated to result in their enforcement. The greater part of this most useful book has already appeared in the *New York Medical Journal*, and we can only repeat the commendation we have already expressed in regard to it.

P. BLAKISTON'S SON & COMPANY,
Philadelphia.

ALLEN.—COMMERCIAL ORGANIC ANALYSIS. A Treatise on the Properties, Proximate Analytical Examination and Modes of Assaying the Various Organic Chemicals and Products Employed in the Arts, Manufactures, Medicine, etc., with Concise Methods for the Detection and Determination of Impurities, Adulterations, and Products of Decomposition, etc. Revised and Enlarged. By ALFRED H. ALLEN, F. C. S., Public Analyst for the West Riding of Yorkshire; Past President Society of Public Analysts of Great Britain. Vol. II, Part 2—Hydrocarbons, Mineral Oils, Lubricants, Asphalt, Benzene and Naphthalene, Phenols, Creosote, etc. Third Edition, Revised by Dr. HENRY LEFFMANN, with additions by the author. Cloth, $3.50, net. Vol. II, Part 1—Tannins, Dyes, Coloring Matters, and Writing Inks. Third Edition, Revised, Rewritten, and Enlarged by I. MERRITT MATTHEWS, Professor of Chemistry and Dyeing at the Philadelphia Textile School; Member American Chemical Society. Cloth, 4.50, net.

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The object of this book is to collect within a limited space and in a convenient form the essential facts in histology. At the same time the author has endeavored not to sacrifice clearness and intelligibility to the necessities of condensation. While specially designed for students, the work will be useful to practitioners who desire to acquire in a short time sufficient histology to enable them understandingly to read pathology.

LEVY, KLEMPERER AND ESHNER.—THE ELEMENTS OF CLINICAL BACTERIOLOGY. By Dr. ERNST LEVY and FELIX KLEMPERER, of the University of Strassburg. Translated and Edited by AUGUSTUS A. ESHNER, M. D., Professor of Clinical Medicine in the Philadelphia Polyclinic. Octavo, 440 pages, fully Illustrated. Cloth, $2.50, net.

This book represents an attempt to group the results of bacteriological investigation from a clinical point of view. Bacteriology has become more and more an indispensable aid to medical art. It has enlarged our comprehension of the nature of infectious diseases, and it has established their prophylaxis, diagnosis, and treatment upon a broader basis. The work aims to show how useful to the physician in his double capacity of counselor of the well and coadjutor of the sick are bacteriological thought and action. The following estimate of the work recently appeared in a review published in our columns: "The work of Levy and Klemperer has long been favorably known to all workers in bacteriology. It is a genuine pleasure to see it rendered into the language, for thus its usefulness will be manifestly increased. * * * It will do to say that the book is one with which every practitioner who desires to keep in touch with the advances of his profession should be familiar. The translation and the illustrations are beyond reproach."

MCFARLAND.—TEXT-BOOK UPON THE PATHOGENIC BACTERIA. By JOSEPH MCFARLAND, M. D., Professor of Pathology and Bacteriology in the Medico-Chirurgical College of Philadelphia, etc. Third Edition, increased in size by over 100 pages. Octavo volume of 621 pages, finely Illustrated. Cloth, $3.25, net.

Since this work first appeared, extensive progress has been made in the subjects of which it treats, making it necessary to increase the size of the book materially. The principal changes will be found where the advances have been most rapid, that is, under tuberculosis, diphtheria, tetanus, plague, etc. The article on Infection and Immunity has been entirely rewritten, many new chapters appear here and there, and much new matter has been added to the technics of bacteriology.

OGDEN.—CLINICAL EXAMINATION OF THE URINE AND URINARY DIAGNOSIS. A Clinical Guide for the use of Practitioners and Students of Medicine and Surgery. By J. BERGEN OGDEN, M. D., Instructor in Chemistry, Harvard Medical School. Handsome octavo, 425 pages, with 54 Illustrations and a number of Colored Plates. Cloth, $3.00, net.

The design of this work is to present in as concise a manner as possible the chemistry of the urine and its relation to physiologic processes; the most approved working methods, both qualitative and quantitative; the diagnosis of diseases and disturbances of the kidneys and urinary passages. In addition to chemical and microscopical methods, which have been described in detail, special attention has been paid to diagnosis, including our present knowledge of the character of the urine, the diagnosis and differentiation of diseases of the kidneys and urinary passages; an enumeration of the prominent clinical symptoms of each disease; and, finally, the peculiarities of the urine in certain general diseases of the body.

POWELL.—SAUNDERS'S POCKET FORMULARY. By WILLIAM M. POWELL, M. D., Attending Physician to the Mercer House for Invalid Women, at Atlantic City, N. J. Containing 1,844 Formulæ selected from the best known authorities. With an Appendix containing Posological Table, Formulæ and Doses for Hypodermic Medication, Poisons and their Antidotes, Diameters of the Female Pelvis and Fœtal Head, Obstetrical Table, Diet List for Various Diseases, Surgical Remembrancer, Tables of Incompatibles, Eruptive Fevers, Weights and Measures, etc. Sixth Edition, with over 200 New Formulæ. Handsomely bound in flexible morocco, with Side Index, Wallet and Flap. $2.00, net.

In referring to this volume the *Medical Record* says: "This little book, that can be conveniently carried in the pocket, contains an immense amount of material. It is very useful, and as the name of the author of each prescription is given, is unusually reliable."

PYLE.—A MANUAL OF PERSONAL HYGIENE. Proper Living Upon a Physiologic Basis. By American Authors. Edited by WALTER L. PYLE, M. D., Assistant Surgeon to Wills Eye Hospital, Philadelphia. Octavo, 350 pages. Profusely Illustrated. Cloth, $1.50, net.

The object of this manual is to set forth plainly the best means of developing and maintaining physical and mental vigor. It represents a thorough exposition of living upon a physiologic basis. There are chapters upon the hygiene of the digestive apparatus, the skin and its appendages, the vocal and respiratory apparatus, eye, ear, brain and nervous system, and a chapter upon exercise.

SALINGER AND KALTEYER.—MODERN MEDICINE. By JULIUS L. SALINGER, M. D., Demonstrator of Clinical Medicine, Jefferson Medical College, and F. J. KALTEYER, M. D., Assistant Demonstrator of Clinical Medicine, Jefferson Medical College. Handsome octavo volume of over 800 pages, fully Illustrated. Cloth, $4.00, net.

This is a work for students and practitioners in which internal medicine is considered in relation to ætiology, symptomatology, pathology, diagnosis, and treatment, especial prominence being given to practical methods in the examination of blood, sputum, gastric secretions, and urine, and to methods of physical diagnosis. The study of clinical medicine to-day embraces these special subjects, and it has been thought well to combine the essentials of these branches in a work on practical medicine. Another feature of the book is the large number of diagnostic tables, which will be of the utmost value to both students and practitioners. The matter represents the very latest approved knowledge in the various departments, the newest works in English, French, and German having been consulted throughout the preparation of the book.

SAUNDERS.—MEDICAL HAND-ATLASES. Two years ago Mr. Saunders contracted with the original publisher for 100,000 copies of the twenty-six volumes that are to compose the series known as *Saunders' Medical Hand-atlases.* Of these twenty-six volumes only ten have appeared, and yet 50,000 copies have already been imported.

The volumes in this series are said to be selling with remarkable rapidity, and there is every indication that over 100,000 copies will be sold of these ten volumes alone. Basing the sales of future numbers on those already issued, the prospects are that the original contract will be exceeded three times over, and that the sale of the complete series will reach at least 300,000 copies.

On account of the marked favor with which these books have been received by the medical profession, and the enormous sales that they seem destined to reach, the publisher has been enabled to prepare and furnish special additional colored plates, making the series even handsomer and more complete than was originally intended.

SCHAEFFER AND NORRIS.—ATLAS AND EPITOME OF GYNÆCOLOGY. By Dr. O. SCHAEFFER, of Heidelberg. From the Second Revised and Enlarged German Edition. Edited by RICHARD C. NORRIS, A. M., M. D., Gynæcologist to the Methodist Episcopal and Philadelphia Hospitals. With 207 Colored Illustrations on 90 Plates, 65 Text-illustrations, and 308 pages of text. Cloth, $3.50, net.

SCUDDER.—THE TREATMENT OF FRACTURES. By CHAS. L. SCUDDER, M. D., Assistant in Clinical and Operative Surgery, Harvard Medical School. Octavo, 433 pages, with nearly 600 beautiful Original Illustrations. Cloth, $4.50, net.

This is a practical book, intended for general practitioners and for students in medical schools and hospitals, the various methods of treating fractures being described in minute detail. The reader is not only told, but is *shown* how to apply apparatus. One of the special features of the book is the elaborate and complete series of illustrations, of which there are over 500, all from new and original drawings, and reproduced in the highest style of art.

SENN.—PATHOLOGY AND SURGICAL TREATMENT OF TUMORS. By N. SENN, M. D., Ph. D., LL. D., Professor of Surgery and of Clinical Surgery, Rush Medical College, Chicago. Second Edition, Thoroughly Revised. Octavo volume of 718 pages, with 478 Illustrations, including 12 full-page Plates in Colors. Prices: Cloth, $5.00, net; half morocco, $6.00, net.

In the present edition the text has been carefully revised and many additions have been made. A new section has been added on sarcoma of the decidua. Many of the old illustrations have been eliminated, and are replaced by others intended to explain more satisfactorily the subjects they represent. Most of the new illustrations are original.

STENGEL.—A TEXT-BOOK OF PATHOLOGY. By ALFRED STENGEL, M. D., Professor of Clinical Medicine in the University of Pennsylvania; Physician to the Philadelphia Hospital. Third Edition, Revised. Handsome octavo, 848 pages, with nearly 400 Illustrations, many of them in colors. Cloth, $5.00, net; half morocco, $6.00, net.

"This volume is intended to present the subject of pathology in as practical a form as possible, and more especially from the point of view of the 'clinical pathologist.' These objects have been faithfully carried out, and a valuable text-book is the result. We can most favorably recommend it to our readers as a thoroughly practical work on 'clinical pathology.'"—*The Lancet,* London.

STONEY.—SURGICAL TECHNIC FOR NURSES. By EMILY A. M. STONEY, late Superintendent of the Training School for Nurses, Carney Hospital, South Boston, Mass. 12mo, Illustrated. Cloth, $1.25, net.

This work is intended as a modern text-book of surgical nursing both in hospital and private practice. The matter in the book is presented in an attractive and practical form, and it will doubtless prove of distinct value to all nurses who are called upon to attend surgical cases.

THOMAS.—DIET LISTS AND SICK-ROOM DIETARY. By JEROME B. THOMAS, M. D., Visiting Physician to the Home for Friendless Women and Children and to the Newsboys' Home. Second Edition. Price, cloth, $1.25, net.

One hundred and sixty detachable (perforated) diet lists for albuminuria, anæmia and debility, constipation, diabetes, diarrhœa, dyspepsia, fevers, gout or uric-acid diathesis, obesity, and tuberculosis. Also forty detachable sheets of sick-room dietary, containing full instructions for preparation of easily digested foods necessary for invalids.

WARREN AND GOULD.—THE INTERNATIONAL TEXT-BOOK OF SURGERY. By American and British Authors. Edited by J. C. WARREN, M. D., Harvard, and A. PEARCE GOULD, M. S., F. R. C. S., of London, Eng. Vol. I, General Surgery; octavo, 947 pages, 458 Illustrations, 9 Lithographic Plates. Vol. II, Special or Regional Surgery; octavo, 1072 pages, 471 Illustrations, 8 Plates. Per volume: Cloth, $5.00, net; half morocco, $6.00, net.

In reviewing Volume II of this work in our issue for June 23d we said: "We have already spoken in highest terms of Volume I, and we feel fully justified in doing the same for this volume. It has been our pleasure of late to review a number of good surgeries, and we can safely say that nothing better has come to our notice, and few quite so good. We predict for the publishers a most successful return for their efforts."

WARREN.—SURGICAL PATHOLOGY AND THERAPEUTICS. By JOHN COLLINS WARREN, M. D., LL. D., Professor of Surgery, Harvard Medical School. Handsome octavo, 832 pages; 136 Relief and Lithographic Illustrations, 33 in colors; with an Appendix on Scientific Aids to Surgical Diagnosis, and a series of articles on Regional Bacteriology. Second Edition. Cloth, $5.00, net; half morocco, $6.00, net.

In reviewing this work the *Annals of Surgery* said: "A most striking and very excellent feature of this book is its illustrations. Without exception, from the point of accuracy and artistic merit, they are the best ever seen in a work of this kind. Many of those representing microscopic pictures are so perfect in their coloring and detail as almost to give the beholder the impression that he is looking down the barrel of a microscope at a well-mounted section."

E. B. TREAT & COMPANY,
New York.

Ayers.—Physical Diagnosis in Obstetrics. A Guide in Ante-partum, Partum, and Post-partum Examinations for the Use of Physicians and Undergraduates. By Edward A. Ayers, A. M., M. D. Illustrated. Cloth, $2.00, net.

Hamilton and Godkin.—A System of Legal Medicine. A Complete Work of Reference for Medical and Legal Practitioners. By Allan McLane Hamilton, M. D., and Lawrence Godkin, Esq. Second Edition. Revised, Enlarged. Two Volumes; cloth, $10.00; sheep, $12.00. Subscription.

This work is so well recognized as a standard that the revised edition will undoubtedly be given a cordial reception.

Purrington.—Christian Science. An Exposition of Mrs. Eddy's Wonderful Discovery, Including its Legal Aspects. A Plea for Children and other Helpless Sick. By William A. Purrington. Small 8vo. 194 pages. Cloth, $1.00.

In reviewing this work in a recent issue we expressed the opinion that Mr. Purrington's book will well repay a careful perusal by all physicians; and, should any such have a generally intelligent patient whose by no means blameable ignorance in the present state of public knowledge regarding matters of the human economy renders him or her fascinated by this specious charlatanry, he will probably find the author's book useful as an antidote as any to the poison, provided always that the patient is not too far gone. Where mental poisoning on the subject has, however, set in, no antidote will avail.

Sturgis.—Sexual Debility in Man. By Frederick R. Sturgis, M. D. Complete in one octavo volume. 436 pages. Illustrated. Cloth, $3.00, net.

The International Medical Annual, 1900. A Complete Work of Reference for Medical Practitioners, combining the features of an Annual Retrospect with those of a Medical Encyclopædia. Eighteenth Year. 8vo. 748 pages. Cloth, $3.00.

The International Medical Annual Synoptical Index to Remedies, Diseases and Treatment. 8vo. 412 pages. Cloth, $2.75.

WILLIAM WOOD & COMPANY,
New York.

Bradford and Lovett.—A Treatise on Orthopædic Surgery. By Edward H. Bradford, M. D., and Robert W. Lovett, M. D. Second Revised Edition. 8vo, 661 pages, 621 Illustrations. Price $4.50, net.

Broadbent.—Heart Disease, with Special Reference to Prognosis and Treatment. By Sir Wm. H. Broadbent, Bart., M. D., F. R. C. S., F. R. C. P., and John F. H. Broadbent, M.A., M.D., M.R.C.P. Second Edition. 8vo, 432 pages. Colored Plate and many Engravings. Price $4.00, net.

Buck.—Reference Handbook of the Medical Sciences. Volume I. Edited by Albert H. Buck, M. D. Revised Edition. To be completed in eight volumes. Imperial octavo, 809 pages, Illustrated by 498 Cuts and 12 Lithographic Plates. Price per volume, cloth binding, $7.00; sheep, $8.00; half morocco, $9.00.

The new edition of this great work will undoubtedly meet with the favor that the original issue deserved and received.

Cabot.—Physical Diagnosis of the Diseases of the Chest. By Richard C. Cabot, M. D. 8vo, 326 pages. 142 Illustrations. Price $2.50, net.

Cowen.—Electricity in Gynæcology. By Richard C. Cowen, L. R. C. S. L., L. R. C. P. I., etc. 8vo, 140 pages. Illustrated. Price $1.50, net.

Eccles.—Difficult Digestion Due to Displacements. By A. Simons Eccles, M. B. London. 8vo, 152 pages. Illustrated. Price $1.25, net.

Eccles.—Dictionary of Medical Terms. French-English. By A. Simons Eccles, M. B. London. Part II. Part I being English-French. 8vo, 248 pages. $1.75, net.

Einhorn.—Diseases of the Intestines. A Textbook for Practitioners and Students of Medicine. By Max Einhorn, M. D. Small 8vo, 408 pages. Illustrated. Price $3.00, net.

In reviewing this work we said that "Indeed, there can be only one opinion, that Einhorn has enriched us with a text-book which gives the present state of science relating to its subject, doing equal justice to English and German literature, a trustworthy aid for medical students and practitioners, written in concise and clear style.

Gillespie.—Manual of Modern Gastric Methods, Chemical, Physical, and Therapeutical. By A. Lockhart Gillespie, M. D., F. R. C. P. 8vo, Illustrated. $1.50, net.

In our review of this manual, which appeared last February, we wrote as follows: "This excellent little manual will be appreciated by any one taking interest in the latest developments of methods for gastric examination. The work also will be found invaluable to those of us who wish to make a scientific analysis of the stomach's contents."

Grünwald.—A Treatise on Nasal Suppuration; or, Suppurative Diseases of the Nose and its Accessory Sinuses. By L. Grünwald. Translated from the Second German Edition by Wm. Lamb, M. D., of Birmingham, England. One octavo volume, 347 pages. Illustrated by Engravings, Plates, and a Table. $3.00, net.

Ingals.—Diseases of the Chest, Nose, and Nasal Cavities. By E. Fletcher Ingals, A. M., M. D. Fourth Edition. Octavo, 787 pages. Illustrated by 254 Cuts and Colored Plate. Muslin, $4.50, net; sheep, $5.25, net.

Johnston.—Atlas of Skin and Venereal Diseases. By James C. Johnston. New Edition, with some new Plates, and Text entirely rewritten. Price $25.00. Sold by subscription.

KEYES AND CHETWOOD.—VENEREAL DISEASES, THEIR COMPLICATIONS AND SEQUELÆ. By EDWARD L. KEYES, A. M., M. D., and CHARLES H. CHETWOOD, M. D. Octavo, 364 pages, eight full-page Plates, and 107 Wood Engravings. Price $2.75, net.

We reviewed this work at some length in our issue for May 26th and gave expression to the following opinion concerning its value: "We should hardly have devoted so much space to this work if we had not considered it worthy of our serious attention. The busy practitioner will find it a useful and convenient guide for the better understanding of the subject."

KIRKES.—KIRKES'S HANDBOOK OF PHYSIOLOGY. Sixteenth American Edition. Thoroughly Revised by WARREN COLEMAN, M. D., and CHARLES L. DANA, M. D. Octavo, 840 pages. Illustrated with a Colored Plate and 516 Illustrations. Muslin, $3.00; leather, $3.75, net.

MAY.—MANUAL OF DISEASES OF THE EYE. By CHARLES H. MAY, M. D. 12mo, 410 pages. Illustrated by six full-page Plates and 243 Cuts. Price $2.00, net.

MEDICAL RECORD VISITING LIST; OR, PHYSICIAN'S DIARY, FOR 1901. Price, 30 patients per week, $1.25, net; 60 patients per week, $1.50, net.

MONTENEGRO.—BUBONIC PLAGUE. Its Course and Symptoms and Means of Prevention and Treatment, according to the Latest Scientific Discoveries. By JOSÉ VERDES MONTENEGRO. Translation by W. MUNRO, M. D. Octavo, 84 pages. Price $1.50, net.

MUNSON.—A MANUAL OF MILITARY HYGIENE. By CAPTAIN EDWARD L. MUNSON, Surgeon, U. S. Army. Octavo, about 800 pages. To be published in December.

PAGET.—EXPERIMENTS ON ANIMALS, with an Introduction by Lord Lester. By STEPHEN PAGET, M. D. 12mo, 286 pages. Price $2.50, net.

ROBSON.—DISEASES OF THE GALL BLADDER AND BILE DUCTS, INCLUDING GALL STONES. By A. W. MAYO ROBSON. Second Edition. Octavo, 313 pages, profusely Illustrated. $3.00, net.

ROSE AND CARLESS.—A MANUAL OF SURGERY FOR STUDENTS AND PRACTITIONERS. By WILLIAM ROSE, M. B., B. S., F. R. C. S., and ALBERT CARLESS, M. S., F. R. C. S Third Revised and Enlarged Edition. Octavo, 1190 pages, profusely Illustrated. Muslin, $5.00, net; leather, $5.75, net.

STEDMAN.—TWENTIETH CENTURY PRACTICE. An International Encyclopædia of Modern Medical Science. By Leading Authorities of Europe and America. Edited by THOMAS L. STEDMAN, M. D. Complete in 20 volumes. Volume XIX, 832 pages, Illustrated. Ditto, Volume XX, 913 pages, Illustrated. Price per volume, cloth, $5.00; sheep, $6.00; half morocco, $7.50, net.

The appearance of the concluding volume of this most excellent work before the twentieth century actually begins is creditable alike to the writers, the editor, and the publishers.

THOMSON.—AN INTRODUCTION TO THE DISEASES OF THE NERVOUS SYSTEM. By H. CAMPBELL THOMSON, M. D., M. R. C. P. Octavo, 131 pages, Illustrated. $1.00, net.

THOMSON.—THE CEREBROSPINAL FLUID; ITS SPONTANEOUS ESCAPE FROM THE NOSE. By ST. CLAIR THOMSON, M. D., M. R. C. P., F. R. C. S. Octavo, 147 pages. $1.50, net.

VALENTINE.—THE IRRIGATION TREATMENT OF GONORRHŒA; ITS LOCAL COMPLICATIONS AND SEQUELÆ. By FERD. C. VALENTINE, M. D. Octavo, 227 pages, profusely Illustrated. $2.00, net.

This book was reviewed by us on June 2d, and our opinion was as follows: "Dr. Valentine's work needs no indorsement; the author's past writings have established him as a master of his subject, and we can only express our pleasure in the perusal of such an instructive and attractive manual."

YONKERMAN.—VETERINARIAN'S VISITING LIST AND CALL BOOK FOR 1901. By D. P. YONKERMAN, D. V. S. $1.25, net.

The Treatment of Night Blindness by Ingestion of Liver.—Major W. J. Buchanan, of the Indian medical staff (*Journal of Tropical Medicine,* November), says that the affection known as night blindness is sufficiently common in all tropical regions to make a note on a very simple and effective method of treatment of interest. This method of treatment was first brought to his notice by Major F. P. Maynard, I. M. S., in the *Indian Medical Gazette* for June, 1900. The treatment by ingestion of liver is as old as Hippocrates; it is well known to the native practitioners of some parts of India, and it appears from the article by Professor Trantas, quoted in a recent number of the *Ophthalmic Review,* to be equally well known as a domestic remedy in Greece.

Major Buchanan has within the past few months treated some twenty cases of genuine night blindness with great *and immediate* success and calls the attention of practitioners in other parts of the tropics to it.

The treatment consists in giving about eight ounces of liver (goat, sheep, or ox), fried in oil, and with spices, daily for a few days. Generally, he says, it will be found that five or six days is sufficient to effect a cure, but he has usually continued it for at least a week. Even so soon as the second day some improvement will be noted, and the cure is usually complete by the seventh day. He has never given any other form of treatment with the liver. While cases of night blindness have a tendency to get well of themselves in the course of time, under what is called tonic treatment and ordinary dieting they will not be even improved under two or three months. When Major Buchanan first commenced the liver treatment the results were so immediate and so satisfactory that he became skeptical of the reality of the previous complaint, and he wrote to several friends in India to try it, with the result that in every case in the course of a few weeks he got letters reporting equally satisfactory results. He has not yet had a single failure with it, or any relapse on cessation of the treatment. In all his cases he took special trouble to make sure that they were genuine before putting them on the treatment.

Reference is made, not to night blindness due to *retinitis pigmentosa,* a rare disease, but to the common form so often found in malarial or scorbutic cachexias.

Major Buchanan is trying to manufacture a glycerin extract of liver. He has been told that cod-liver oil with a few minims of turpentine acts in like fashion. It is thought that the liver acts after the fashion of thyreoid and suprarenal extracts and other substances used in organotherapy.

Book Notices.

Atlas der topographischen Anatomie des Menschen. Für Studirende und Aerzte. Von Dr. Karl von Bardeleben, Professor an der Universität Jena, und Professor Dr. Heinrich Haeckel, Chefarzt des Krankenhauses Bethanien in Stettin. Zweite völlig umgearbeitete und vermehrte Auflage. Enthaltend 176 grösstentheils mehrfarbige Holzchnitte, 1 lithogr. Doppeltafel und erläuternden Text. Herausgegeben unter Mitwirkung von Dr. Fritz Frohse, Volontärassistant an der anatomischen Anstalt in Berlin. Mit Beiträge von Professor Dr. Theodor Ziehen. Fünftes bis siebentes Tausend. Jena: Gustav Fischer, 1900.

We have rarely seen more beautiful plates than those that adorn this elaborate volume on human topographical anatomy. They are mainly woodcuts, but their fine execution and their impression in colors, give them the appearance of steel engravings. The entire body is considered in this single volume and accompanying each plate is an explanatory text. The fact that this is the second edition testifies to the reception which the book has previously encountered.

Traité de chirurgie clinique et opératoire. Publié sous la direction de MM. A. le Dentu, Professeur de clinique chirurgicale à la Faculté de médecine de Paris, et Pierre Delbet, Professeur agrégé à la Faculté de médecine de Paris. Tome neuvième. Vessie, urètre, prostate, pénis, enveloppes du testicule. Par MM. Félix Legueu, J. Albarran, Pierre Sebileau. Avec 245 figures intercalées dans le texte. Paris: J.-B. Baillière et fils, 1900. Pp. ix-1 to 955.

This volume is a valuable addition to any surgical library. It is classical in style; it is filled with material abreast of the times, and its subject matter is handled in a methodical, progressive, judicial manner that is refreshing in this day of catch-penny systems and padded journals.

The plan of the book is first to devote some time to the consideration of symptoms in general, noting, in the case of each symptom, its pathological foundations and its value in making a diagnosis, emphasizing the facts that any one symptom may be due to many causes, and that only by judicial consideration of the complex of symptoms can one hope to arrive at a correct diagnosis and method of treatment. Clear directions are also given as to the best methods of eliciting information in the physical examination of the parts under consideration.

Perhaps the most pleasing feature of the work is the judicial temperament exhibited in handling the subject of treatment. The most approved methods of treatment up to date are sufficiently detailed, and then the relative advantages and disadvantages of each, with the author's preferences, are concisely stated. Too often, books describe many and very different methods of treatment and leave the reader to choose for himself unaided by any indications from the author's experience.

Another strong feature of the book is the complete bibliography, which is so disposed in footnotes as not to interrupt the progress of the reading.

One fails to see why the kidney and ureter are not considered in this volume, which includes all the rest of the genito-urinary system. Their absence certainly renders the volume incomplete.

A Short Practice of Gynæcology. By Henry Jellett, B. A., M. D., B. Ch., B. A. O. (Dublin University), F. R. C. P. I., L. M., University Examiner in Midwifery and Gynæcology, Dublin University, etc. With 125 Illustrations. London: J. & A. Churchill. Philadelphia: P. Blakiston's Son & Company, 1900. Pp. xiii-436. [Price, $2.63.]

As its title indicates, this is a condensed work on practical gynæcology. The book reflects the teaching of the Rotunda Hospital, Dublin. In reading its pages, one cannot but be impressed by the soundness of much of its reasoning and conclusions. Yet one wonders why an abbreviated work on this subject which forbids the appearance of the author's individuality, should have been published. While it offers an unquestionably good *résumé* of the practical or working side of gynæcology, it is devoid, naturally, of theoretical considerations and of those touches upon methods which stamp a more exhaustive work. We believe that, for a practitioner who is theoretically acquainted with gynæcological technics, and for the specialist who wishes to inform himself on Dublin methods, this is an excellent, as it is a highly readable, book. To the student, it can scarcely be of value.

Die Krankheiten der warmen Länder. Ein Handbuch für Aerzte. Von Dr. B. Scheube, fürstl. Physikus und Sanitätsrath in Greiz, etc. Zweite umgearbeitete Auflage. Mit 5 geogr. Karten, 7 Tafeln und 39 Abbildungen im Text. Jena: Gustav Fischer, 1900. Pp. viii-661.

The second edition of this work on tropical medicine contains 200 pages more than its predecessor, twelve additional chapters on newly discovered or freshly described tropical diseases, four excellent maps showing the distribution of various diseases, and a number of original photographs of patients suffering from ailments which can be well depicted by this means.

The new material embraces chapters on climatic buboes, Peruvian verruga, pellage, lathyrism, atriplicism, snake-poisoning, kubisagari, the parasitic disease *Pentastoma constrictum* described by von Siebold, craw-craw and venereal granuloma. The older chapters which have been especially elaborated are those on the plague and malaria. The author accepts the mosquito theory of the propagation of the latter disease but does not believe that this mode of transmission alone accounts for all cases. He cites the fact that the eruption of virgin soil is frequently accompanied or followed by endemic malarial fever. The author has usually been successful in discovering Laveran's organism in his malarial cases.

This work, being a scientific and well-written compendium of tropical diseases, is especially timely now that our national interests are largely concerned in countries where tropical diseases abound. Every student of internal medicine who is interested in medical progress and who can read German, should possess himself of Scheube's book, which is a most complete work on its subject.

Practical Gynæcology. A Comprehensive Text-book for Students and Physicians. By E. E. Montgomery, M. D., Professor of Gynæcology, Jefferson Medical College, Philadelphia, etc. With Five Hundred and Twenty-seven Illustrations, nearly all of which have been Drawn and Engraved Specially for this Work, for the most part from Original Sources. Philadelphia: P. Blakiston's Son & Company, 1900. Pp. xxviii-17 to 819. [Price, $5.]

If the author of this elaborate work needed an excuse for producing it, it is found in the practical teaching, the call to thoroughness in examination and diagnostication, and the logical manner in which each branch of the subject is considered by itself and in relation to other diseases, genital and general. An historical introduction is followed by elaborate sections on diagnosis and methods of pelvic and abdominal examination. Not quite enough space is devoted, we think, to a description of methods of examination of the urethra, bladder and ureters, methods which are daily coming more and more into use. In the discussion of tents as dilators, the author gives the details of their use, but neither praises nor condemns them. The chapter on abdominal examination, as well as the succeeding one on therapeutic measures, is above reproach. Excellent sections appear on post-operative treatment, in which this important element is thoroughly detailed, and in this respect the book gives evidence of its practical character and of its advance above other similar works.

Malformations of the female genital tract are accorded considerable space and they are well handled, the embryological features being emphasized. Inflammation is next considered, the acute and chronic inflammatory processes of the female pelvic contents and urinary apparatus being discussed in detail. Throughout this section, the prophylactic treatment of inflammations is emphasized. We note with pleasure the advocacy of cold douches for stimulation in chronic metritis; there are few men who have the courage to recommend these. Under the treatment of ectopic gestation, each phase of the condition is considered, but we wish heartily that the author had condemned more vigorously the morphine and electrical treatment of an unruptured tubal pregnancy, mainly because his description of the technique of these measures may lead some one of little experience to attempt them; for Dr. Montgomery himself states that the method fraught with least danger is "thorough surgical manipulation." The author states erroneously that "if the patient has full term, the death of the fœtus has occurred" (p. 517); this is not always the case.

Lengthy chapters on genital and ovarian tumors conclude the book. The relative advantages and disadvantages of vaginal and abdominal hysterectomy and their mortalities are discussed. A good feature of the description of operations lies in the tracing of the evolution of each operation. The histo-pathology of tumors is carefully gone into and the subject of diagnosis is emphasized.

In all respects this is a worthy work on gynæcology. It reflects an unquestionably large experience and is evidently the well-digested, well-considered outcome of a practical mind. It is a book which can be read with profit by the specialist, and deserves to be closely studied by the practitioner and student. The illustrations are excellent, many of them original, and they elucidate the text admirably.

Dunglison's Dictionary of Medical Science. Containing a full explanation of the various subjects and terms of Anatomy, Physiology, Medical Chemistry, Pharmacy, Pharmacology, Therapeutics, Medicine, Hygiene, Dietetics, Pathology, Bacteriology, Surgery, Ophthalmology, Otology, Laryngology, Dermatology, Gynæcology, Obstetrics, Pædiatrics, Medical Jurisprudence, Dentistry, Veterinary Science, etc. By Robley Dunglison, M. D., LL. D., Late Professor of Institutes of Medicine and Medical Jurisprudence in Jefferson Medical College, of Philadelphia. Twenty-second edition, with appendix, thoroughly revised, and greatly enlarged and with the pronunciation, accentuation, and derivation of the terms. By Richard J. Dunglison, A. M., M. D. Cloth, $7.00 net; full leather, $8.00 net. Philadelphia and New York: Lea Brothers & Co., 1900.

The fact that this volume has reached its twenty-second edition speaks sufficiently well for what it has been. The present edition is edited by Dr. Richard J. Dunglison, and is brought well up to date. As a medium-sized dictionary, sufficiently exhaustive for the student, and yet handy enough for the practitioner, it is highly satisfactory. Its scope has been so far enlarged that not only the physician, but also the dentist and the veterinarian will find in its pages most of what they need. The references are full and complete, the definitions lucid and self-explanatory, and preference, we are glad to see, is given to etymological spelling, while no legitimate variant is neglected. A very simple form of phonetics gives a clue to the proper pronunciation of the terms. There is an appendix containing some fifteen thousand of the more recent additions to the nomenclature of medicine and the allied sciences. Reference is made easy by a thumb index. The typography is excellent. It is an accurate, sufficient, and above all, a scholarly work, and one to which, in the short time that it has been in our possession, we have made constant reference, always with a sense of solid satisfaction at the result.

Practical Manual of Diseases of Women and Uterine Therapeutics. For Students and Practitioners. By H. Macnaughton-Jones, M. D., M. Ch., Master of Obstetrics (Honoris Causa), Royal University of Ireland, etc. Eighth Edition, Revised and Enlarged. With 640 Illustrations and 28 Plates. New York: William Wood & Company, 1900. Pp. xxx-947.

The eighth edition of this standard work finds it fully abreast of modern gynæcology. The author has rewritten large portions of the book. Notable among the changes are the complete chapter on ectopic gestation—in which the author without hesitation recommends abdominal section as soon as the diagnosis is made—and the chapter on examination of the urethra, bladder and ureters, in which Kelly figures largely. There are also new chapters on myomectomy and hysterectomy, and the whole subject of uterine cancer has been recast. The present edition may be said to be fully abreast of modern ideas and will, beyond doubt, maintain the high position it has long held. We note a large number of new illustrations, some of them original, others borrowed from well-known works.

A Book of Detachable Diet Lists. For Albuminuria, Anæmia and Debility, Constipation, Diabetes, Diarrhœa, Dyspepsia, Fevers, Gout or Uric-acid Diathesis, Obesity, Tuberculosis, and a Sick-room Dietary. Compiled by Jerome B. Thomas, Jr., A. B., M. D., Instructor in Materia Medica, Long Island College Hospital, etc. Second Edition, Revised. Philadelphia: W. B. Saunders, 1900. [Price, $1.25.]

This is a conveniently arranged and quite complete diet list for patients suffering from albuminuria, anæmia and debility, constipation, diabetes, diarrhœa, dyspepsia, fevers, gout, obesity and tuberculosis. Each list is detachable. As an appendix, a sick-room dietary and directions for rectal alimentation are added. The book is handsomely printed and should have, as it deserves, a very large field of usefulness.

BOOKS, ETC., RECEIVED.

Pathology and Morbid Anatomy. By T. Henry Green, M. D., F. R. C. P., Physician and Special Lecturer on Clinical Medicine at Charing Cross Hospital, etc. Revised and Enlarged by H. Montague Murray, M. D., F. R. C. P., Lecturer on Pathology and Morbid Anatomy at Charing Cross Hospital. Ninth American revised from the Ninth English Edition by Walton Martin, Ph. B., M. D., Assistant Demonstrator of Anatomy, College of Physicians and Surgeons, Columbia University, etc. With 4 Colored Plates and 339 Illustrations. Philadelphia and New York: Lea Brothers & Company, 1900. Pp. 2-17 to 585.

Sexual Debility in Man. By F. R. Sturgis, M. D., Formerly Clinical Professor of Venereal Diseases in the Medical Department of the University of the City of New York, etc. New York: E. B. Treat & Company, 1900. Pp. 14 to 432. [Price, $3.]

A Text-book of Histology, including Microscopic Technique. By A. A. Böhm, M. D., and M. von Davidoff, M. D., of the Anatomical Institute in Munich. Edited with Extensive Additions to both Text and Illustrations by G. Carl Huber, M. D., Junior Professor of Anatomy and Director of the Histological Laboratory, University of Michigan. Authorized Translation from the Second Revised German Edition by Herbert H. Cushing, M. D., Demonstrator of Histology and Embryology, Jefferson Medical College, Philadelphia. With 351 Illustrations. Philadelphia: W. B. Saunders & Company, 1900. Pp. 7 to 501. [Price, $3.50.]

The Practice of Medicine. A Text-book for Practitioners and Students, with Special Reference to Diagnosis and Treatment. By James Tyson, M. D., Professor of Medicine in the University of Pennsylvania and Physician to the Hospital of the University, etc. Second Edition, thoroughly Revised and in Parts Rewritten. With 127 Illustrations, including Colored Plates. Philadelphia: P. Blakiston's Son & Company, 1900. Pp. xvii-17 to 1222. [Price, $5.50.]

Manual of Pathology, including Bacteriology, the Technique of Post-mortems, and Methods of Pathologic Research. By W. M. Late Coplin, M. D., Professor of Pathology and Bacteriology, Jefferson Medical College, Philadelphia, etc. Third Edition, Revised and Enlarged. With Three Hundred and Thirty Illustrations and Seven Colored Plates, many of which are Original. Philadelphia: P. Blakiston's Son & Company, 1900. [Price, $3.50.]

Therapeutics: Its Principles and Practice. By Horatio C. Wood, M. D., LL. D. (Lafayette-Yale), Professor of Materia Medica and Therapeutics, and Clinical Professor of Diseases of the Nervous System, in the University of Pennsylvania, etc. Eleventh Edition. Remodelled and in greater Part Rewritten by Horatio C. Wood and Horatio C. Wood, Jr., M. D., Demonstrator of Pharmacodynamics in the University of Pennsylvania. Philadelphia and London: J. B. Lippincott Company, 1900. Pp. xxxi-850.

Appendicitis and its Surgical Treatment, with a Report of One Hundred and Eighty-five Operated Cases. By Herman Mynter, M. D. (Copenhagen), Professor of Clinical Surgery in the University of Buffalo. Third Revised Edition. Philadelphia and London: J. B. Lippincott Company, 1900. Pp. 3 to 231.

Obstetrics. A Manual for Students and Practitioners. By David James Evans, M. D., Lecturer on Obstetrics and Diseases of Infancy, McGill University, Montreal, etc. Series Edited by Bern B. Gallaudet, M. D., Demonstrator of Anatomy and Instructor in Surgery, College of Physicians and Surgeons, Columbia University, etc. Illustrated with One Hundred and Forty-nine Engravings. Philadelphia and New York: Lea Brothers & Company, 1900. Pp. 3 to 430. [Price, $1.75.]

The Prevention of Valvular Disease of the Heart. A Proposal to Check Rheumatic Endocarditis in its Early Stage and thus Prevent the Development of Permanent Organic Disease of the Valves. By Richard Caton, M. D., F. R. C. P., Emeritus Professor of Physiology, University College, Liverpool, etc. With Six Illustrations. London: C. J. Clay & Sons, 1900. Pp. x-92.

Rudiments of Modern Medical Electricity. Arranged in the Form of Questions and Answers. Prepared Especially for Students of Medicine. By S. H. Monell, M. D., Professor of Static Electricity in the International Correspondence Schools, etc. New York: Edward R. Pelton, 1900. Pp. 5 to 165. [Price, $1.]

Laboratory Directions for Beginners in Bacteriology. An Introduction to Practical Bacteriology for Students and Practitioners of Comparative and of Human Medicine. By Veranus A. Moore, B. S., M. D., Professor of Comparative Pathology and Bacteriology, New York State Veterinary College, etc. Second Edition, Enlarged and Revised. Boston: Ginn & Company, 1900. Pp. xvi-143.

Golden Rules of Skin Practice. By David Walsh, M. D. Edin., Hon. Physician to the Western Skin Hospital, London, W., etc. Golden Rule Series. No. VIII. Bristol: John Wright & Company. London: Simpkin, Marshall, Hamilton, Kent, and Company, Ltd., 1900. Pp. 5 to 102. [Price, 1s.]

Transactions of the Association of American Physicians. Fifteenth Session, held in Washington, May 1, 2, and 3, 1900. Volume XV.

Proceedings of Societies.

NEW YORK ACADEMY OF MEDICINE.
SECTION ON MEDICINE.

Stated Meeting, November 20, 1900.

Dr. John H. Huddleston, Chairman.

The Early Recognition of Typhoid Fever.—Dr. James K. Crook read a paper on this subject. He said that it was no unusual thing for a patient in the first days of a typhoid fever to call at the physician's office complaining of symptoms not unlike those of an ordinary cold, viz., headache, aching limbs and chilly sensations. The headache might, it was true, have been more than usually troublesome or persistent, but apart from a dry tongue, an excited pulse, and perhaps a rise of one or two degrees in the afternoon temperature, there would be nothing of special significance. Gurgling in the right iliac fossa was of no importance, as it was present in other diseases, and even in health. However, this group of symptoms should be sufficient to make the careful physician think of typhoid fever, and should lead him to insist upon seeing his patient twice a day for two or three days. Where this could not be done, the patient should be given a clinical thermometer and instructed in taking his own temperature. After a day or two there would be more prostration and perhaps some enlargement of the spleen. Malaria could be excluded by observing the action of quinine, or by an examination of the blood. By the end of the first week, the person would be much prostrated, the pulse would be soft and rapid, and the temperature up to 104° F. or higher. A careful search for an eruption would usually be rewarded by finding at least two or three characteristic rose spots. Ehrlich's diazo reaction in the urine should be sought for, because it was a sign of much negative value, though present in other diseases. If the blood gave the Widal reaction, the diagnosis of typhoid fever would be confirmed. It was usually possible, by a careful weighing of all the evidence, to make a diagnosis of typhoid fever by the end of the first week.

The Treatment of Typhoid Fever at the New York Hospital.—Dr. Frederick L. Keays sent a communication on this subject. He stated that it was customary in this hospital to make use of the tub bath at 65° F. for about ten minutes if the temperature rose above 102.6° F., the body being subjected to friction the whole time. These baths were given, not merely to control the temperature, but also for their tonic effect and beneficial influence on all the symptoms. For obstinate headache it was customary to give bromide of sodium, in doses of from fifteen to thirty grains, or a combination of acetanilide, caffeine and bicarbonate of sodium. Where there was insomnia, trional was administered in hot milk, in doses of from ten to twenty grains. For the delirium of alcoholic subjects, alcoholic stimulants were given, or sometimes a cold pack was substituted for the evening bath. The mouth should be frequently cleansed, preferably with a mixture of myrrh, soda and water. Nausea was controlled by the internal use of the usual gastric sedatives, by a sinapism to the epigastrium, or, in the obstinate cases, by lavage. Where there were frequent small stools, the bowel was first washed out to make sure that there was no fæcal accumulation, and then, if necessary, mild astringents or these with opium were used. Stimulants were not employed until indicated by the character of the pulse, and then whiskey was given, or if this was not sufficient, digitalis. Bronchitis was not considered an indication to discontinue the tub baths, and the mild forms of acute degenerative nephritis were disregarded in treatment. When the stools contained blood, and it was found that this was not derived from the rectum, the tub baths were discontinued, morphine was given, and an ice-coil was applied to the abdomen. When the intestinal hæmorrhage was severe, hot saline enemata or saline infusion might be demanded. Where it seemed prudent to substitute sponge baths for tub bathing, it would be found useful, at times, to dip a brush in alcohol and sprinkle the patient's body therewith while evaporation of the alcohol was favored by the use of a fan. For phlebitis the author recommended the use of a twenty-five-per-cent. ichthyol ointment.

The patients were given from fifty to seventy ounces of milk in the twenty-four hours, though occasionally kumyss or matzoon was substituted or given as a variation. After the temperature had reached the normal, the typhoid patient was allowed a lamb chop or an egg that had been boiled for twenty minutes and then finely chopped up, or perhaps scraped-beef sandwiches. The quantity of milk was gradually reduced as the dietary was enlarged. It was the practice in this hospital to disinfect the dejecta with a strong solution of formaldehyde, to carbolize the bedding, and to carefully instruct the attendants regarding the necessity for thoroughly washing the hands immediately after changing the linen, removing vessels, or washing the patient. The utensils used by typhoid fever patients were kept separate from the others, and the same care was observed regarding utensils used for suspected cases.

Practical Home Methods of Bathing in Typhoid Fever.—Dr. S. Baruch read this paper. He said that the action of cold on the skin was that of a physiological irritant. Friction stimulated the contracted arterioles to dilate again, thus restoring the proper tone to the peripheral circulation—a most important matter, as in typhoid fever it was largely owing to the increased peripheral resistance that the heart was called upon to do so much more work. This, and not hyperpyrexia, was the chief cause of heart failure in typhoid fever. If the cold applications were properly made, it would be found that the pulse became slower and stronger, the skin more rosy, the countenance less apathetic, the respirations deeper, and the kidneys more active. He wished once again to lay it down as a fundamental principle of hydrotherapy, that friction must always accompany the cold-water treatment. A violation of this cardinal rule was found in the frequent use, even at the present day, of the ice-coil on the abdomen. In private practice, the "ablution" was the simplest hydriatic procedure. It should be given with vigorous frictions, the water being gradually reduced to 60° F. Another useful application was the "abdominal compress." Three folds of toweling were wrung out of water at 70° F., applied snugly, and covered with flannel. This should be renewed hourly. The "sheet bath" was a good substitute for the tub bath. An old sheet was dipped in water at 90° F., wrung out lightly and wrapped around the patient. Then, water at a temperature ten degrees lower should be poured successively on different parts of the body, and each area so treated should be rubbed with the hand until it failed to warm up. It was also important to give the typhoid patient plenty of cool water to drink.

Giaourdi: A Milk Preparation Used in Greece.—Dr. Achilles Rose described this new milk food, and submitted samples of it to those present. He had used it with much satisfaction in cases of gastric ulcer. It was prepared in Greece according to the following directions: "Milk is boiled for an hour, being constantly stirred meanwhile. When it has reached a certain consistence, a fig ferment is added and the temperature of the milk reduced to 45° C. To make the ferment, a dry fig is soaked overnight in twenty-five drachms of water, and the next morning a slight trace of rennet and a few drops of lemon juice are added. The resulting product is a smooth, semi-solid, easily digestible milk food."

Dr. E. Quintard said that he had used giaourdi in fifteen cases, and had found it useful in neurasthenia and in pyloric stenosis.

Dr. Hélène Correll-Loewenstein said that she had examined giaourdi with considerable interest, and, after a number of chemical tests, had come to the conclusion that there must be a special ferment in the fig. She had been strengthened in this view by recalling the statement of a Swiss farmer that his success in making cheese lay in the use of a watery solution of fig in addition to rennet. Dr. Loewenstein said that she had curdled some milk with fig, and had found that it produced a smooth, soft coagulum.

Dr. Max Einhorn thought this food was not unlike the "bonny-clabber" or thick sour milk used in so many farmers' families—indeed he was of the opinion that the latter was better, because, to prepare it, it was only necessary to allow the milk to stand in a jar for three or four days. It was an admirable food.

Dr. Rose maintained that giaourdi was very different from bonny-clabber, as the latter was less easily borne by reason of the lactic acid present. He would assist in placing giaourdi on the market if there was any considerable demand for it from physicians; at present, he obtained his supply from private sources.

Gastro-intestinal Diseases at the Paris Congress.—Dr. James J. Walsh read a paper with this title. He first considered gastric ulcer. These ulcers, he said, were found only in those parts of the digestive tract where there was free acid; below the pancreatic duct they occurred very rarely and were superficial; hence it was probable that they were the result of self-digestion, though why this should occur was still a mooted point. Acute gastric ulcer seemed to be a pathological entity. In a few such cases almost pure cultures of the pneumococcus had been present. The French had described under the name "appendicitis with black vomit," a form of gastric ulcer that seemed to be associated with appendicitis. It was apparently unknown in this country. At the Paris Congress, the consensus of opinion was in favor of treating gastric ulcer by surgical operation, one argument for this view being the liability of old ulcers and their cicatrices to take on carcinomatous degeneration. A number of the German observers had insisted that olive oil was peculiarly beneficial in painful affections of the stomach. From three to ten ounces of the oil should be given in the twenty-four hours.

Another topic that had been discussed at some length was muco-membranous colitis, an affection that was evidently on the increase. Its prevalence at the present time was to be attributed largely to the habit of taking irritating laxatives, and also to the keen competition in business, for, it should be noted, this disorder occurred chiefly in nervous individuals. When present in young men, it was almost always associated with sexual neurasthenia. This form of colitis was probably not a true inflammation, but rather a nervous disorder, and treatment which would control the neurotic element would usually cure the colitis.

Dr. Max Einhorn said that he could not agree that the gastric juice was the sole cause of gastric ulcer, because he had known these ulcers to form in a case in which the gastric juice was absent. Nor could he agree with Dieulafoy that the insignificant erosions that the latter had described had been the cause of the severe hæmorrhages reported; the explanation was rather to be found in the association of these erosions with a grave infectious disease. He did not feel enthusiastic about the operative treatment of gastric ulcer, as twenty-five per cent. of his own cases that had been treated in that way had died. It was an exceedingly difficult question to decide, but he did not think the mere occurrence of even a severe hæmorrhage from the stomach was a sufficient justification for operating. Even in cases of pyloric stenosis he would not advise operation until satisfied that it was impossible to introduce sufficient nutriment to sustain life.

Dr. F. F. Ward said he could not believe that hyperacidity was the cause of gastric ulcer; on the contrary, he was disposed to think that the irritation set up by the ulcer caused the increased secretion of gastric juice. Hæmorrhages from the stomach were sometimes dependent upon anæmia. In the majority of cases of gastric hæmorrhage, he believed that medical should be preferred to surgical treatment.

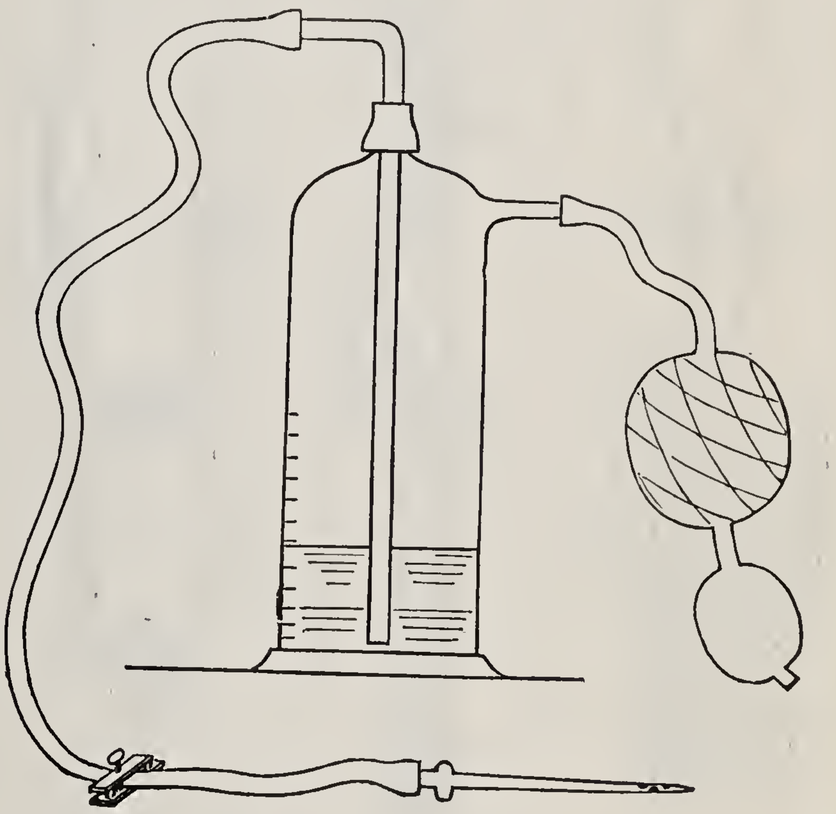
Dr. Quintard remarked that the severe hæmorrhages reported as having occurred in cases showing the exulceration of Dieulafoy, had been explained on the hypothesis that the ulceration had extended only partially through a capillary, and in this way had served to keep patent the opening in the capillary.

* * *

New Inventions, etc.

AN APPARATUS FOR THE SUBCUTANEOUS INFUSION OF OIL.

The cut here reproduced from the *Berliner klinische Wochenschrift* for October 29th shows a simple device, by Ewald, for injecting oil beneath the skin in definite amounts. It is, as Ewald remarks, quite similar to one previously devised by Strauss. It is used in one form of "extrabuccal" alimentation. It consists of a graduated bottle having a tube passing through the stopper nearly to its bottom and connected by its outer end with a piece of rubber tubing that terminates in a pointed cannula having a number of openings near the point, and having also a tubular projection at the top, to which an ordinary hand-bulb apparatus is attached. When the bulb apparatus is worked, the pressure of the air on the surface of the oil causes a certain amount of the oil to rise in the central tube and flow through the rubber tubing and the cannula.



A COMBINED SLIDE AND COVERGLASS FORCEPS.

By L. NAPOLEON BOSTON,
PHILADELPHIA,
BACTERIOLOGIST TO THE PHILADELPHIA HOSPITAL, AND TO THE AYER CLINICAL LABORATORY OF THE PENNSYLVANIA HOSPITAL; DEMONSTRATOR IN CHARGE OF CLINICAL LABORATORY IN THE MEDICO-CHIRURGICAL COLLEGE.

The forceps that I present for your consideration is by no means new, but has been in use by me for the past two years, during which time its application to general microscopy has pointed out its many defects. To perfect this forceps in every possible way, it has been necessary to have a forceps constructed showing each of the many modifications that experience alone could suggest. A study of the various developmental stages of the forceps, that I now present, is of interest, and the need of such a forceps has long been apparent to every laboratory worker. Heretofore, I have employed two instruments for this purpose, viz., a Stewart coverglass forceps and my own slide forceps (*Journal of the American Medical Association,* Sept. 8, 1900, p. 641). At the suggestions of Dr. W. M. L. Coplin and Dr. E. B. Wenner, I have modified the said slide forceps so as to give it the double function of both a slide and coverglass holder, and have adjusted the lateral clamps (5) so as to enable one to grasp the slide from off the table with the forceps (Fig. 1).

This forceps is made from a continuous piece of nickel-plated brass wire. The accompanying cuts will serve to illustrate (Fig. 1) the forceps in the act of picking the slide from the table, and (Fig. 2) with the slide locked in position; while Fig. 3 represents it as a coverglass forceps.

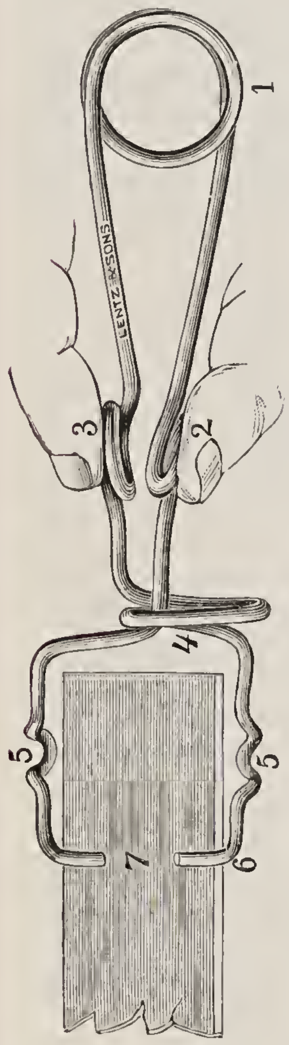


FIG. 1. The forceps in the act of picking the slide from the table.

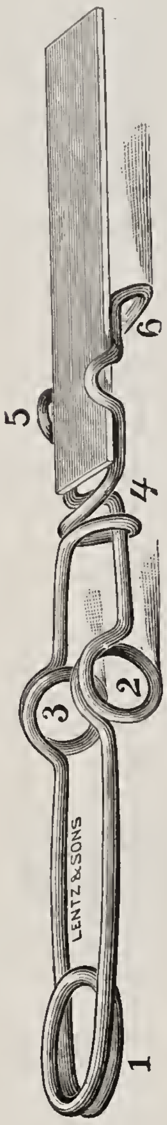


FIG. 2. The forceps with the slide locked in position.

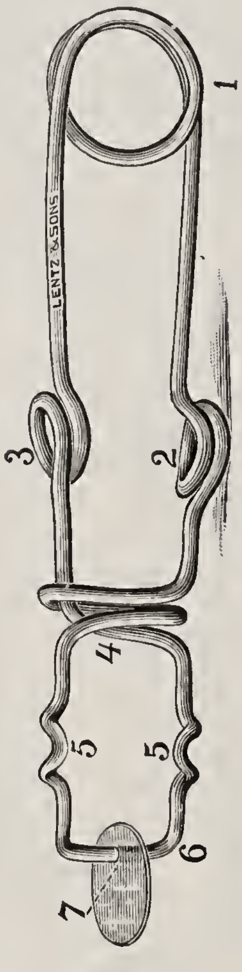


FIG. 3. As a coverglass forceps.

It will be seen that the wire is so coiled (1) as to form a spring which serves to hold either the slide or the coverglass within the jaws of the forceps. The left lateral coil (2) is slightly flattened to form a firm rest for the forceps when the coverglass is in position (Fig. 3), and with its fellow-coil (3), rests are formed to support the forceps when the slide is in position (Fig. 2). These coils also serve as convenient places for the thumb and index finger during manipulation. Coil (4) at the base of the jaws is simply to hold them in position. The lateral clamps (5) at the centre of each jaw are beveled so that, in springing against the margin of the slide, it is lifted from the surface on which it rests and is firmly fixed between the clamps. The inner surface of this clamp is provided with a groove so as to accommodate slides of various thicknesses. Beyond this point the wire supports the slide, and at (6) it is bent to form a support for the forceps when the slide is locked in position (Fig. 2). At this point the two ends of the wire are carried inward to meet at the centre of the jaws (7), and between these points the coverglass is held (Fig. 3).

By this instrument the slide is lifted from the table and properly adjusted within the jaws of the forceps to make its surface level, thus preventing liquid from changing its position when placed on the slide—by the use of one hand—(Figs. 1 and 2), an end heretofore unaccomplished by a slide forceps. A double value is attached to this forceps in that it is equally serviceable as a coverglass holder, necessitating but a single instrument for general laboratory work.

Miscellany.

Endomeningeal Spinal Anæsthesia in Obstetrics.—At a meeting of the New York Obstetrical Society held on November 13th Dr. Simon Marx read the paper of the evening, entitled My Failures and Successes with Spinal Anæsthesia, as follows:

The peculiar title of the paper about to be read will at once attract the attention I wish, for I am fully prepared to report the failures of this procedure. I have already so covered the ground of my successes that many would imagine that spinal anæsthesia could not fail. No method, mechanical, therapeutical, or surgical, has ever been used without its quota of failures. My successful punctures were so continuous that I never expected a failure. It was only after doing from sixty to seventy punctures that my failures, two in rapid succession, and for one operator, and before one audience, occurred, placing me in as humiliating a position as any honest investigator could possibly be in. They were such convincing failures that only the veriest dreamer could have thought them otherwise.

As to my successes, I have little to say, since I have said enough in other places. So far as I am concerned, "be the destiny of the method what it may, to you," I know from a very large experience what I can do with medullary narcosis. I do not need to defend this little operation; it needs no defense. We realize its possible dangers, immediate and remote; we know it occasionally fails, and we do not expect too much from it, for spinal anæsthesia will never take the place of cerebral anæsthesia, because its sphere will ever be limited to well-defined cases.

I know it will please you, not alone that Corning originated this operation, but that the first extensive original experiments were done by two Americans, Dr. Dudley Tait (Experimental and Clinical Notes on the Subarachnoid Space) and Dr. Güido Caglieri, of San Francisco, and published by them in the *Transactions of the Medical Society of the State of California,* April, 1900. The experiments, both physiological and clinical, are the first extensive experiments on record pertaining to cocainization of the subarachnoid space.

I have had in the neighborhood of a hundred punctures, with two failures. Both occurred in intensely neurotic women (Italians) upon whom pelvic operations were to be performed. By careful exclusion as to the causes of these failures I am able to exclude all but an idiosyncrasy to the drug and, again, to the highly nervous condition of the patients. The more nervous a patient the more likely is the spinal anæsthesia to fail. The possible causes of failure may be enumerated as follows:

1. Inert cocaine solution. Repeated sterilization absolutely spoils the cocaine. I never employ a solution that has been boiled more than once, but have the solution freshly prepared for each patient; at least it should not be more than one day old.

2. Too little of the drug used. This is a factor that can never be gauged, since a small dose will bring success in one case and absolutely fail in another. In obstetrics we find from a study of our cases that between a quarter and a fifth of a grain is sufficient. In surgery we certainly have seen most brilliant results from smaller rather than larger amounts, from a sixth to a quarter of a grain. I have never been compelled to give a larger individual dose, and I should consider doses of from three-quarters of a grain to a grain as highly dangerous.

3. With an imperfect syringe, backing of the solution behind the piston would cause the fluid to be ejected instead of injected. For this reason, after the injection, I always slightly withdraw the piston to be sure that this does not take place. Of course, here comes the advantage in using a glass instead of a solid metal hypodermic.

4. Idiosyncrasy is a condition that can never be foretold. It is a well-known fact that cocaine will never bring certain patients under its influence, no matter where or by what means used. This condition is especially associated with highly nervous and hysterical patients.

5. Faulty technique. Where care is used in following carefully the directions given, success in the largest majority of cases follows. Most of the failures are due, I believe, to non-entrance into the canal. The average needle should be about ten centimetres long, but the distance to be traversed will rarely exceed six or seven centimetres. Of course, in a very obese patient it may be necessary to exceed this distance, but this seldom is the case. A very dull needle point may, by pushing the membranes before it, prevent entrance of the fluid, and yet, on the other hand, a very large-pointed and sharp needle may throw the solution beyond the canal. For this reason my points are exceedingly short, more on the trocar order, for long points may wander beyond parts under control and prevent what is essential to success, the escape of spinal fluid. Again, very large-calibre needles, by making inordinately large apertures in the dura and pia, predispose to the extrusion of our medicinal fluid; therefore it is wise after the injection to hold the needle in place for a minute or so in all cases, but extrusion is best overcome by using exceedingly fine aspirating needles for this purpose. Disturbing the relation of the needle point to the canal while screwing or fixing on the barrel is a not uncommon possible cause, for, if clumsily done, it is possible to withdraw a short bevel, and such faulty action would throw the cocaine outside of the canal.

The injection is given between the fourth and fifth lumbar vertebræ, but the space between the third and fourth vertebræ is equally desirable. Tait in his experiments, and in his operative work in three cases, speaks highly of the sixth cervical space as a way that is sure and extremely easy in the human being. I, nevertheless, object to injecting in this area, for the reasons that the solid cord lies here, and, further, that the nearer to the skull cavity the cocaine is injected the greater the toxic influence of the drug. I have been so well satisfied with the fourth lumbar space that I always elect it when at all possible. To insure absence of pain from the puncture through the skin, a freezing spray is used.

From eight to fifteen minims (as the needle holds about three minims, we must allow for this and the barrel of the syringe charged with the extra amount) of a two-per-cent. solution is used, representing between a sixth and a quarter of a grain of the salt. The needle is held *in situ* for a minute, to plug the arachnoid puncture and insure the impossibility of its escape, then withdrawn and the puncture sealed. Within from two to thirty minutes anæsthesia is ushered in, occurring somewhat suddenly, occasionally preceded by a marked hyperæsthesia. There is often trembling of the limbs, with a feeling of formication in the affected areas. Vomiting often accompanies the symptoms, but is very evanescent. The operation can usually be begun as soon as firm pinching or pulling upon the labia elicits no pain. If at the end of fifteen minutes the desired result is not obtained, the injection of a smaller dose may be repeated. My clinical experience has taught me that the area of anæsthesia varies considerably and cannot be influenced by either the dose given or the force with which the solution is thrown in.

The post-operative symptoms are due to a disturbance, in part, of the equilibrium in the subarachnoid space, and could be avoided by the preliminary extraction of a small amount of fluid and by making the injection slowly. Again, the amount of cocaine is an important factor. After the use of large doses I have generally noted nausea, headache, and weakness.

[The author then quoted, in part, Tait and Caglieri's conclusions, and proceeded as follows:]

A last and very potent factor combining to make an otherwise good narcosis a failure is to be found in noise, bustle, and excitement during the operation. These patients must be protected from extra annoyances, at least avoidable ones, whether by obtunding their otherwise markedly increased powers of sight and hearing by medical means, as with a preliminary dose of morphine, or by mechanical devices, which I consider far better, *i.e.*, plugging the ears and blindfolding them, or by means of a screen, shutting off their view. As to measures directed against the post-operative symptoms, I still pin my faith to the bromides given in large doses, thirty to forty grains, an hour or two before the operation. This drug has answered admirably in many cases. Possibly a combination with caffeine might enhance its effect. Personally I have no experience with this combination, but caffeine has been highly lauded by others.

Where no result is obtained from the bromides, and the vomiting persists, which is unusual, or the headache and the other symptoms are pronounced, hyoscine hydrobromide, in doses of $\frac{1}{200}$ to $\frac{1}{100}$ of a grain, is of considerable value as a powerful cerebral sedative. I still retain the use of nitroglycerin where cyanosis or dyspnœa becomes apparent. But, since I have never seen this condition in labor, I have had no occasion to use it.

Now as to my labors, over forty in number: Motor disturbances of the uterus I have never seen, for the uterine contractions go on regularly and rhythmically, and under their influence the os dilates as under normal conditions, and all this time, while the patient has some indescribable sensation, but not one of pain, she is undergoing delivery as naturally as if her symptom of pain were not masked. Under these conditions I only recognize the powerful contractions either by placing the hand on the abdomen or by exposing the protruding and bulging bag of waters or the advancing head. Reflex action of the abdominal muscles I have found present only when incomplete anæsthesia existed, and it was then accounted for by the presence of pain. But when anæsthesia was complete spontaneous bearing-down did not occur; voluntarily, the muscles were not called into play; only when told to do so was the patient capable of bringing her abdominal muscles into play, and then as powerfully as under normal conditions. This I have always encouraged to further the *vis a tergo* in normal labors. I have done some extremely difficult operations under spinal anæsthesia, in fact, all forms of obstetrical operations, except symphysiotomy and the Cæsarean section. Explorations, versions, forceps extraction, and placental removal I have done, not with such great ease as with the patient under chloroform, but with much greater facility than in a nonnarcotized woman. It has never been necessary to finish any operation under a general anæsthetic when it was begun with medullary narcosis. Relaxation of the uterus or even spasm of a severe grade I have never encountered, or a greater disposition to bleed than under ordinary conditions. I have never met with involuntary evacuations of the bowels or bladder, such as occasionally occurs in surgical practice, even as often happens when ether or chloroform is administered, or as occasionally happens during labor under normal conditions.

In all cases in which cocaine was employed I have obtained the happiest results. In no case were any bad symptoms noted, except in one in which by mistake with the cocaine a sixth of a grain of morphine was given. The patient was seized with all the symptoms of grave opium poisoning, and required pretty heroic measures to bring her out of her soporose condition.

Bacteriology as "Light" Literature.—The *Chemist and Druggist* for November 24th says that "R. Dubois recently communicated to the Paris Academy of Science a treatise on lighting by means of cold physiological light, called living light. It is already known that a large number of micro-organisms give off light; for example, those which cause the phosphorescence of the sea. From time to time glowworms have been used for producing a delicate light effect, but light-giving bacteria have certainly not hitherto been grown expressly for the purpose of lighting large rooms. Dubois informed the academy that it is possible by growing certain photo-bacteria in broth to get a light similar to that of a beautiful clear full moon." [What a vista of possibilities for the cystoscopy of the future!]

An Act to Provide for the Appointment of a Board of Trustees of Bellevue and Certain Other Hospitals in the City of New York, and to Prescribe their Jurisdiction, Power, and Duties.—The Charter Revision Committee have recommended the passage of the following act by the legislature of New York:

Sec. 1. On the first day of February, nineteen hundred and two, the jurisdiction over, care, and management of Bellevue Hospital, including the Fordham, Harlem, and Gouverneur hospitals and the Emergency Hospital in East Twenty-sixth Street in the city of New York, shall be vested in a board of trustees who shall be appointed and whose terms of office shall be as hereinafter provided. On said date the jurisdiction over said hospitals of the Department of Public Charities of said city shall cease, and the said board of trustees shall thereupon succeed to all the rights, duties, and powers heretofore vested in said Department of Public Charities so far as concerns said hospitals.

Sec. 2. The commissioners of the sinking fund of the city of New York shall, within ten days after the passage of this act, meet and prepare a plan for the separation from the department of charities of the said Bellevue Hospital, including the Fordham, Harlem, Gouverneur, and Emergency hospitals. Such plan shall apportion to each of said hospitals the lands, buildings, fixtures, furniture, and other appurtenances and property, and the books, records, vouchers and other papers hitherto used in connection with or for the purposes of said hospitals. It shall further apportion to each of said hospitals the employees and subordinates of every grade in the service of the department of charities who were in service in and about the said hospitals exclusively at the date of the passage of this act. To enable said commissioners to prepare such plan, they shall have access to all of the books and papers which are the property of the city of New York in the custody of said department of charities, and [power?] to visit said hospitals and to compel at any and all times the attendance before them of the commissioner of public charities for the boroughs of Manhattan and the Bronx and of any of his employees and subordinates. Such plan shall provide in detail for the transfer of said hospitals and other property hereinbefore enumerated and of the said employees and subordinates from the said department of charities to the board of trustees of said hospitals herein provided for, on the first day of February, nineteen hundred and two. It shall be completed and delivered to the mayor of the city of New York on or before the 20th day of January, 1902. The said commissioners may be compelled by mandamus issuing out of the Supreme Court, upon the application of any resident and tax-payer of the boroughs of Manhattan and the Bronx, to meet and prepare such plan forthwith, if they shall have failed or omitted so to do upon said 20th day of January, 1902.

Sec. 3. The said board of trustees shall consist of seven residents of New York. They shall be known as the Board of Trustees of Bellevue and Allied Hospitals.

They shall be appointed by the mayor of the city of New York, who shall appoint the members of the first board during the month of January, nineteen hundred and two. They shall hold office as hereinafter prescribed. In the month of January in each succeeding year the mayor shall appoint a successor in office of the trustee whose term of office is about to expire. He shall also fill any vacancy existing in the office of trustee by the appointment of a trustee to hold office for the unexpired term.

Any trustee may be removed from office by the mayor upon proof either of official misconduct or neglect of duty, or of conduct which tends to discredit his office, or for mental or physical inability to perform the duties of his office. But prior to such removal he must be furnished with a copy in writing of the charges against him, and be given an opportunity to be heard before the mayor, in person or by counsel, in regard thereto. Any such removal may be reviewed by the Supreme Court. No member of the board of trustees shall receive any pecuniary compensation for his services, nor be interested, directly or indirectly, in the furnishing or performing of work, labor, services, materials, or supplies of any kind to or for said hospitals, by contract or otherwise.

Sec. 4. For the purpose of making the appointments aforesaid, the said mayor shall call upon the president or other executive head of each of the following organizations, to wit: the United Hebrew Charities of the City of New York, the Particular Council of New York of the Society of St. Vincent de Paul in New York, and the New York Association for Improving the Condition of the Poor, to present a list of not less than twice the number of persons to be appointed members of said board of trustees, to fill a vacancy or otherwise. Notice in writing of the dates on which appointments, including the first, to said board of trustees are proposed to be made shall be given by the mayor to each of said presidents or other executive heads at least ten days prior thereto, and such list of names shall be so presented within five days after the receipt of such notice.

Said presidents or other executive heads may each submit, or two or more of them may jointly present, such a list of names. Appointments to said board of trustees shall, in the discretion of the mayor, be made from such list or lists, but need not be made exclusively therefrom.

Sec. 5. No member of the aforesaid board of trustees shall hold any office of emolument under the city, county, State, or national government, except the office of notary public or commissioner of deeds or offices in the National Guard.

Sec. 6. Within ten days after the date of their appointment, the members of the first aforesaid board of trustees shall organize and choose one of their number as president, whose term of office shall be one year from the first day of February next thereafter. At such meeting the said board shall by lot divide its members into seven classes of one member each. The term of office of the first class shall be for one year, that of the second class for two years, that of the third class for three years, that of the fourth class for four years, that of the fifth class for five years, that of the sixth class for six years, that of the seventh class for seven years. The terms of office of said trustees shall respectively expire on the thirty-first day of January in the corresponding year. At the expiration of the term of each class as aforesaid, one resident of New York shall be appointed to fill the same in the manner hereinbefore prescribed, and shall hold office for the term of seven years from the first day of February next ensuing.

Sec. 7. The said board of trustees shall have the general care, management, and control of the said hospitals, together with the buildings, fixtures, and furniture connected therewith, and also of the expenditure of the money appropriated therefor. They shall have power by a vote of the majority of their number to establish general rules and regulations for the administration and government of said hospitals.

Sec. 8. The said board of trustees, within the limits of their appropriation, shall have power to appoint and at pleasure to remove such superintendents, salaried medical officers, subordinate officers, and other employees as may be necessary for the efficient management and conduct of said hospitals, subject only to the rules and regulations of the municipal civil-service commissioners.

Sec. 9. The medical boards of said hospitals shall be composed of the present attending and consulting physicians and surgeons. All of the members of said medical boards shall serve without pecuniary compensation, and shall hold office so long as they shall perform their duties in a manner satisfactory to the said board of trustees. Vacancies occurring in said medical boards shall be filled by the said board of trustees by appointment from the medical profession in the city of New York.

Sec. 10. The said board of trustees shall, on nomination of the said medical boards, appoint medical and surgical house officers to the said hospitals, all of whom shall serve without pecuniary compensation.

Sec. 11. The board of trustees shall, during the month of January in each year, transmit to the mayor a report of their operations and of the condition of the hospitals under their care during the year ending the preceding thirty-first day of December.

Sec. 12. Any person injured or taken sick on the streets or in any public square or place within the city of New York, who may not be safely removed to his or her home, may be sent to and shall be received in the said hospitals for temporary care and treatment, irrespective of his or her place of residence.

Sec. 13. The said board of trustees shall provide and maintain suitable rooms or wards for the reception, medical examination, and temporary care of persons alleged to be insane.

Sec. 14. The said board of trustees are hereby authorized in their discretion to permit the reception and treatment in the said hospitals of persons who do not reside in the city of New York, provided that every person so receiving treatment shall be required to pay such sum for board and attendance as may be fixed by said board of trustees. The said board of trustees shall collect and pay over all such moneys to the chamberlain once every month, and the amount so collected shall be paid into the general fund. The said board of trustees shall, upon making such payments to the chamberlain, report the same to the comptroller of the city of New York.

Sec. 15. The Board of Estimate and Apportionment and the Municipal Assembly shall in each year appropriate such sum as in their judgment may be necessary for the support and maintenance of said hospitals. It shall be the duty of the board of trustees thereof to send to the Board of Estimate and Apportionment an estimate in writing, at least thirty days before the annual budget specified in section two hundred and twenty-six of chapter three hundred and seventy-eight of the laws of eighteen hundred and ninety-seven is required to be made, in the same manner and general form as the heads of departments and other boards of the city of New York are required to furnish.

Sec. 16. All acts and parts of acts inconsistent herewith are hereby repealed.

Sec. 17. This act shall take effect immediately.

A Link in the Mosquito-Malaria Alliance.—Dr. Henry Strachan, chief medical officer at Lagos, West Africa (*Journal of Tropical Medicine*, November), writes that in a recent note he mentioned the interesting fact that a place called Badagry, in Lagos, had been notably free from malaria cases (new infections) for some months, though its environment was eminently favorable to the existence of the malaria parasite, and that during those months (amounting to nearly three years) he had been unable to procure or find any anopheles. Yartha pointed out that at any time malaria might reappear in that town (for persons having latent parasites in their blood were constantly going thither) and that it would be interesting to note whether a burst of malaria would be accompanied by the presence of anopheles, which abounded a very few miles away. A few weeks ago such a burst of malaria did occur. Five or six persons were attacked almost simultaneously, three of them being daily companions of one another. Dr. Strachan, as soon as possible, procured specimens of mosquitoes from the place, and found amongst them, for the first time, several anopheles.

The Resting Position of the Anopheles.—Recent researches tend to show that Ross's description of the "head on" position assumed by the malarial mosquito when at rest is not exclusively correct. The *Anopheles costalis* and the *Anopheles funestus* undoubtedly assume that position; but Guitéras showed that, in Italy at least, *Anopheles claviger* did not do so. This view has recently been confirmed by Grassi. The *Anopheles pseudopictus*, however, according to Sambon and Low's researches in Italy, does assume that posture. From these facts it follows that the "head on" position cannot be regarded as a *sine qua non* for a malarial mosquito. The point is not one of very great importance, perhaps, but it is just as well to be as accurate as possible.

Life in the Tenement House.—In *Charities* for November 10th, which is the official organ of the Charity Organization Society of the City of New York, appear the following interesting remarks, and, in the main, sound suggestions from a tenement-dweller who has spent his life in the tenements among tenement people:

"I regard carelessness as the greatest evil of tenement-house life. Mothers overburdened with family cares become negligent. Then, step by step, follow laziness and absolute filth.

"In the ordinary tenement we find on each floor from eight to fourteen rooms divided into apartments of two, three and four rooms. And in the majority of cases one finds four families on a floor. If these apartments were well ventilated and the rooms large and airy, this condition of affairs would not be so bad. But the rooms are small, the halls are dark and narrow, and the airshafts are either so small as to be useless or are closed at the top. On account of their proximity to the kitchen, they soon become receptacles for fruit skins, bones, etc., much to the discomfort of the tenants. Unless the janitor is a careful person the very thing that should be a useful improvement becomes a menace to health.

"However, it must not be supposed that in many houses improvements exist, or have been made, which the tenants do not appreciate.

"And we should find that when families demanded certain improvements and when the desire for better living apartments became more general, capital, ever on the lookout for a good investment, would endeavor to supply the wants of the people. But, of course, we should compel the old 'mossbacks' who would never improve their property unless obliged to by law.

"One would really appreciate a bath occasionally, but such a thing is impossible in the tenement house of today. Our wives would like to have a safe method of drying their clothes, instead of the present method which results in so many deaths every year caused by women falling out of windows. The fences separating the yards could be taken down and we should have a safe playground for the children; a few trees would provide sufficient shade. And with the establishment of drying rooms, or other suitable method of drying clothes, the necessity for the unsightly clothes-pole would be at an end. Then our back yards, instead of being an unsightly blot, would become breathing spots and pleasant playgrounds for the children.

"In conclusion let me suggest what I think are the legislative reforms which are really needed for the improvement of the tenements.

"First.—Every house should have at least two shower baths; one for males, the other for females. The objections to the tub baths are so many that it is unnecessary to state them here.

"Second.—No apartment should be so divided as to permit a family of more than four to occupy less than four rooms.

"Third.—Fire-escapes, instead of running up and down the house as they do now and making one's chances depend upon his ability to climb a ladder, should extend across the front or rear of the entire row of houses. Where a house is isolated the ladder fire-escapes might be permitted.

"Fourth.—There should be easy access to the roof. In many cases the ladder route is the only one. This is nearly as bad as the closed airshafts, since it keeps people from where they could easily get a little air.

"Fifth.—Airshafts should be built in every tenement. They should be large and open at the top, and should be cleaned and whitewashed at regular periods.

"Sixth.—The fences in the yards and rear buildings should be removed to furnish playgrounds for the children and a breathing spot in the evening for their parents.

"Seventh.—Halls should always be lighted and kept clean. Closets, cellars, etc., should be painted or whitewashed at stated periods."

The Dissemination of Tubercle Bacilli by Cows in Coughing as a Possible Source of Contagion.—Dr. Mazÿck P. Ravenel (*University Medical Magazine*, November) in a paper read before the Pathological Society of Philadelphia, November 8th, based upon work in the Laboratory of the State Live Stock Sanitary Board of Pennsylvania, said that it was the general opinion of investigators and physicians that the chief method of the dissemination of tuberculosis lay in the inhalation of dried tuberculous sputum, which became pulverized, and was carried about by currents of air or raised from its resting place in the cracks of floors. The experiments of Cornet, made under the direction of Koch, were strongly corroborative of this view. The habit of indiscriminate spitting by persons suffering from consumption had until very recently been accepted as the chief means by which the contagion was spread. Flugge has recently taken exception to this opinion and held that the spread of tuberculosis was due mainly to the inhalation of minute particles of sputum brought to a state of fine division during the act of coughing. He believed that these minute particles floated in the air for some time and might be carried by very slight currents. He had brought forward as confirmatory of this opinion experiments by himself and his assistant. In this country, Klebs had by similar experiments shown that, during the act of coughing, minute particles of sputum, oftentimes containing tubercle bacilli, were thrown out. Dr. Curry, of Boston (*Boston Medical and Surgical Journal*, October, 1898, Vol. cxxxix, No. 15), at the suggestion of Klebs, had carried out experiments in twelve cases of tuberculosis with a view of determining what degree of danger might arise from this source. He had examined the mouth fluid of patients whose sputum revealed the presence of tubercle bacilli, and in nine out of twelve cases the bacilli were found at some time during the day, though usually in very small numbers. In three of the cases many bacilli were found at nearly every examination. As a rule they were most plentiful in the early morning. He had also suspended glass plates before these patients at distances of from one to three feet. By this method one-half of the cases had given negative results. All of them, however, had had low cough and were in the habit of keeping the lips closed during coughing. Of the six patients who had given positive results all had had a loud cough and had kept the mouth open during coughing. He concluded from his experiments that there was not only a possible, but even a probable danger from this source, but he considered that Flugge had greatly exaggerated this danger. He called attention to a point which seemed to have escaped Flugge entirely, namely, that these small particles of sputum were likely rapidly to become dry, in which condition they acted just as so much dried infectious sputum. Wherever particles of sputum which contained virulent tubercle bacilli were thrown out a possible source of danger must inevitably be recognized.

In a series of studies having for their object the relation of bovine tuberculosis to human health, Dr. Ravenel was led to see if it was not possible that cows in the act of coughing would likewise expel small particles of tuberculous material rich in tubercle bacilli. The opinion was widely accepted that cows swallowed their sputum and did not project it to any extent. Various methods for the collection of sputum from the trachea and larynx of cows had been tried with the idea of using it for diagnostic purposes. Pols had proposed the insertion of a cannula into the trachea for the collection of mucus, but this had not proved satisfactory. Nocard had suggested the injection of veratrine or eserine in order to increase secretion from the bronchial tube, but this likewise had been unsuccessful. The use of a swab inserted down the trachea by means of a long handle, as proposed by Greffier, had given better results. The method used in Dr. Ravenel's experiments consisted in the use of an ordinary nose-bag, near the bottom of which was placed a shelf of soft pine-wood, which was sterilized by steam heat each time before using. Such a nose-bag might be left on the animal for several hours at a time, the amount of material collected varying greatly in different animals, and in the same animal from day to day. The smallest particles ejected by the cow during the act of coughing adhered to this piece of soft pine-wood, which absorbed most of the fluid portion, leaving the more solid particles standing in relief, so that they could be easily detected by the naked eye or by a low magnifying glass. From this they might be removed with a platinum needle to a cover-slip and examined under the microscope. By this means he had been able to detect tubercle bacilli in the bronchial secretions of every tuberculous cow in which it had been tried. In one animal, the amount of secretion was exceedingly minute, and even after the nose-bag had been kept on for from three hours and a half to four hours there were often only a few particles of matter not larger than the head of a pin, but they were almost always exceedingly rich in tubercle bacilli. In this way, what might be expected theoretically had been practically demonstrated, namely, that in the act of coughing, cows as well as men atomized, so to speak, their sputum and projected it into the air in minute particles, which might float for a considerable period of time. Secretion collected in this way had been inoculated into the peritoneal cavity of guinea-pigs, and, even when the bacilli could not be demonstrated under the microscope, a considerable proportion of positive results had been obtained. Dr. Ravenel did not mean to advocate this method as a means of diagnosis, although his experiments warranted him in believing that tubercle bacilli could always be found in the sputum of tuberculous animals at some time; but doubtless in early cases it would require a large number of examinations, and with the well-established use of tuberculin it would seem unnecessary to resort to this means. The danger of infection by means of this atomized sputum, so far as mankind went, was confined practically to those in constant contact with the animals, but for other animals in the same stable these particles must be considered as a source of danger.

Of thirty-four examinations carried out on five different animals, tubercle bacilli were detected by microscopic examination twenty times. The number of bacilli found varied greatly, but one of the five animals constantly coughed up a tenacious mucus in which the numbers approached those seen in human sputum from advanced cases.

During a period of time extending over forty-three days, mucus from two cows was collected by means of the nose-bag on eighteen days, and inoculated into the peritoneal cavity of forty-five guinea-pigs. Of these, twenty-three had died within a few days, most of them from peritonitis, at a period too early for the development of tuberculous lesions. Subtracting these, there remained twenty-two animals, eleven of which, or fifty per cent., became markedly tuberculous.

By means of a special nose-bag, guinea-pigs were exposed directly to the breath of the cows in whose sputum tubercle bacilli had been found. Fourteen guinea-pigs were exposed for varying periods of time, as follows: Two guinea-pigs, for two hours on one day; two, for two hours and a half on one day; two, for three hours on one day; two, for five hours on two days; two, for fifteen hours on five days; two, for twenty-seven hours on nine days. These animals were killed after several weeks, but no evidence of tuberculosis could be detected in any of them.

The cows on which the examinations were carried out were all marked subjects of tuberculosis, though only one was in the last stage of the disease. One animal which gave a large proportion of positive results lived for more than two years after the experiment.

Mosquitoes Communicate Yellow Fever.—A board of medical officers of the War Department in Cuba, have, according to their report to Surgeon-General Sternberg, demonstrated that yellow fever is spread through the bite of the mosquito. One of the board died as a result of the experiments. The board consisted of Dr. Walter Reed, surgeon, U. S. Army, and Dr. James Carroll, Dr. A. Agramonte and Dr. Jesse W. Lazear, acting assistant surgeons. During the experiments Dr. Lazear was bitten by a mosquito that had previously bitten a yellow fever patient. The doctor died of that disease after a short illness. Dr. Carroll allowed himself to be bitten by a mosquito that had previously fed on several yellow fever patients and suffered a serious attack of the disease. A civilian resident of the military reservation, a young American, whose name is not given in the report, was bitten by the same mosquito that bit Dr. Carroll and died of yellow fever.

Hospital Privileges Abused in Washington.—In the statement of the District of Columbia board of charities explanatory of recent estimates, attention is called to the fact that several new hospitals have been erected in Washington and old ones enlarged without the aid of a dollar from the public treasury. Continuing, the paper reads: "The board also believes that careful investigation should be made of the circumstances of those seeking the benefits of public charitable institutions. It is convinced that great abuses have existed in the past because of the lack of such investigation, and as a result not only has the taxpayer's money been wasted, but the beneficiaries of public institutions have been pauperized. The board, therefore, purposes to plan for the proper investigation of all those seeking the benefits of public charity."

An Irish-American Surgeon to Sue Portugal.—According to a cable from Paris, Dr. H. L. McAuley, of

Chicago, who has recently returned from the Transvaal, intends to present a claim for $100,000 damages against the Portuguese government for imprisonment at Lorenzo Marques. He says he is one of the few Chicago members of the Red Cross Society who refused to tear off the badge of the organization and shoulder a rifle in behalf of the Boers. Throughout the war, Dr. McAuley alleges, he stuck to the ambulance and tended both the Boer and British wounded. He was thrown into prison for six days at Lorenzo Marques, finally being shipped off to Europe, via Trieste, without a charge being made against him or being placed on trial. All his surgical instruments and personal effects, to the value of $700, disappeared during his incarceration.

Rabbits Charged with Causing Diphtheria.—There have been more than 100 cases of diphtheria, with 20 deaths therefrom, in the town of Grafton, Ill. Business in the place is stagnant and the two thousand residents remain indoors by order of the mayor. A great many rabbits have infested the country surrounding Grafton this fall, and the hunters put them on the market at prices so cheap that they were used largely as food. Within the last week hundreds of dead rabbits have been found near the town. Physicians soon became convinced that the rabbit flesh was responsible for the illness and had some subjected to microscopic examination, which proved that the rabbits found dead had succumbed to diphtheria. The physicians then issued a warning to the townsfolk to abstain from eating the rabbits.

Cancer among Colored People; the Freedmen's Hospital, Washington, D. C.—The report of the Freedmen's Hospital at Washington, D. C., to the Secretary of the Interior has now been issued. Dr. A. M. Curtis, surgeon-in-chief of the hospital, in discussing the condition of the institution, calls attention to the increase of cancer among the colored people, attributing it to the environment incident to American civilization. He recommends that an electric light plant at a probable cost of $2,000 be substituted for gas, and makes an urgent request for modernized buildings and the establishment of a pay ward. He also advocates the maintenance of the hospital as a separate institution under the absolute control of the Interior Department.

Novel Method of Providing Hospital Supplies.—In order to provide the groceries needed in the institution it is the custom of the eye, ear and throat hospital of Washington, D. C., to have a "hospital Saturday" every fall, on which a thousand paper bags are sent out to possible donors, an appeal for groceries being printed on each bag. As a rule the supplies received in response to this appeal suffice for the needs of the institution for the next twelve months.

German Physicians to Fight Lodges.—An association of physicians has been formed in Germany to oppose the formation of the "Krankenkassen" or cooperative sick benefit societies, the growth of which seriously threatens the incomes of the medical practitioners. The president of the association is Dr. Hartmann, of Leipsic, who publishes in a recent number of the *Münchener medicinische Wochenschrift* an appeal to the physicians of Germany to join the association and help in mitigating the evils incident to the growth of these sick benefit societies. This growth, it is stated in the call, has had a most disastrous effect upon the practice of medicine. The amount paid *per capita* for medical treatment by these societies is so small that the "flush of shame covers the face" when the size of the fee is contemplated. The tone of the call and also of some editorial comment upon it which appears in the same number of the *Wochenschrift* is sufficient evidence to prove that very grave abuses have come about through the growth of these benefit associations.

Chicago's Good Health.—Chicago has been unusually healthy this fall, as measured by the mortality rate. The September, 1900, monthly mortality was 3.5 per cent. lower than the previous average; the October was 5.4 per cent. lower, and for the first ten days of November it has been 18 per cent. lower. According to a statement issued by the health department last week there were only 361 deaths reported from all causes, as against 374 in the record-breaking week of June 16, 1900, and 440 in the corresponding November week one year ago. The monthly mortality rate of the first ten days of the month is .85 a thousand, and the annual rate 10.56 a thousand of the United States census figures of population. This is about the normal death rate of small towns, villages and country places, and is excelled only by eight of the total 129 cities listed in the recent United States Government report of the Department of Labor. St. Joseph, Mo. (102,979), 8.02; Portland, Ore. (90,426), 9.54; Seattle, Wash. (80,671), 7.43; Lincoln, Neb. (40,169), 9.16; Tacoma, Wash. (37,714), 8.64; Sioux City, Iowa (33,111), 9.45; Rockford, Ill. (31,151), 8.47; Canton, Ohio (30,667), 10.11.

Havana's Vital Statistics for October.—According to the report of Major W. C. Gorgas, Surgeon U. S. Army at Havana, the general death rate for the month makes a very favorable showing as compared with the four months previous. The report shows 507 deaths, which gives a death rate of 25.08. The rate compares very favorably with the rate for October for the ten preceding years, being smaller than the lowest, that of 1899. There were 74 deaths from yellow fever. While this is large for October, it is not, as has been reported, as large as that for October in many of the preceding years. Of the cases of yellow fever, 62 were Americans and 225 Spaniards; 8 Americans died and 51 Spaniards, giving a rate respectively of 12.90 for Americans and 22.66 for Spaniards.

Death from Guaiacol Poisoning.—The *Medical Press and Circular* for November 14th reports the death of a child between two and three years of age, from swallowing a quantity of its father's medicine equivalent to two teaspoonfuls of the drug.

Massachusetts Health Statistics.—A statistical review of the health of the population in Massachusetts during the month of October, prepared by the State Board of Health, shows that there was a general increase in several infectious diseases, especially diphtheria. In some of the places the situation has required special action by the health authorities or school officials, a large percentage of the sickness being among school children. Somerville has under consideration a proposition to institute a more thoroughgoing medical inspection of the schools. In Waltham the hospital accommodations have been increased. The Boston City Hospital has accepted as many diphtheria patients as its wards for that disease can accommodate. The sick-list in Boston naturally is larger than that of any other city in the State, and it is large in comparison with the records of former years. There are not many deaths, however.

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REMARKS ON INDICATIONS FOR THE RADICAL THERAPY OF UTERINE FIBROIDS.

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WHEN the scientific physician, who is not contented to cure symptoms in disease but endeavors to choose his methods of treatment in every case according to the exact diagnosis of the underlying anatomical cause, has revealed alterations in his patient, which are, in regard to methods of treatment, lying on the borderland of internal and surgical medicine, such as gall stones, uterine fibroids, gastric ulcers, etc., the question when to advise medical, when surgical intervention, is very often most difficult of solution, especially when there exists no life and death emergency. When a bullet has entered the human body and caused no serious disturbance indicating its removal, it is well recognized that the search for this bullet by sounding is blundering treatment (cf.: von Bergmann's *Chirurgische Behandlung der Gehirnkrankheiten*, p. 547), and at the Surgical Congress in Berlin, in 1894, when somebody was speaking about sounding, the question arose, Who uses a sound nowadays for this purpose? Furthermore, we all know that when a bullet has found a place in the individual where, as Röntgen's epoch-making discovery may show, it cannot give rise to any disturbances in the bearer in the future, this foreign body is by no means a subject for dangerous operations which would probably threaten life.

Another so-called *corpus alienum* in the human body is gall stone, upon which I may be allowed to touch briefly in my introduction. No indication for operation exists so long as it remains latent and gives no symptoms of its existence, but so soon as the patient begins to complain of pain and constant "stomach aches" in the epigastrium—as we all know the lay public is prone to call all kinds of disturbances originating from the gall bladder, stomach trouble—the controversy, here Carlsbad and its treatment, there surgery, begins to puzzle the mind of the physician.

Concerning myomatous growths of the uterus, to which one may apply considerations similar to those concerning the before-mentioned foreign bodies, I have already stated in my article, Remarks on Vaginal Hysteromyomectomy and Morcellement of the Myomatous Uterus, (1) that they are, so long as they do not give rise to ymptoms of any kind in the bearer, by no means subjects or any interference whatever. At the same place, furhermore, I have already pointed out that concerning the necessity of radical surgical treatment, Olshausen (2), ne of the most ardent defenders of conservative methods in gynæcology, out of 200 cases of fibroids which he oberved in his private practice up to 1897, operated on but 3, or 16.5 per cent. In the following three years, 1897 o 1899, out of 320 further cases of his private practice, he operated on but 53, or 16.6 per cent. Not seldom we find, on examining a patient, subserous myomatous growths of considerable size, but without symptoms, especially in young individuals in whom the strength of compression of the abdominal walls prohibits painful movements of the tumor in the abdominal cavity, and fibroids have been found in post-mortem examinations where no sign during life gave evidence of their existence.

It is unnecessary to proclaim here that the only certain method of removing a fibroid is by way of the radical therapy, that is, by the removal of the growth or of the whole uterus by vaginal or abdominal operation. All other methods of treatment, whether they be medical, such as ergot cure, hydrastis, liquor Halleri, hydrastinine, stypticin (3), salipyrine (4), liquor ferri sesquichlorati, thyreoid and mammary extracts (5); or mechanical, such as sitz-baths with sea salt, hot douches, massage in cases of fibroids complicated with pelvic inflammations, Apostoli's electricity, curettement, oophorectomy, and ligation of the uterine arteries, alone or in combination with ligature of the artery of the round ligament and the spermatic artery (6), are only symptomatic and palliative procedures; but of course many of them are useful in appropriate and carefully selected cases for symptomatic treatment, though the possible results of others are extremely doubtful. The latter is especially the case with Apostoli's method, and when I read in the *Journal of the American Medical Association* (7), that Péan, of Paris, when once asked what he thought of electricity in cases of uterine fibroids, answered: "Electricity is a nice thing if your patient has plenty of money and is willing to pay you for your time; but, after all, when Apostoli gets through with his cases I get them and operate on them," this answer unwillingly reminded me of von Bergmann's statement in a clinic about some cases of rodent ulcer which a Berlin professor and skin specialist alleged that he had healed by his arsenic paste half a year previously, but which returned later on. Von Bergmann said: "That this kind of cancer, called by Billroth formerly a scirrhus cutis, may heal in the centre by itself was already known by Aristoteles, but this healing will be only apparent. The men of our time don't seem to have made advances in this direction; now we will operate on them and then they will be healed thoroughly." Apostoli's method is an illustrative example of the transitoriness of many modes of treatment current in medical literature. In 1890, at the International Congress of Medicine in Berlin, Apostoli was fêted as a hero, and electricity in the treatment of uterine fibroids was praised as the method of future treatment; even Spencer Wells, who counted his ovariotomies by the thousand, congratulated him concerning his marvelous invention. After ten years, almost coincident with the death of its devisor, on the 27th of April, 1900, electricity, as a method of treatment of uterine fibroids, has been thrown almost into the sea of oblivion, and but very few gynæcologists use it in carefully selected cases as a symptomatic cure. *Tempora mutantur* *nos et mutamur in illis.* *Vide* Boldt's paper on Myofibroma Uteri, and the discussion on uterine fibroids at the last meeting of the American Medical Association (10).

I will not expatiate here on the drugs mentioned as being used to control hæmorrhages of the fibroid uterus, or on the possible results of mammary extract and mammary glands. The action of the latter, in cases which had been characterized by an excessive weakening menorrhagia and metrorrhagia is, as Shober (11), of Philadelphia, quotes, very similar to that of ergot, but far more reliable and surer in his opinion, and it could be used over much longer periods of time without causing unpleasant symptoms. But he who believes that by the use of these preparations, myomatous growths may become diminished in size, aye, more than that, that they may disappear entirely, may believe it. I should only like to call your attention to the fact that when, after the use of the drugs, the growth becomes smaller, it is very difficult to say, *post hoc, ergo propter hoc.* We all know that fibroids can undergo changes concerning their size by themselves without the use of drugs, and not seldom we may, for instance, observe that some ten or fourteen days before the menstrual period a myoma may increase continually up to the time of the menstrual flow, but, when the latter is finished, a decrease begins. Therefore, when we intend to give a statement in regard to an appreciable decrease in size of such a tumor, we must take this into consideration.

In respect to the value of ligature of the uterine arteries and the other vessels, on which Gottschalk at one time laid stress, I will, as I have no experience of my own on this question, cite briefly the words of Boldt (12), of New York, who, from a large amount of material draws this conclusion: "Some years ago I was, with others, favorably impressed with operative palliative treatment, consisting in ligation of the uterine arteries. Unfortunately, the continued observation of the patient thus treated showed that the method did not bear the test of time; it has, therefore, been abandoned."

In reference to the indications for the radical operative treatment, that is, myomectomy vaginalis and abdominalis, and hysteromyomectomy vaginalis and abdominalis, it seems appropriate to distinguish three groups:

A. Cases in which radical surgical intervention is unnecessary;

B. Cases in which radical operation is absolutely indicated;

C. Cases in which no immediate danger prompts to subsequent operation, but in which we find radical operative treatment advisable, for the reason that there exist conditions in the small pelvis and in the relation of its organs to other organs of vital dignity, especially the heart, kidneys, and nervous system, that will be, in the future, sources of constant danger and annoyance to the patient.

Group A. To the first class belong, as already mentioned, cases which give rise to no symptoms whatever. We find them usually among elderly virgins, and it is believed that celibacy in connection with masturbation is one of the causes in the genesis of these fibroids. It really is a fact that the members of the so-called *demimonde* are suffering nearly always from gonorrhœal infections and their sequelæ, but fibroids among them are scarce phenomena, while, on the contrary, old maids are prone to suffer from the latter. Winckel (13) cites in his interesting and much discussed work on Aetiologie der Uterusmyome that Virchow is said to have made the statement that he seldom performed a postmortem section of an elderly virgin without finding myomatous growths. It is not the place here to explain what the relations are between celibacy and the ætiological theory of fibroids, as growths produced by over-nutrition because of long active hyperæmia, or to mention other ætiological factors, such as infectious disease, masturbation, coitus interruptus, perverse sexual irritation, heredity, etc., or to discover why negro women are prone to suffer from myoma. Cameron, of Toronto (*Medical Record*), cites 50 per cent. Whoever is interested in these hypotheses can find everything in Winckel's lecture above mentioned, and Gottschalk's (14) paper, Zur Aetiologie der Uterusmyome.

Group B. Radical operative treatment is absolutely indicated.

1. In cases in which we find, or can suspect, carcinomatous or sarcomatous degeneration in the fibroid itself. These cases are, as we all know, extremely scarce, and it is often only possible to make the diagnosis *ex juvantibus* when, for instance, fibroid begins to grow suddenly with rapidity, chiefly about the climacterium.

2. In cases in which fibroids are complicated with malignant degeneration of the uterus or annexa (carcinoma of the ovary). Not seldom we find adenocarcinoma of the uterine body complicated with fibroids. I observed a case in my former practice where a pedicelled subserous fibroid, almost as large as the fist, originating from the posterior uterine wall, was complicated with an "inoperable" adenocarcinoma of the body of the uterus. By an explorative opening of Douglas's cul-de-sac through the posterior vaginal vault, I found the peritonæum covered with carcinomatous masses. The woman died two months afterward. It is sometimes extremely difficult to make a diagnosis between a secondary malignant growth in the posterior cul-de-sac and a myoma, especially when the latter is not in direct contact with the uterine body, originating, for instance, from the remnants of Gartner's duct, a so-called mesonephric myoma (Landau) (15), or when the pedicle which existed at one time has disappeared by spontaneous amputation or absorption.

It cannot be sufficiently urged that in all cases in which the physician finds a tumor in Douglas's pouch, which suggests to him the probability of a myomatous growth, and where the anamnesis of the patient and other circumstances give the slightest suspicion of the possibility of malignant degeneration, a careful examination of the uterine cavity by sounding and curettement, and, furthermore, a careful microscopic and macroscopic examination of the curetted mass by an expert, are absolutely necessary. In some cases I have found it advisable to open the uterine cavity after anterior vaginal cœliotomy by an incision through the anterior wall of the uterus, and, putting thereby the inside of the uterus under the control of the eye, to curette and excise suspected places for microscopic examination. I have a case under my care now to which I intend to refer in another article on Diagnosis of Tumors in the Douglas, in which one was inclined by superficial examination to make the diagnosis of a subserous fibroid; but the exploration of the uterine cavity, followed by a microscopical examination, revealed an adenocarcinoma of the uterus with a secondary malignant tumor in Douglas's pouch, as shown by an examination of a part of the tumor after an incision through the posterior vaginal vault. By rectal palpation, which should never be omitted in any case of tumor in the small pelvis, it was shown that the malignant growth had already involved the muscularis and mucosa of the rectum, and was almost breaking through into the gut.

3. Operation is absolutely indicated in cases of torsion and rotation of the myomatous uterus, because of the danger of gangrene and septic peritonitis. With Gebhardt, of Berlin, by torsion of the uterus I refer to the turning of the uterus in the cervical portion, and by rotation, to the turning around the vagina. It has been found that there are but few cases stated in the literature where a torsion of the uterus, produced by a fibroid, was less than 180 degrees. On the other hand, torsion of the uterus originated by ovarian tumors is seldom more than 90 degrees, and cases with torsion of the uterus of 180 degrees, caused by ovarian tumors, are exceptional. (Von Woerz, Zum Kapital der Axendrehungen des Uterus.) (16).

4. Cases which are of such enormous extension that they threaten life by pressure on the diaphragm and on the other abdominal organs, give absolute indication for operation. As monstrous growths of fibroids are cited by Koeberlé (17), a tumor of 28 pounds; Churchill (18) cites a case observed by Lanthier, 33 pounds in weight; Binz (19), a case of 62 pounds; Stochard (20), a tumor of 123 pounds; and Hunter (21), a fibroid of 140 pounds.

5. Cases which produce hydro-ureter, hydronephrosis, or even complete anuria by pressure on the ureters, sometimes with inflammation of the kidneys, pyelonephrosis, formation of the whole kidney into a pus sac, etc. Knox, Jr. (22), in a remarkable paper from the Johns Hopkins Hospital (service of Dr. Kelly) on Compression of the Ureters by Myomata Uteri, divides the degrees of ureteral nvolvement by fibroids into four large groups.

Group A, with moderate ureteral involvement, in which often the resulting hydro-ureter is not suspected. n many of them we find frequency of micturition, a clinial sign of early affection of the ureters.

Group B, with pronounced ureteral pressure, the patients complaining of definite symptoms indicating an interference with the passing of urine.

Group C, with mechanical destruction of renal substance by pressure atrophy, beginning with the pyramids and extending finally to the cortex. Often, the whole mass of the kidney becomes converted into a fibroid sac.

Group D, ureteral pressure with inflammation. The frequency of such a condition of the upper urinary tracts in cases of ureteral obstruction is attested by the fact, that out of twenty-five cases collected of pressure upon the ureters produced by myomatous tumors, infection of the ureter or kidney followed in twelve instances.

6. Cases which, by the location of the origin of the fibroid or by retroflexion of the uterus, produce grave symptoms of incarceration in the small pelvis, such as serious neuralgia, symptoms of severe dysuria in connection with ischuria paradoxa and coprostasis. Retroperitoneal, or so-called retrocervical fibroids, growing in the connective tissue of the broad and the sacral uterine ligaments, and pushing the peritonæum up before them, which many a surgeon regards as a *noli me tangere* for radical operative treatment, and in which cases, when he sees that the difficulties are insurmountable, in his opinion, he is content with the removal of the ovaries, are chiefly prone to bring upon the bearer the above-mentioned disturbances in the highest degree. At this place, I may be allowed to take the opportunity of stating that the removal of the ovaries, which has been used as a palliative measure in cases as before mentioned, cannot be too strongly condemned, as it is almost absolutely useless. It has, therefore, been discarded with full justification. Only radical surgical intervention, either through the abdomen or by enucleation through the posterior vaginal vault, sometimes in combination with morcellement, as recommended by von Ott (23), of St. Petersburg, at the last International Congress at Paris, can relieve the patient from the disturbances caused by these tumors, which, besides, incline to malignant degeneration much more frequently than in other regions. Von Ott, who used the vaginal method of operation in myomatous growths in 193 cases, with 3.1 per cent. mortality, states concerning the vaginal enucleation and morcellement of myomata, that this method is, as compared with abdominal cœliotomy, three times less dangerous, and finds its indication in every case in which the practice is possible. Similar conditions of incarceration in the small pelvis can be produced by subserous fibroids, which, originating from the posterior uterine vault, are lying intraperitoneally, and are still connected with the uterus by a pedicle. Through the kindness of Dr. Fitzgibbon, I operated on such a case in April of this year in St. Joseph's Hospital, Milwaukee. A myoma of the size of an apple, connected with the posterior uterine border through a pedicle as broad as the little finger of an adult, and half as long, and attached again in the depths to the cervical part of the uterus, was lying on the pelvic floor in the posterior cul-de-sac, imbedded in thick adhesions. The formation

of the uterus, cervix, pedicle, and the growth, was such that there was a hole through which it was possible to put a finger from the left to the right side. The uterus, pedicle, and myoma were removed with intraperitoneal treatment of the stump. The patient made, so far as I am aware, an uneventful recovery.

7. In cases in which uterine fibroids grow quickly, particularly, as already stated, near the climacterium, radical therapy has to be employed. In many of them we find cystic, myxomatous, or sarcomatous degeneration.

8. In cases of uterine fibroids in which suppuration has occurred, or which are gangrenous, or are in a state of becoming gangrenous after partial or total inversion of the uterus, thereby causing great pain by labor. In some of these cases it is sometimes difficult to distinguish by macroscopic examination the gangrenous mass from carcinoma (*vide* Nijhoff (24), Linden and Kuester (25)), especially when they originate in the vagina and adhere to its walls.

9. Uterine fibroids complicated with umbilical hernia, pyosalpinx, ovarian cysts, pelvic cysts, etc., tubo-ovarian abscesses, abscesses in the broad ligament, phlebitis. Furthermore, when there occurs in the puerperal state or after an abortion, necrosis of the fibroid with suppuration, necrosis with filthy abscesses, or necrosis with beginning elimination of the fibroid. In all of these cases the fibroid is complicated with malformations, which of themselves make an early removal feasible. Freund (*Centralblatt für Gynäkologie,* 1900, p. 1043) states that in cases of necrosis of the myoma, self-intoxication of the patient may occur, and in the urine, acetone and indican may be demonstrated.

10. Weakening menorrhagias and metrorrhagias produced by fibroids, which give the patient the wax-like appearance, that of itself enables us oftentimes to make a probable diagnosis at first sight, are further indications. To treat these patients by the use of drugs to a point where fatty degeneration of the heart is established and thereby the chances of operation are almost wasted, is just as much blundering treatment as to cure appendicitis by drugs unto the stage of general peritonitis. One must have had one's own experience as to how much patients of this kind, who are exhausted by continuous menorrhagias, are benefited by operation—myomectomy or hysteromyomectomy, especially when performed by the vaginal route—in suitable time. Fritsch (26), for instance, says: "I would rather submit such an anæmic patient to a vaginal hysterectomy of one hour's duration than to an abdominal section of ten minutes." I operated upon one patient who had to sell her farm because of debility from exhausting metrorrhagias during a period of five years. One year after operation (vaginal hysteromyomectomy with morcellement, the uterus extending to the navel), having regained perfect strength, she thought life too dull without work and bought another farm.

11. Fibroids, which, at the end of pregnancy and at the beginning of labor, are obstacles to child bearing.

12. More seldom it may be found necessary to operate *during pregnancy,* and the indications to which one has sometimes resorted during this state are by no means always justifiable. In a very interesting and readable article, Das Myom in der Fortpflanzungs-Periode, written by De Strauch (27), of Moscow, are cited all cases of pregnancy in a myomatous uterus *since* 1895 in which intervention has been found feasible *during the pregnant state.*

I may be allowed to quote here briefly the following: "From 121 operations during pregnancy there were performed: Total abdominal extirpation of the uterus, 35 times with 2 deaths; supravaginal amputation, 38 times with 4 deaths; removal of the fibroid growth with preservation of the uterus, 34 times with 4 deaths; removal of the fibroid by way of the vagina, 6 times—abortion was twice produced by the latter operation. In 8 cases, with 1 death, it is not stated which method of operation was performed. In 12 cases of pregnancy in a myomatous uterus, spontaneous abortion followed in from two to six months. In two of these cases curettement was necessary because of large hæmorrhages. In 5 cases of abortion, total extirpation was advisable, and in only 5 were surgical procedures unnecessary." This, De Strauch concludes, shows evidently that artificial abortion and artificial premature births are most dangerous and unjustifiable measures against disturbances produced by myomas during pregnancy, and have to be discarded entirely.

As indications for operation during pregnancy there are cited:

Quick growth of the myoma, 12 times;
Pain, 9 times;
Severe troubles, 8 times;
Compression, 3 times;
Hæmorrhages, 4 times;
Alvine obstruction, 2 times;
Retention of urine, 2 times;
Torsion of pedicle, 1 time;
Necrosis, 1 time;
Peritoneal irritation, 1 time;
Fever, 1 time;
Fœtid leucorrhœa, 1 time;
Previous abortion, 1 time;

Because the mother did not want any more children, 1 time (Poitevin de Fontguy, Hystérectomie abdominale pour fibrome compliqué de grossesse) (29);

Because the myoma might give rise to future troubles, 1 time;

Because of impermeability and rigidity of the cervix, 1 time.

Three times the diagnosis of an ovarian tumor was made, which appeared as a pregnant myomatous uterus during operation. Without any strict indications, operation was performed 42 times! Twice it is cited because diagnosis of pregnancy could not be made!

In contrast to these operations *during pregnancy*, he recounts the operations performed during *child bearing*. From 36 women operated upon during child bearing, 22 living children were born.

The following operations were performed: Supravaginal amputation with intraperitoneal and extraperitoneal treatment of the stump, 19 times; total extirpation of the uterus, 7 times; Cæsarean section without operation on the myomatous growth, 3 times; Cæsarean section and removal of the ovaries without operation on the myomatous growth, 4 times; Cæsarean section and myomectomy, 2 times; extirpation of the myoma squeezed into the small pelvis, by laparotomy and extraction of the child *per vias naturales*, twice.

Forty cases of births by the natural route are cited, 23 of these being spontaneous.

I must apologize because I have asked the indulgence of the reader for going a little too far into the details of this question, but the idea that the subject is doubtless of the greatest importance will justify my expatiation. I fully agree with De Strauch, that, in cases of pregnancy complicated with fibroids, the first law and motto must be: Await the end of pregnancy, if possible, having the patient under strict observation, then operate if necessary, and perform a feasible Cæsarean section with enucleation of the myomatous growth and preservation of the uterus. Exceptions to this rule are naturally cases in which the location of the fibroid produces most serious symptoms of incarceration during pregnancy, of such a nature that they cannot be overcome by mechanical displacement of the fibroid out of the small pelvis. Early myomectomy or hysteromyomectomy during pregnancy is here the proper treatment. (Ford, *Medical News*, March 31, 1900.)

In glancing over the foregoing twelve absolute indications for operative treatment of myoma, I am of the opinion that as to these points all surgeons will be in agreement. The difficulties in formulating precise axioms and the differences of opinion begin when we have cases on the borderland in which no great immediate danger gives an indication for surgical treatment, but in which, nevertheless, there exist conditions in the patient that make a removal of the growths well nigh desirable, and, even when there is no present danger, the physician who has for his motto, *in prophylaxi est salus patientis*, sees them encroaching rapidly upon his patient It is beyond discussion that, in such cases (Group C), the question of operative intervention cannot be settled by discussion, but must be left, as Dr. Macnancy expressed it at the British Medical Association at Ipswich (30), "to individual discretion," and must be treated individually, as well from the standpoint of the patient as from that of the surgeon.

Some gynæcologists state in general that so soon as the bearer of a myoma comes to a physician with pain in the abdomen, there exists indication for operation. I observed a woman, thirty-six years of age, who consulted me because of intermittent pain of great severity in the right iliac region, since an abortion one year previous. On examination, I found a fibroid of the uterus as large as a child's head, where the whole uterus was transformed into the myomatous growth; these cases, in which one cannot find a capsule, Recklinghausen calls "ball-like," or "spherical," myomas. This tumor was attached to the rectum by large adhesions, which undoubtedly originated from an inflammatory process *post abortum*. After massage and antiphlogistic treatment for two months, the uterus was movable and the patient was relieved of her pain, and, during the three following years in which I had her under observation, never complained again, nor could I find any alteration in the condition of the fibroid. In this case, it was apparent that, not the fibroid, but the adhesions, caused the pain. Furthermore, it is a well-known fact, and yet it must be stated again and again, that, in many instances, the pain of which a female patient complains is by no means proportional always to the anatomical findings; and even if the bearer of a myomatous growth is suffering from severe pain, in her opinion, and we find the slightest sign that points to hysteria, it demands all the skill and dexterity of a man, expert and familiar, not only with *one quadrant* of the human body, its diseases and treatment, but with *all* organs and their possible relationship which through themselves constitute the individual subject, to direct the treatment in a justifiable and proper line, and to spare the patient and himself unnecessary surprises. We must all assent to the statement of Mendes De Leon, at the last meeting of the British Medical Association (32), that "no gynæcologist is worthy of the name who is not, at the same time, a well-informed general physician," and, we may add, general surgeon.

I should have to go too far were I to attempt to analyze in which direction fibroids of the uterus, like other disturbances of the sexual organs, are correlated to symptoms of mental alienation from slight interferences, as neurasthenic and hysteric symptoms, to more advanced disturbances, such as mania, dementia, melancholia, etc.

I have already stated my opinion in my monograph on Retroflexio Uteri Mobilis et Fixata, its Conservative and Operative Treatment (*Iowa Medical Journal*, November, 1900), as follows: "Neurotic disturbances exist very often in a patient just as well without organic lesions in the abdomen, and hysterical symptoms exist as well in males and children as in females, but when there exist lesions in the genital sphere, it is, we believe, beyond discussion that these are able to serve as *'agents provocateurs de la neurasthénie,'* to use Charcot's words, and are able to accentuate the neurasthenic symptoms in such a manner that they become the most prominent symptoms and obscure the very *causa morbi*. Naturally it is not sufficient in such a patient to treat one of these conditions without paying attention to the other, such as to treat neurasthenia without regarding the *causa irritans*, the abdominal state. Treat everything proportionally and in combination, and you will find the result beneficial as well to yourself, as, what is most important, to the patient."

The second point which has to be considered is the individuality of the surgeon, on which I may be allowed to make some brief remarks at the close of my paper. That a surgeon who is assured of his asepsis and dexterity, the *conditio sine qua non* for good results and success, can, as Phelps (34) says in his article The Phelps Operation for Hernia and Method of Closure of Abdominal Wounds, state truthfully to his patients, that he *can* operate and guarantee that there will not be a relapse—that this surgeon should very often incline much more easily to propose operative procedures where others dally with conservative methods, is perfectly natural. When a patient comes to me with a hernia inguinalis, or crural hernia, be it a child or an adult, or with prolapse of the uterus, cystocele, rectocele, or retroflexio uteri, I do not prescribe trusses, pessaries, and other old instruments, but I advise operative treatment, convinced that the results gained by this treatment in my former operations can give myself and the patient the confidence of the promise of a radical cure, provided, of course, that there exist no contraindications against operative measures, such as old age, disease of other organs, heart and kidneys, or absolute *horror operationis* on the part of the patient. When a patient comes to me with one or more fibroids, which by themselves are the *real cause of disturbances,* and these myomata can be removed easily without total extirpation of the uterus, in agreement with the views of Maurice Richardson, of Boston (35), I remove them, and, if possible, by way of the vagina, like Goffe, of New York (36), as by this route the dangers are less, the convalescence is smoother and simpler, there is no visible scar, and there is no danger of hernia. But when the conservative method of myomectomy cannot be taken into consideration because the location or the multitude of fibroids contraindicates myomectomy, then I reserve my operative procedure, the hysteromyomectomy, selected individually, to the above-stated twelve indications. That physician who sees in a uterus *une quantité négligeable* and performs *hysterectomy* because of one or two small fibroid growths (one cannot call this surgery), thereby, without justifiable indications, throwing the individual into cachexia uteripriva, I should like to ask what he would answer if a surgeon should propose to excise his testicles because of varicocele or hydrocele testis. Remember always, that sincerity to the patient is the first step of confidence, and always be guided in your medical treatment by the proverb:

> "Deal with another as you'd have
> Another deal with you;
> What you're unwilling to receive
> Be sure you never do."

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ELEVENTH AND WELLS STREETS.

DERANGEMENTS OF THE ORGANS OF VISION, WHICH MAY BE ATTRIBUTED TO AUTO-INFECTION, OR TO AUTO-INTOXICATION.*

By J. H. WOODWARD, B. S., M. D.,
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Disturbances of vision and other abnormal conditions of the visual apparatus are often associated with both functional and structural derangements of the organs of digestion and assimilation. Such disturbances in the organs of sight may, in certain cases, be purely functional; while, in other instances, the existence of pathological alterations in those organs may be readily demonstrated. In cases of purely functional disturbances, it may be a question whether the effects are not caused by reflex action from the abdominal viscera, rather than by direct irritation of the visual organs by substances circulating in the blood. When, however, it is a question of actual structural changes in the iris, or in the retina, or in some other anatomical division of the visual apparatus, the idea of a reflex causation should be abandoned; but we may assume, even if we cannot demonstrate the fact, that those changes are due to toxic agents in the blood, or to micro-organisms that have become lodged in the affected parts. It is often possible to trace the sources of such poisonous substances to the digestive apparatus. Even though faulty elimination be responsible for the accumulation of them in the blood, it will be found, in a certain number of cases, that the real centre of the mischief is in the alimentary canal or in the liver.

It is evident that we must examine two sets of cases: (1) those in which the derangement is purely functional; and (2) those in which there is a demonstrable structural lesion.

1. Functional Derangements.

a. Neurasthenia.—Of all the common functional derangements of the system, neurasthenia is therapeutically the most perplexing. The victims of it begin with their family doctor; but, sooner or later, they drift about among the specialists in various departments, and they are commonly found haunting the waiting rooms of oculists and neurologists. You are all familiar with their general and their local symptoms. Every one has treated such patients, who complain of pain in the eyeballs, frontal headache, pain in the back of the head, vertigo, inability to read without pain in the eyes or head, blurring of sight, total failure of reading vision after a short trial, lacrymation and photophobia. The dread of natural light may be so marked that dark glasses are worn constantly; while toward artificial light the photophobia may be so extreme that the patient refuses to tolerate it at all. The ocular symptoms vary in number and intensity in the different cases. They may be noted in patients whose general condition is apparently robust. They are sometimes the first indication of the beginning of neurasthenia. I have observed them in youths, in adults, and in old people. I have seen them in people who live in the country, and in those who live in the city, in students, in laborers, in farmers, in merchants, in men quite as often as in women, in people who live indoors, and in those who are generally in the open air. The most common subjective symptoms are pain in the eyes, frontal and occipital headache, inability to use the eyes for reading, vertigo, and insomnia. The objective symptoms are usually a small error of refraction—though it may be a considerable one—and some weakness of the lateral recti muscles, in which loss of power in the interni is most marked; while, occasionally, weakness of a superior or of an inferior rectus is present.

The general symptoms need not be recapitulated. Imperfect stomach and intestinal digestion, constipation and functional disturbances of the liver, are conditions inseparable from, and persistent in, these cases.

Certain patients give a history of some great shock to, or strain of, the nervous system. Very many of those whom I have seen, however, have related no such experience. Without further specification, it may be said, in general, that all were individuals who had not devoted sufficient attention to the sort of food they were eating, or to the manner of eating it.

To my mind it has been a puzzle to understand why a neurasthenic patient should not recover more promptly, if his state was one simply of nervous exhaustion. I cannot comprehend why nerve tissue should require several years of assiduous attention to relieve it of a tired feeling. But if malassimilation and auto-intoxication are constant accompaniments, it is permissible to seek in them an explanation of the phenomena—indeed, under such circumstances, one ought to be surprised should the patients recover more promptly than many of them do. My conviction is that the greatest service rendered to his neurasthenic patients by every physician is that which aims to restore the function of their digestive and assimilative organs.

Undoubtedly, there are cases of neurasthenia in which the derangement is primarily in the nervous system. And there is a limited number of patients whose ocular and general complaints are due to anomalies in their visual apparatus. An error of refraction, a weakness of the recti muscles, or a faulty relationship of the lines of sight to one another, constitute the discoverable defects in the eyes. Proper correction of the error of refraction and restoration of an approximately normal relationship between the visual lines will put these patients on the road to recovery. Yet the goal will not be reached, even in these cases, by local measures alone. Direct ocular treatment seems to be most useful in the early days of the malady. After the condition has persisted a number of years, such treatment will not prove to be of much avail.

Eye strain is not often the cause, I believe, of either the local or the general symptoms of neurasthenia, although it is frequently an associated condition. Exceptionally, however, we do encounter rare cases of nervous exhaustion of a severe type, in which it is the predominating ætiological factor. In recent years especially, so strong has my conviction been that derangements of the processes of digestion and assimilation are the most important conditions in these cases, that I have almost invariably suggested that view of the subject to the attending physician. With my own patients, I have been particular in my attention to the abdominal viscera; and I am convinced that such success as I may have had has been achieved by acting upon the belief that the persistence of the ocular, as well as of the other symptoms, is due to a perennial auto-intoxication.

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*Read before the Society of the Alumni of the Bellevue Hospital, January 3, 1900, as a contribution to a symposium upon Auto-infection and Auto-intoxication.

b. Migraine.—Whenever a case of severe headache, associated with nausea and vomiting, is presented for treatment, perhaps the first impulse of the general practitioner is to look for the cause in some error of diet or digestion; the neurologist is apt to refer the attack to some derangement of the nerve centres; while the ophthalmologist is inclined to assume that the source of all the trouble will be discovered in some anomaly of the visual apparatus. Taking the cases as they run, it is obvious that errors in determining their ætiology must arise unless very discriminating attention is paid to the details of each of them. At the first glance, the ophthalmologist may be supposed to have the better of the argument; for disturbances of vision are a very prominent part of the symptomatology. The luminous rings, the rolling clouds, the flimmering, and, finally, the hemianopsia, all preceding the pain in the head in the gastric disturbances, naturally suggest that the seat of the malady may be found in the visual apparatus. It is well known that headache is often due to abnormal conditions in the organs of sight. Some such headaches are accompanied by nausea and vomiting. But they are not examples of true migraine. There may be errors of refraction in the eyes of the victims of migraine, and there may be anomalies of the ocular muscles as well. But, beyond relief of the headache and the asthenopia that may persist in the intervals between the attacks of hemicrania, direct treatment of the eyes by glasses or other means will not accomplish anything of a permanent nature.

Migraine presents the characteristics of a true nerve storm. It bursts upon the patient without warning and without apparent reason. The hemianopsia and the occasional tingling and paresis of one half of the body are startling phenomena, but they are transitory. The permanent hemianopsia resulting from cerebral embolism or cerebral hæmorrhage is not, as a rule, preceded by clouds or flimmering, nor is its onset succeeded by severe pains. The question, What is it that originates these nerve storms in which the vasomotor system evidently plays the principal rôle? may be answered conjecturally. I do not think that it is any condition of the eyes, nor can I conceive that it is a state of the brain. The nature of the malady, the recurrence of the attacks after periods of calm, are elucidated by the supposition that the system is being slowly poisoned. Each paroxysm represents a rebellion against such indignity, and an attempt to get rid of the noxious substance.

2. ORGANIC DERANGEMENTS.

a. Rheumatism.—Inflammation of the conjunctiva and inflammation of the sclera are both observed in acute rheumatism. That there is a rheumatic inflammation of the cornea alone is proved by experience; but, as a rule, keratitis is associated with inflammation of the iris as the principal lesion.

Rheumatic iritis occurs as an acute and as a chronic disease. The symptoms of the *acute* variety are quite intense in the pain, the photophobia, the lacrymation, the pericorneal injection, and in the tendency to plastic exudation between the iris and the anterior capsule of the lens and into the pupil. The *chronic* variety is less marked in all its symptoms. There is moderate pericorneal injection, moderate photophobia, but marked inability to use the eyes. While the formation of an exudate occurs, as in the acute cases, it is produced more slowly. In both sets of cases, cloudiness of the vitreous in consequence of irritation or inflammation of the chorioid is, I believe, the rule. The exudate between the iris and the capsule of the lens forms very tough adhesions, which atropine will usually fail to rupture, even though it is administered early in the case and thoroughly. False membrane in the pupil organizes into a resistant structure that is rebellious to treatment of every sort. In some severe cases, we observe exclusion or occlusion of the pupil, both of which interfere with the forward current of the aqueous humor toward its exit between the iris and the margin of the cornea. Accumulation of the normal humors within the eyeball will increase the intra-ocular pressure; and a rise in the intra-ocular tension induced by such mechanical obstructions is followed by an attack of secondary glaucoma, that will destroy the sight unless promptly relieved by operation.

In general, rheumatic iritis injures the eye permanently, to a greater or lesser degree. I have said that posterior synechiæ persist, but it should be noted that there are rare exceptions to this rule. Now and then, an eye recovers perfectly from an attack of rheumatic iritis. Relapses are the rule, however, and complete recovery from a relapse should not be looked for. They are not necessarily due to a reestablishment of the auto-intoxication. A sufficient reason for a recurrence of the inflammation may be found in the existence of dense adhesions to the capsule of the lens. The iris is normally extremely active. It responds to light, to convergence, to accommodation, to emotional states, and to a multitude of reflex impulses. Continuous interference with that motility by bands of organized exudate must tend to irritate and inflame an iris that has suffered from an attack of rheumatism. It is not necessary, therefore, to go outside the eye to assign the cause for the relapse. And, in order to dispose permanently of such tendencies, the strain must be relaxed by an iridectomy, or by some analogous operation.

Acute rheumatic optic neuritis and acute rheumatic inflammation of Tenon's capsule have been observed. Rheumatic inflammation of the extrinsic muscles of the eyeball is not uncommon. It gives rise to two sets of symptoms: (1) neuralgic pains when the eyeballs are moved; and (2), paralysis of one or more of the recti muscles, usually the external rectus.

Paralysis of an external rectus muscle is frequently observed. There is commonly a history of exposure to a draught of air on the affected side. The affected eye turns toward the nose, and it may not be rotated outward beyond the median vertical lines of its orbit. The patient is confused and incapacitated by the persistent diplopia, which may be suppressed only by excluding the eye from participating in the act of vision. Paralysis of this nature will yield to treatment, and should never become permanent.

b. Bright's Disease.—I do not intend to discuss at length the various phases of albuminuric retinitis, but I wish to report the history of a case of nephritis which seems to me to be pertinent to the subject we are considering:

Miss I. C. M——, of Dresden Center, N. Y., nineteen years of age, was brought to me by her father, on December 12, 1895. She had been anæmic, but in other respects her health had been good. About eleven weeks before this visit, while attending a fair, she had become constipated. On September 19, 1895, she had an attack of nausea and vomiting. On September 22d she consulted a physician, who prescribed a cathartic pill, supposed to contain the extract of belladonna. On the 23d, she took another pill; on the 24th, another; and on the 25th, she took two pills; but her bowels did not move until she had taken considerable doses of a saline cathartic. About noon, on September 25th, her sight began to fail, and by night she was blind. She complained of numbness in her hands and feet and dryness in her throat, and during the night she had a slight convulsion. Another physician was called, who noticed the wide dilatation of the pupils and other indications of the physiological effects of atropine, from which he conjectured that the patient was suffering from belladonna poisoning. The patient was confined to her bed for five weeks. The numbness in her legs lasted one week, and her hands regained their normal sensation at the end of two weeks. At the outset, her body was covered with a rash, after the subsidence of which her skin peeled. I was unable to obtain any information regarding the temperature range. The father said that she was feverish.

The patient told me that there had been a fog before her eyes from the beginning of her illness, and that, two weeks before I saw her, the blur had increased so that she could perceive light only. Upon examination, I found that her vision was perception of light. Her pupils were widely dilated and did not respond to light. Both optic discs were pale and swollen; the small blood-vessels upon them were very tortuous; no hæmorrhages into the vitreous were present. Her urine had a sp. gr. of 1010, and contained a quantity of albumin.

February 4, 1896.—She is totally blind. She complains of red and green flashes and wheels before her eyes. There is no reflex contraction of the pupils. Upon tightly blinking her eyelids upon her eyeballs and at the same time making a strong effort to see an object held between her and the light, a perceptible contraction of both pupils took place. The exudation at the optic discs is thinner, and white atrophy of the nerve may be seen through it. Two small patches of chorioiditis are found between the right optic disc and the macula. The retinal arteries and veins are diminished in size. The urine has a sp. gr. of 1009, and contains albumin and hyaline casts.

June 10, 1896.—The patient can perceive light, and she can tell when an object passes between her and the window. She has no pain, and maintains that she is perfectly well. Her general appearance is that of a healthy, though somewhat anæmic, young woman. Her right pupil is less widely dilated than the left one; but neither of them responds to light. She can contract her pupils in the manner already described. The ocular media are clear, and both discs show unmistakable atrophy. A slight exudation is still apparent upon both discs. The urine contains albumin and casts, and has a sp. gr. of 1009.

January 20, 1897.—Her condition is unchanged.

In September, 1899, I was told by a patient from the same town that the young woman was still alive and totally blind. I am informed that the father brought a suit for malpractice against the physician who prescribed the pills, contending that they had blinded his daughter by poisoning her with belladonna.

c. Intra-ocular Hæmorrhage.—Dark objects floating across their fields of vision are seen by a large number of patients. The specks before the eyes so often complained of in functional disorders of the liver are unimportant save in this, that their existence has made it possible to suppose that other and more profound derangements are of the same nature. The *muscae volitantes* of hepatic disorders are superficial, but they are confounded with floating particles in the vitreous which are due to congestion or inflammation in the retina or chorioid, or to rupture of capillaries in those structures. Such minute extravasations are often a consequence of disturbances in the alimentary canal; and, in order to obviate a repetition of them, which might prove to be a permanent injury, it is essential that this fact in their ætiology should be generally recognized. Hæmorrhages of considerable magnitude into the vitreous, occasioned by straining at stool, have been observed, I suppose, by every physician. Floating particles in the vitreous are encountered, for example, in nephritis, in diabetes, and in simple plethora. In every case it is necessary to direct our chief attack upon improper diet and imperfect digestion and assimilation, if we are to succeed in averting that which such ocular manifestations commonly portend; namely, a destruction of function in the affected organs, or the supervention of a cerebral apoplexy.

With this *résumé* of the more common disturbances of vision that are encountered in cases of auto-intoxication or auto-infection, I shall conclude this paper. Among the topics that have been omitted are diabetes and gout. But, for the reason that the ocular symptoms in those diseases appear to me to be more properly subjects for discussion before a society of ophthalmologists, I shall not bore you with a repetition of them.

58 West Fortieth Street.

THE TREATMENT OF TRACHOMA BY EXPRESSION, WITH SPECIAL REFERENCE TO THE RECURRENCE OF THE DISEASE.*

BY THOMAS R. POOLEY, M. D.,
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THERE seems to be an almost universal tendency in the minds of the profession to exaggerate the merits of a new remedy or surgical procedure, and notwithstanding the many instances in which disappointment has resulted after more mature deliberation and later experience, the habit recurs with each announcement of a new drug or operation.

To illustrate the truth of this statement, we need go no further than to enumerate some of the multifarious remedies and surgical procedures that have been exploited for the cure of the disease we are to consider tonight. The list is a long one and it will suffice to mention only a few: silver nitrate, copper sulphate, tannin, jequirity, inoculation, etc.

Among the surgical methods, grattage, revived in this country by Weeks and Marple, is perhaps the oldest and the worst; the galvanocautery, electrolysis, excision of a strip of conjunctiva containing the granules, curetting, peritomy, and, lastly and more recently, the expression of the granules with roller or other forceps.

It is not within the proposed scope of this paper to go into the historical and technical details of these various operations. This has been well done by Knapp in the *System of Diseases of the Eye* (Norris and Oliver), chapter on Operations. Some of them are good, some are bad. Most of them, except the one we have under consideration, have gone out of use—"have had their little day and ceased to be."

Of all these procedures the one which seems to have best stood the test that at last "sets all things right," is the operation of expression. This method, however, has its limits. It is only applicable to the form of granulations described by Knapp as simple or noninflammatory trachoma. This form of trachoma presents itself without symptoms of discomfort or inflammation, except, perhaps, of a trifling kind, and on inspection shows numerous hyaline and sagolike granulations confined to the retrotarsal fold and palpebral conjunctiva; none in the fornix or ocular conjunctiva. It is to be distinguished from follicular conjunctivitis, which occurs only in the lower retrotarsal fold. Some of the very successful and easily cured cases may have been of this latter nature.

In the opinion of the writer, the more strictly the operation is confined to the kind of trachoma just described, the better will be the results, while the extension of the method to the inflammatory types and later stages of the disease—although this has been recommended in their treatment—will invariably vitiate the good results.

It being the main object of this short communication to bring out in the discussion which may follow, the experience of those who may do me the honor to participate in it, I will at once take up this question, and defer the other questions which I may discuss, to the end of the paper.

During the years from 1891 to 1900, 106 operations were made in the New Amsterdam Eye and Ear Hospital by the writer and his colleagues. Very many of these patients disappeared a few weeks after the operation and were lost to further observation. Whether, therefore, they made a complete recovery or not, remains doubtful. It must be the experience of all, that it is very difficult to keep on the track of dispensary patients; but all those who did return made complete recovery, with perhaps occasional slight relapses, except in ten cases, in which severe relapses took place. In two of them, secondary, and in one, a third operation was done, but these were again followed by a relapse.

Two of the worst cases of recurrence of the disease occurred in inmates of an institution for the care of children, and the disease may have been aggravated by contamination from another case of an infectious type. However, in both of them, the treatment not only did no good, but in each instance the relapse was worse than the original attack.

In one of the other cases, the operation was followed by an immense amount of swelling and hypertrophy of the conjunctiva, and the trachomatous process developed again almost under our very eyes. All of the cases operated upon were kept under our eyes as long as possible, but as their attendance was determined by their inclination or that of their parents, it would seem impossible to keep very correct statistics. Those cases in which severe relapses occurred, were the only ones which could be with accuracy determined. These would show about nine per cent. of improvement or recovery.

I think it but fair to leave a considerable margin for recurrence of the disease through neglect of the patient to return for after-treatment, at least, in so far as there was return of some granulations which were not, however, sufficiently annoying to the patient to bring him back for further treatment.

In 1892-93, in a lecture in the Polyclinic, the present writer said: "To cure a disease like this (trachoma), which is essentially a chronic one, in a single operation, the duration of treatment being only two or three weeks, is certainly a marvellous improvement upon our usual methods."

In 1891, in the *Twenty-seventh Annual Report of the American Ophthalmological Society,* Knapp writes: "This method triumphs, in the cases of densely packed spore-like granulations before the cornea is affected and scars are formed. These cases are completely and permanently cured in one sitting, however dense and extensive the deposition of granules may be. The other forms of trachoma, when there is more or less inflammatory secretion of the conjunctiva, or distinctly hyaline infiltration between cicatricial tissues, are greatly benefited by the squeezing, but it is advisable to follow up the operation by the use of nitrate of silver or the application of copper crystals."

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*Read before the Section of Ophthalmology and Otology of the New York Academy of Medicine, November 19, 1900.

In the discussion that followed the reading of this paper, the optimistic opinion as to the value of this method and the quickness of cure effected thereby, seems to have been pretty generally accepted.

I have since then moderated my opinion as to the value of this mode of treatment in effecting a cure in every case, or even in such a large percentage of cases, although I am still of the opinion that it is the most valuable aid in the cure of this disease, that is known to me. Knapp, too, in a later publication on this subject (the chapter on Operations in the *System of Diseases of the Eye*, by Norris and Oliver), seems to have somewhat modified his opinion concerning the value of this method, and we quote his remarks as to the result and value of the different methods: "I may say that the mechanical treatment of trachoma does not supersede the medicinal, which supplements it most beneficially in bridging and facilitating recovery"; "Expression does this efficiently and more gently and with better preservation of the conjunctiva, than all the other methods."

It would appear from these two quotations, one written in 1891, the other in 1898—seven years later—that Knapp had also somewhat modified his prognosis as to the value of this method.

Now a few words as to the method of operating. The operation consists in the thorough and complete expression of all trachomatous granules without injury to the conjunctiva. An anæsthetic should be always used, as the operation is both painful and protracted. In the beginning, the writer always used, for the expression of the granules, his thumb nail, rendered properly aseptic, and also in the first few cases applied the solid stick of sulphate of copper after the operation, rubbing it thoroughly in, although both of these procedures were afterward abandoned; since gaining in experience in the performance of expression, the use of the roller forceps devised by Dr. Knapp has been resorted to in every instance.

In removing the granules from the angles, cilia forceps have been found more useful than any other instrument.

The further progress of the operation as practised, is exactly the same as that described by Dr. Knapp (*loc. cit.*) except that two forceps are used—one a fixation forceps, to fix the lid; the other, to do the squeezing. Both eyes are always operated upon at the same time. Repeated experience has shown that the after-reaction is not much to be dreaded. There is usually only slight swelling of the lids, in some cases some slight conjunctival hæmorrhage. The patient is permitted to go home immediately after the operation and is directed to make application of cold compresses, and to wash his eyes several times a day with a saturated solution of boric acid. In most instances it will be found, for the first few days after the operation, that the conjunctiva will be slightly coated with mucus or coagulated fibrin.

Immediately upon the subsidence of these symptoms, the lids should be gently touched with sulphate of copper two or three times a week, and this should be continued as long as there seems to be the slightest tendency to relapse, or, to speak more explicitly, as long as there is any hypertrophy of the conjunctiva remaining.

In no instance can the cure be considered as effected when the operation is made, but it must always be supplemented by local treatment for a period varying from a few weeks to a few months; and the time for each patient is determined by the appearance of the conjunctiva, and not according to any fixed rule.

In the light, therefore, of his later experience, the writer would summarize his conclusions as to the value of this method of treatment of trachoma as follows:

1. Of all the mechanical methods that have been devised for the treatment of trachoma, it may be said that expression in suitable cases is the most efficient remedy yet discovered; effecting, in a large percentage, a more or less complete cure with better preservation of the conjunctiva than any of the other methods hitherto described.

2. It must, however, in every instance, be carefully followed up by local treatment until all tendency to relapse has disappeared.

3. The success of the method depends upon the conscientious removal, so far as possible, of all the trachomatous bodies without injury to the conjunctiva.

4. In any event, so far as the writer's experience goes, more or less frequent relapses will occur.

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CYSTS IN THE LIGAMENTUM LATUM: THEIR KINDS AND LOCATION.

By BYRON ROBINSON, M. D., B. S.,
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The following remarks are based on the recorded examinations of one hundred ligamenta lata.

1. *Supraoviductal Cysts.*—Directly on the proximal or internal surface of the oviduct about its middle, one frequently observes a single-chambered cyst, containing a clear watery fluid. It is nonpedunculated and about the size of a small grain of rice or a sago kernel. It is mobile with the peritonæum on the tunica fibrosa of the oviduct and belongs to the ligamentum latum. It is covered by a single layer of peritonæum. Seven per cent. of supraoviductal cysts were found in the one hundred subjects.

2. *Cysts of the Diaphragmatic Band.*—The terminal cyst of the pronephritic duct (ureter); the hydatid of Morgagni, a cyst of varying pear shape and size. It may reach the size of a plum. Its stalk varies from one-half to one-twelfth of an inch in length and generally arises from one of the fimbriæ of the pavilion. It may arise from the proximal end of the oviduct, or peripherally from the proximal anterior surface. It arises from

the diaphragmatic band of the Wolffian body as is well seen in young pigs' embryos. Its muscular wall resembles that of the oviduct. However, it must be stated that this cyst (hydatid of Morgagni) is a very indefinite structure. The more study one devotes to it, the more it vanishes as a distinct organ. The one hundred cases gave six per cent. of this cyst.

3. *Cysts of the Mesonephritic Uriniferous Tubules* (Cyst of the parallel tubes of the parovarium).—Cysts may arise directly from the parallel tubules (uriniferous) of the mesonephros. These cysts may develop later between the blades of the ligamentum latum and form a pedicle which remains intact, or the cyst may rotate off its pedicle and become free in the mesometrial subserosa. This is the so-called intraligamentous cyst, and may reach the size of a child's head. Dr. W. Mackellar and I removed one having a pedicle seven inches long and a body as large as the head of a child of six years of age. Such large intraligamentous cysts distort the blood and lymph circulation and disturb the peritonæum, thickening and whitening it.

In general, such cysts are bean-sized, thin-walled, and lined with ciliated columnar epithelium, and contain a thin, serous fluid. Some intraligamentous cysts may become so large that they will not remain in the pelvis, and they contain albuminous fluid. Any cyst of the ligamentum latum may become rotated off its pedicle, and, by developmental changes and change of position, may be dislocated to almost any point of the ligamentum. This cyst occurred in thirty-eight per cent. of one hundred subjects.

4. *Cyst of the Mesosalpinx.*—Cysts which lie between the layers of the broad ligament, located especially between the mesonephros with its duct (ureter) and the oviduct. Such cysts are found, however, not only in the mesosalpinx, but in the mesometrium. They are single-chambered, small in size, contain a clear fluid, and are covered by a single layer of endothelium and may sometimes be enucleated entire from the mesometrial subserosa. These cysts may be very numerous and may spread over almost the entire mesometrium, especially over the anterior blades. I have sometimes counted twenty or thirty such cysts, which may be very small in size when numerous, but distinctly microscopic. One hundred subjects furnished twenty-five per cent. of this cyst.

5. *Hydroparasalpingeal Cysts.*—The cyst of the accessory oviduct consists of the fimbriated closed end becoming dilated, which appears to me from my examinations to be quite a frequent condition. They are the size of a pea or bean, contain straw-colored fluid, and present a club shape, or often a kidney shape, with the accessory oviduct as a stalk inserting itself like a ureter in the pelvis of the kidney. These are pronephritic cysts, and were first accurately described by Kossman. I have carefully examined such cysts microscopically, and all specimens have proved conclusively to me that they are of pronephritic origin. There were twenty-five per cent. of such cysts in one hundred subjects.

6. *Cysts of the Mesonephritic Duct* (*Gärtner's Duct or Ureter of the Second Kidney*).—This is a cyst in the ligamentum latum, myometrium, or the vaginal wall. It is a remnant of the mesonephritic duct or ureter, or Gärtner's canal. It is generally recognized that the mesonephritic duct, or ureter, courses through the mesosalpinx and myometrium. The best animal I know to examine for the mesonephritic duct, or Gärtner's canal, is the cow; the pig, however, is a good example. In the cow, the distal end of the mesonephritic duct, or Gärtner's canal, terminates between the external os and the vaginal vault. It may extend distally in the vaginal wall. In man, it ends at an uncertain point, some suppose in Skene's (paraurethral) ducts. I have operated on vaginal cysts in the lateral walls of the vagina, which were doubtless remnants of this canal. In general, the mesonephritic duct, or Gärtner's canal, passes from the mesonephros, *i. e.*, the parovarium, through the mesosalpinx to the lateral wall of the corpus uteri, when, like the vas deferens of man, it passes in a single spiral course through the corporeal and cervical myometrium. In the pig or the cow, one can note the mesonephritic duct assuming a curved course in the mesosalpinx from the mesonephritic parallel tubules to the lateral uterine wall. The canal may be irregularly interrupted by atrophy or even entire obliteration, when it presents the appearance of a string of beads. The obliterated atrophic points on the mesonephritic duct (Gärtner's canal) are irregular, but are chiefly situated midway between the emptying of two parallel mesonephritic (uriniferous) tubules. The mesonephritic duct atrophies irregularly, with irregular segments, in both the cow and the pig, as well as in woman, and also the relics of the duct become irregularly cystically degenerated. The mesonephros, and especially its duct, is not so prominent in man.

I have, however, operated on a woman who had some five cysts, as large as big oranges, strung like a row of beads on Gärtner's duct. The cyst of the mesonephritic duct possesses a twofold cubical or short cylindrical epithelial layer, which is immediately surrounded by a fibrous layer, and, finally, a muscular layer encloses both the epithelial and fibrous layers externally. In one case, that of a subject twenty-five years of age, a secundipara and pregnant four months, I removed from the right vaginal fornix a cyst as large as a turkey's egg, and a plum-sized cyst on the left side in the vaginal fornix. The cysts contained a clear amber fluid and were lined by typical beautiful endothelium, presenting on the application of silver nitrate (one to four hundred) the typical endothelial lines, *stomata vera et spuria;* and by denuding the endothelium by gently brushing it, vast lymph channels and beds came into view.

In the one hundred cases, thirty per cent. of the subjects had cysts in the mesonephritic ureter, or Gartner's duct.

7. *The Lymph Cysts of the Ligamentum Latum.*—At the proximal and external surface of the oviduct, between the blades of the ligamentum latum, are frequently formed one or more cysts. They are mostly bilateral or symmetrical in both ligamenta lata, and situated along large plexuses of blood and lymph vessels, especially at the junction of the oviduct and ligamentum fimbriæ ovaricæ. Fabricius asserts that these cysts are simply dilated lymph vessels. They are lined with endothelium and contain a clear serum, possess a very thin wall, and are easily broken. I have found these cysts most frequently when the ligamentum latum is disturbed in its circulation (blood and lymph) by tumors, and by disease as myoma, ovarian and parovarian; perhaps congestion from tumors and disease overnourishes the lymph vessels and dilates them. These cysts occur of the size of a bean, a plum, or a hen's egg, and frequently appear white in color, like fish bladders. The situation of this cyst or these cysts is quite constant along the fimbriæ ovaricæ. One hundred subjects showed twenty-five per cent. of such cysts.

8. *Chiari's Cysts.*—Chiari describes a cyst in the myosalpinx at the isthmus, which is the result of intense catarrh of the oviducts. The endosalpinx, on account of intense endosalpingitis, invaginates into the myosalpinx, producing a nodular formation in the hypertrophied muscularis. I have not been able to confirm the nodular formations of the cyst as reported by Chiari. The nodular formations, being glandlike, might degenerate into cysts.

9. *Kobelt's Cysts* are found in Kobelt's ducts or tubes. In general appearance the first might be called the proximal end cyst of the mesonephritic duct. There are, however, generally several of these cysts, and they all arise from the proximal end of the mesonephros. They are characterized by a retort or bean shape, and are of the same composition and contents as those of the mesonephros. Frequently, the cysts may be seen directly connected with the proximal end of the mesonephros. Such cysts are of the size of a bean or a pea, and pedunculated or not. This cyst occurred in forty-five per cent. of the one hundred specimens.

10. *Cysts of the Proximal End of the Oviduct.*—In examining a large number of female genitals, one notes at rare intervals a peculiar cyst on the proximal end of the oviduct. The cyst is of the size of a plum or a hen's egg, contains a clear amber fluid, and, towards its base, its peritoneal covering shows whitish or cloudy conditions from lymphangeitis due to trauma. Its pedicle is quite broad and it is immediately connected with the oviduct rather than with the ligamentum latum. Generally, all the fimbriæ of the pavilion are free. It is difficult to classify this cyst, or to explain its origin. Dr. Zedel describes a cyst at the proximal end of the oviduct, which no doubt is the same peculiar identical cyst, and he remarks that transverse sections of both oviducts of the genital which possess this cyst show endosalpingitis. The myosalpinx cannot be traced into the cyst wall, but there is no sure line of demarkation between the wall of the oviduct and the origin of the cyst. The line is, perhaps, obscured by the lymphangeitis observed in its pedicle. In cases under my observation, the examination of the ovary proved negative and showed it to be unconnected with the cyst. The most typical cyst of the proximal end of the oviduct that I have ever seen was in a nullipara, twenty-two years of age. It was the size of a hen's egg. Dr. Zedel suggests an inflammatory origin, in which two peritoneal areas coalesce and finally result in a cyst. It appears to me that this rare form of cyst arises from the mesonephros or pronephros, and, through later growths—changes in the ligamentum latum—suffers dislocation. Localized peritonitis (lymphangeitis) is very liable to occur at the proximal end, or pavilion, of the oviduct and to be peritoneal. Invagination and the coalescence of constricted spaces lined with endothelium may arise, and, by subsequent secretions, form a cyst. But it is difficult to see how such a cyst arising from peritoneal adhesions could finally become so free in movement and smooth on its surface. Zedel found certain epithelial remnants in the cyst wall, which might have been inclusion residues from the epithelia of the fimbria ovarica caught during the inflammatory process. It would appear that cysts could arise from perisalpingitic membranes, and, through the influence of progressive inflammatory processes, lead to a proliferation of endosalpingeal cylindrical epithelium and peritoneal endothelium, which can invade the walls of the oviduct by invagination and end in cyst formation. Two per cent. of these cysts occurred in one hundred subjects. The cyst shown in Fig. 3 is drawn from the case of a girl, twenty-two years of age, and presents quite well the relations of the cyst with the ligamentum latum, oviduct, and fimbriæ of the pavilion.

11. *Cysts under the Perisalpinx.*—Their origin is due to dislocated cylindrical epithelium of the ovary, as originally described by Dr. Josef Fabricius. The situation of this cyst is in the subserosa of the salpinx or in the myosalpinx. The cyst may be found in other portions of the genitals. Dr. Fabricius notes that all these cysts are accompanied by perisalpingitis or perimetritis and other subserous inflammations. The cyst takes the form of a tubular gland, lined with cylindrical epithelium. The invaginated tubelike glands secrete fluid and assume a cyst form. The pressure from secretion may produce degeneration in the cylindrical epithelium, and this will not take on color. The cyst may vary from the size of a hemp seed to that of a poppy head. These cysts may arise: first, from inflammation of the peritonæum inducing germinal exothelium, which might invaginate, become constricted, and end in cystic formations; second, from dislocation of the ovarian cylindrical epithelium, which might invaginate, become constricted, and end in

cystic degeneration. The transformation of endothelium into epithelium is known to occur in different places, as Paltauf shows in the pericardium.

To recapitulate: The cyst of Fabricius may occur under the serosa of the oviduct, the ligamentum latum, and the uterus. It arises from peritonitis, which irritates the endothelium so that it proliferates and becomes transformed into epithelium; or from dislocation of ovarian epithelium, which may be found in patches on the ligamentum latum. The proliferated epithelium, under the influence of inflammation, invaginates, becomes constricted off, and ends in cystic formation. The gland-like tubes may be straight, or dilated into an oval or irregular shape by fluid pressure. The tubes lined with cylindrical epithelium do not penetrate the myosalpinx easily, on account of its hardness, and the tubes assume devious courses according to opposing forces.

Inflammation produces cysts by starting a change in the epithelium, which finally forms closed cysts by invaginations under the serosa and in the myometrium and myosalpinx. The endothelium becomes transformed into cylindrical epithelium, forming glandular tubes under the influence of inflammation. The numerical estimation of these cysts was not attempted.

After considerable experience in microscopic sections of the female genitals with ample material, I am convinced that the cysts in the walls of the oviduct are far from being, all of them, due to invaginations of the peritonæum, subsequent constriction, and transformation into epithelium. In sections of some oviducts in proximity to the angle between the oviduct and the uterus, one occasionally secures cross-sections in which it appears that there are several lumina of the oviduct, besides other spaces, slits, and circular lumina, lined by cylindrical epithelium. Many of the epithelial lined spaces were certainly never invaginated, but are remnants of the pronephritic duct—multiples. They may be remnants of the mesonephros, but are more probably from the pronephros.

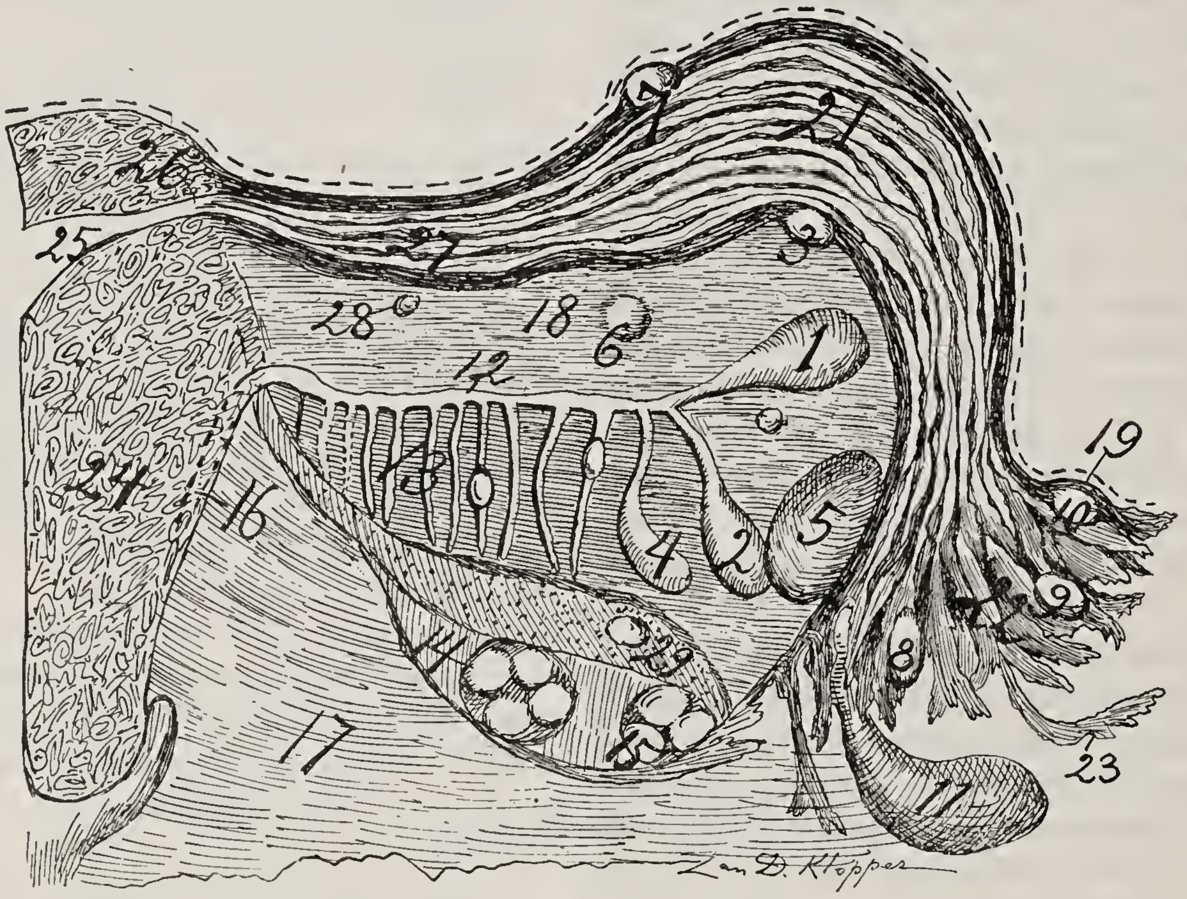

FIG. 1.

Dr. Zedel's cyst at the proximal end of the oviduct perhaps belongs to this class. Zedel, however, thought that it arose from peritonitis and subsequent coalescence constricting off a segment of peritonæum that ended by becoming a cyst. Perhaps the cyst of Dr. Zedel and Dr. Fabricius is of peritonitic origin. The cylindrical epithelium, which Dr. Zedel found in the cyst of the proximal end of the oviduct, might have arisen from included and dislocated epithelium of the fimbria ovarica. It could also have arisen as explained by Fabricius, namely: 1, by inflammation of the peritonæum; 2, by inflammatory influences transforming the flat endothelium into proliferating cylindrical epithelium; 3, by the invagination of the epithelium into the subserosa and by its becoming constricted off as a closed gland-like tube; 4, by the closed spaces, lined with cylindrical epithelium, secreting fluid and ending in a cyst formation.

It is not easy, however, to distinguish positively between an invaginated epithelial cyst and one from vestiges lined with cylindrical epithelium. In all late developed organs, defects and multiples are liable to occur.

12. *Cyst Fragments of the Adrenal in the Ligamentum Latum.*—The adrenal, like other organs especially associated with the variable Wolffian body, is liable to irregular development and fragmentary dislocations. This is of prime importance to the gynæcologist, as the normal and pathological fragments are liable to be found in the ligamentum latum which once covered the Wolffian body and with development and growth carried the fragments to different localities. This is not unreasonable, because

the normal development of the adrenal is intimately associated with the development of the genitals. The wide distance of the adrenal from the genitals is a matter of adult life only. The adrenal, like the spleen and genitals, is prone to form accessory organs which may become dislocated from their original site. Dislocated adrenal tissue and accessory adrenals may be found at varying points from the original site of the adult ovary in the ligamentum latum.

It is important to the gynæcologist to know that, anatomically and physiologically, remnants of the adrenal may exist in the ligamentum latum, as such remnants may develop cysts and tumors between its blades. It has long been known that dislocated fragments of adrenal tissue may exist in other localities than the genitals, as in the substance of the kidney and in the solar plexus and renal plexus respectively. Rokitansky (1861), Wallman (1859), and Kühn (1866), reported similar dislocations of the adrenal tissue.

Klebs, in the *Handbuch der pathologische Anatomie*, reports accessory adrenal in the kidney substance and under the renal capsule. Grawitz (1883) reports similar cases. Schmol (1891) found accessory adrenals in the right liver lobe in four adults. In fact, as the statistics of Schmol, Ulrich, Hildebrand, and Emil Rossa demonstrate, the dislocated adrenal tissue is of frequent occurrence.

Dislocated adrenal tissue may suffer pathologic changes producing cysts or tumors.

Marchand (1883) first described an accessory adrenal in the ligamentum latum in two new-born children and in one child from three to four months old.

The dislocated adrenal tissue is generally located between the blades and near the free border of the ligamentum latum, adjacent to the ovary, and in the plexus of veins from which the ovarian vein springs. Chiari (1884), Dagonet (1885), Beneke (1891), and Ulrich (1895) described cases of adrenal tissue dislocation in the ligamentum latum. The dislocated or accessory adrenal appears to cluster along the ovarian vein extending distally into the ligamentum latum. Hence, during the past two decades, accessory adrenals or adrenal tissue have been found by numerous observers in the female fœtus, the new-born, the girl, and the adult woman, situated between the original site of the normal adrenal and the ligamentum latum.

The situation in which to seek dislocated adrenal tissue is along the sympathetic plexuses of nerves, veins and arteries intimately associated with the development of the Wolffian body, such as the solar and renal nerve plexuses, ovarian, renal and suprarenal veins, and the ovarian, renal and suprarenal arteries. The dislocated adrenal tissue will occur on these structures in all directions. Dr. Emil Rossa, to whom I am indebted for his excellent labor, makes several excellent microscopical reports of dislocated adrenal tissue in the ligamentum latum in the region of the ovary. The diagnosis of the adrenal tissue in the ligamentum latum can be made with the aid of the microscope only. The following points distinguish adrenal from mesonephritic residues. The mesonephritic remnants retain throughout the individual existence the form of gland-like tubes or hollow structures, lined by single-layered epithelium, and always possessing distinct tunics—a connective tissue non-muscular wall; while the adrenal remnants lack the above factors.

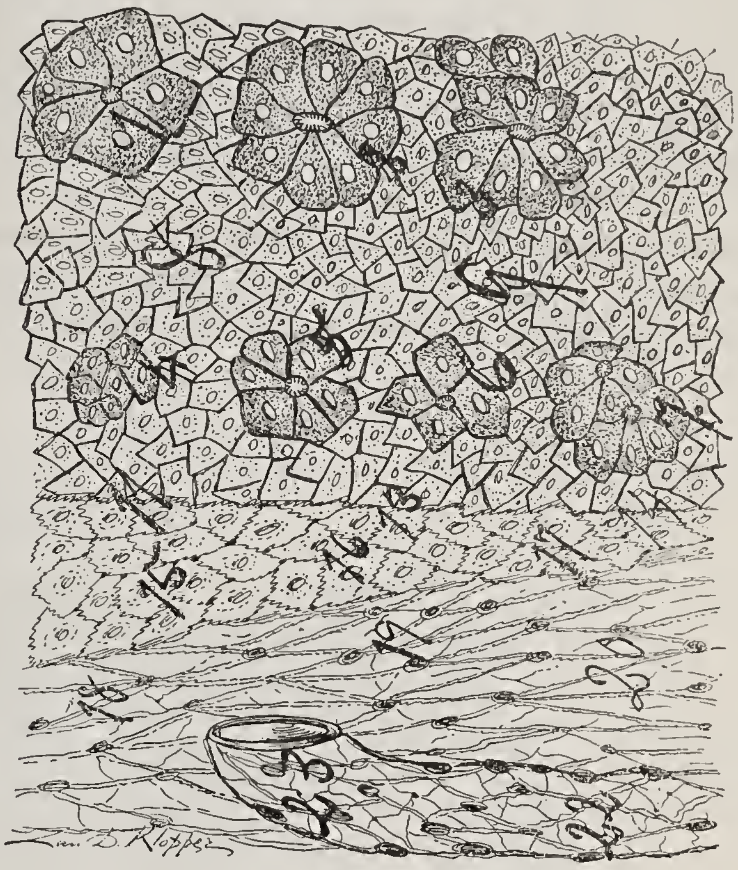

Fig. 2.

The microscope shows in adrenal rests of the ligamentum latum, characteristic adrenal tissue, rich in vascularity of the capillary type. The adrenal remnants lie under the peritonæum, the cells exist in groups or heaps resembling epithelial structures. The masses are either solid or possess slit spaces or cavities. The compact form contains round or polygonal cells with clear protoplasm and relatively larger nuclei. The cell masses show on the periphery smaller cells situated within no visible intercellular substance, while those in the centre are larger, and are separated by structureless intercellular substance.

Adrenal tissue exists at all ages in the ligamentum latum, mostly in (a) fœtal and childhood life; it is perhaps slightly reduced at (b) puberty; (c) is highly nourished at menstruation, and (d) gestation; (e) at the menopause it begins to atrophy and fade out of existence from lack of blood supply. The genital vascular circle fades away.

The life and activity of adrenal tissue in the ligamentum latum depends on the life phase and activity of the spiral segment of the utero-ovarian vascular circle. In senility, the vessels disappear from the adrenal cell groups and atrophy, shrinkage and distortion of cell arrangement resulting. The loss of vessels marks the beginning of degeneration in the adrenal tissue of the ligamentum latum. It is difficult, microscopically, to recognize and identify adrenal remnants in regressive metamorphosis.

Emil Rossa asserts that cystic degeneration of dislocated adrenal tissue in the ligamentum latum appears on the posterior blade. On the contrary, according to my investigations, almost all other cystic degeneration of the ligamentum latum appears on the anterior blade.

Epithelial structures occur immediately under the serosa of the posterior blade of the ligamentum latum. The structures are partly compact heaps of epithelial cells, and partly cystic spaces surrounded by epithelial cells. Several authors, such as Holl, Paltauf, and Rossa, are unable to explain their nature or origin. Emil Rossa believes that these epithelial cells are dislocated adrenal residues.

The signification of adrenal tissue in the ligamentum latum is the tendency to pathologic changes. The adrenal tissue may form tumors or cysts, which will explain one of the many forms and supposed origins of cysts of the ligamentum latum.

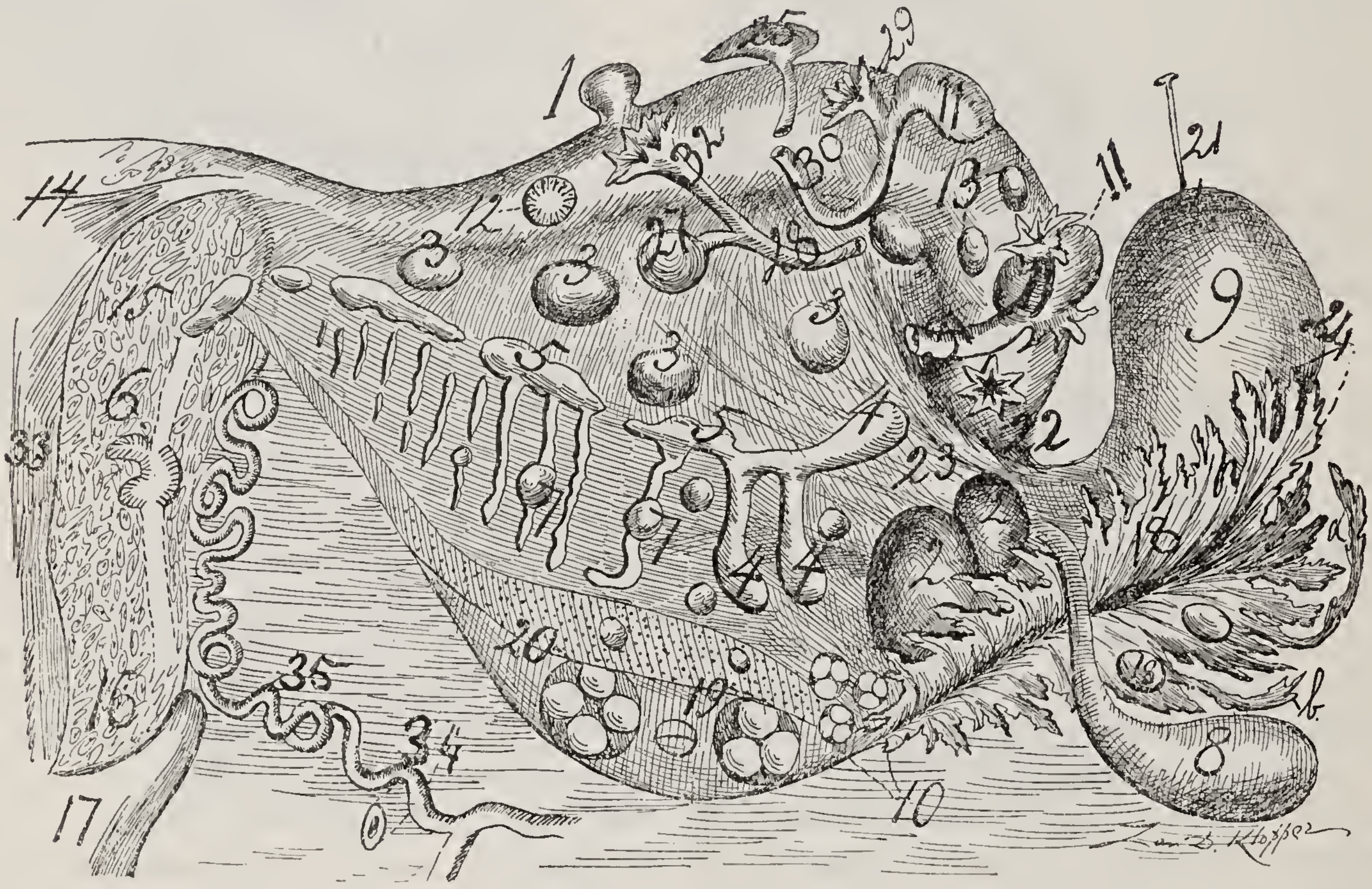

FIG. 3.

I know of no percentage estimation of adrenal tissue existing in the ligamentum latum.

Adrenal cysts are situated chiefly along the ligamentum fimbriæ ovaricum (blood vessels).

13. *Cysts of the Fimbriæ* are far less frequent than I had supposed from perusing the literature of older investigators. They are located on the mucosa of the fimbriæ and are about the size of duck shot. They are partly transparent and are hard to palpate.

The Macroscopic or Visible Cysts of the Ligamentum in 100 Subjects Constituted 90 per cent.

They were distributed approximately according to the following table:

CONTENTS OF THE LIGAMENTUM LATUM.	1.—PRONEPHROS.	1. Hydro-parasalpingeal cysts	25 per cent.
		2. Lymph cysts	25 per cent.
		3. Cyst (hydatid) of Morgagni	6 per cent.
		4. Cysts of the proximal end of the oviduct	2 per cent.
		5. Cysts of the fimbriæ	2 per cent.
		6. Cysts under the perisalpinx	——
		7. Chiari's cyst	——
	2.—MESONEPHROS.	8. Kobelt's cyst	45 per cent.
		9. Cysts of the mesonephritic uriniferous tubules	38 per cent.
		10. Cysts of the mesonephritic-duct	30 per cent.
		11. Cyst of the mesosalpinx	25 per cent.
		12. Supra-oviductal cysts	7 per cent.
	3.—Adrenal Fragments.	1. Cysts. 2. Tumors. 3. Granular bodies.	
	4.—Ovary.	1. Primary. 2. Secondary.	

Description of Cuts.

Fig. 1 (Author). This cut illustrates the common position of cysts of the ligamentum latum. 1 and 2, Kobelt's cysts. 3, 28, 18, cysts of the mesosalpinx. 7, supra-oviductal cyst. 5, lymph cyst. 13, cyst of the mesonephritic uriniferous tubes. 16, mesonephritic duct (ureter) in the uterus. 17, mesometrium. 14 and 15, cysts of the ovary. 8, 9, 10, cysts of the fimbriæ. 11, so-called hydatid of Morgagni. 12, mesonephritic duct (Gärtner's duct). 23, elongated fimbriæ. 21, endosalpingeal folds. 25, uterine horn.

Fig. 2 (Author). The lining membrane of a vaginal cyst, which doubtless arose from the mesonephritic duct (ureter). The vaginal cysts were arranged bilaterally, extending from the cervix to the introitus vaginæ. The subject was in the third month of her second pregnancy.

The membrane has all the characteristics of a serous membrane (peritonæum). 8 and 9 represent a non-traumatized field of endothelium with two rows of stomata vera, which open into subserous endothelial lymph channels lying between muscular bundles. 1, 2, 3, a row of large stomata vera lined with polyhedral granular nucleated cells. 4, 5, 6, and 7, another row with apparently smaller highly stained granular endothelial cells surrounding the mouth or stoma verum. The stomata vera are surrounded by endothelial cells, which are not only larger than the common adjacent endothelium, but they take on the silver nitrate stain vigorously, becoming under long exposure to sunlight quite brown. 11, 13 and 14 indicate the line where the brush desquamated the superficial common surface endothelium. 15, 16 and 17 mark the field of lymphatics lying immediately under the common surface endothelium. The endothelial enclosing lymph spaces are known by their sinuous outlines. 18, 19 and 20 indicate a deeper lymph channel, with elongated spindle-shaped endothelium drawn under a high power. The stomata vera may be observed at the common junction of several lymph endothelia. Observe under a high power that the interendothelial line (in the field of 18, 19, 20) becomes distinctly two lines. 22 and 23 are an unusually uniform lymph vessel. Most subendothelial lymph vessels are irregular and possess valves and present a non-uniform calibre. Note the stomata vera on the walls of the lymph vessels. This specimen was stained with ½ per cent. silver nitrate, at first in the shade and, later, in bright sunlight. It was taken from a cyst wall about the size of a hen's egg.

Fig. 3 (Author). This drawing presents the common location of cysts in the ligamentum latum. 1, supra-oviductal cyst. 22, lymph cysts. 33, cysts of mesosalpinx. 44, Kobelt's cyst. 55, cysts of the mesonephritic ureter (Gärtner's duct). 6, cyst from remnants of the mesonephritic ureter (Gärtner's duct). 7, cysts of the mesonephritic tubules. 8, hydatid of Morgagni. 9, cyst of proximal end of the oviduct. 10, cyst from dislocated adrenal remnants. 11, cysts connected with accessory oviducts. 12, cyst from invagination of endothelium (or perhaps from rests of the mesonephros). 13, cyst on oviduct. 14, 15 and 16, myometrium. 17, vaginal fornix. 18, cyst of fimbriæ. 19 and 20, ovary with cysts. 21, hook in cyst of proximal end of oviduct. 22, accessory oviductal ostium. 23, stalk of cyst of proximal oviductal end being dragged on, both from the mesosalpinx and the oviductal fimbriæ. 24, serous surface of fimbriæ fixed to cyst. 25 and 27, cysts connected with accessory oviduct. 28, 30 and 31, stalks of accessory oviducts. 33, cavum uteri. 34, ureter passing distalward. 35, the uterine artery.

Physicians of Penn Yan, N. Y., Organize.—The physicians of Penn Yan, N. Y., have organized into a society, and have adopted a fixed scale of fees, which all members must adhere to.

THE PREVENTION OF NAUSEA AND VOMITING DURING ANÆSTHESIA.

By LOUIS J. HIRSCHMAN, M. D.,
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One of the most annoying things in connection with the administration of chloroform and ether as general anæsthetics is the almost invariable nausea and vomiting produced by their inhalation. The patient, if a person of extremely nervous temperament, is usually nauseated when the administration of the anæsthetic is started; or, if he is a person of strong and robust build, during the stage of excitement. He may escape, however, until the operation is well under way, when, if allowed to come out of the anæsthetic for any reason whatever, he invariably begins to gag and usually to vomit. In quite a number of cases, there is no trouble until the patient is returned to his bed, and allowed to recover from the influence of the anæsthetic, when repeated attempts to vomit sometimes undo the good work of the surgeon or gynæcologist.

In hospitals, and particularly in those in which a great many surgical operations are performed, it is quite the usual thing in making evening rounds after a heavy day in the operating rooms, to hear from all sides a continual retching. Think how this increases the discomfort of the poor sufferer; how it sends up pulse and temperature from sheer exhaustion, and how wearing it is on the already weakened patient! Think, also, of the effect (particularly in wards) on convalescing patients and on those who have just passed through a similar ordeal! We all know how sensitive the majority of people are to the sight or sound of vomiting. Think of the feelings of the new patients who have come in for an operation on the morrow, and who must feel that a similar experience awaits them! These are things which we, as physicians, must consider, and, if there is a way of alleviating them, the sooner we adopt it, the better.

The new drug, chloretone, is a very valuable hypnotic, antiseptic, and analgetic. A one-per-cent. aqueous solution is said to be equal to a two-per-cent. solution of cocaine hydrochloride for local anæsthesia. Chloretone has the advantage over cocaine of having antiseptic properties, and it has no bad systemic effects. As a hypnotic, it seems to act upon the central nervous system, and in doses of eight to twenty grains (a drachm if necessary) it has a most excellent effect; it is not a depressant to the circulatory and respiratory systems. I mention these uses of the drug incidentally merely as a matter of general knowledge, born of actual experience while I was connected with the Harper Hospital and since. The subject of this paper, however, demands that I discuss the use of chloretone in connection with the prevention of the nausea and vomiting occurring during anæsthesia.

The proposition which presented itself to me was this: If vomiting at the beginning of and during anæsthesia is reflex, and if the vomiting following is due partially to reflex action and largely to the swallowing of the supersecretion of mucus resulting from the action of the anæsthetic on the mucous membranes, why should not a drug which is not a depressant, which is both a local anæsthetic, with pronounced effect on mucous membranes, and a sedative to the central nervous system, be used before anæsthesia to prevent the coincident gastric disturbances?

In accordance with this line of thought, while I was a member of the resident staff of the Harper Hospital, I began giving chlorctone to patients before anæsthetizing them. It was given in doses of ten grains to women and boys under sixteen years of age, and of fifteen grains to men, half an hour before the anæsthetic was to be started. If the patient does not object to it, I prefer giving it dry on the tongue, and following the administration with an ounce or two of warm water. It may also be given in capsules, but the three-grain sugar-coated tablets now on the market are not so desirable in this connection, because of the number of tablets necessary to make the required dose, and because the sugar coating and compression delay absorption somewhat. When the time for administering the anæsthetic comes around, the patient who has had chloretone is calm; nervousness is quieted, and he is in an ideal condition. If a female, she takes the anæsthetic well, takes little of it, and goes under without a murmur, and one almost forgets that there ever was a stage of excitement.

It takes from seven to twelve minutes to completely anæsthetize with chloroform, and up to fifteen and eighteen with ether. Patients who have had chloretone require less of the anæsthetic, and are not so apt to come out of the anæsthesia suddenly during the operation, if the administration of the anæsthetic is lessened temporarily.

I personally have observed sixty cases, in a space covering a little over three weeks. Half of the patients received chloretone, and the other half, for the purpose of comparing results, did not. The operations were of the same class, the operators were the same, and I personally gave the anæsthetic in nearly all the cases. The amount of anæsthetic in the cases of patients receiving chloretone was from one third to one half less than in those not receiving it, and in none of the thirty receiving the drug was stimulation required during the anæsthesia. Out of the thirty receiving chloretone, none was nauseated while being anæsthetized, and three, or ten per cent., were nauseated, and only one of these vomited more than twice, on coming out from under the influence of the anæsthetic. Of the thirty less fortunate patients who did not receive chloretone, twenty-four, or eighty per cent., were nauseated and vomited, and nineteen of them were still unable to retain liquid food on the following day; in some of these the nausea and vomiting persisted at intervals for three or four days. The benefits of chloretone in this connection are self-evident. The difference of seventy per cent. in its favor is the most powerful argument for it.

These thirty cases, taken in direct succession, were mostly gynæcological; on account of their sex these individuals were naturally more prone to reflex nervous disturbances. It was in the hope of overcoming this reflex irritability that I sought for a remedy, or, to speak more accurately, a prophylactic. In the cases under observation, chloroform was the anæsthetic usually chosen and always preferred; ether was given only when chloroform, for some reason or other, was contraindicated or the operation was unduly prolonged.

In this series there were nineteen cœliotomies, including six operations for the removal of both ovaries and tubes; five hysterectomies, three removals of the vermiform appendix, two inguinal kelotomies, one Alexander's operation for shortening the round ligaments, a pylorectomy, and a ventral fixation. The remaining gynæcological operations were three curettings, two trachelorrhaphies and perinæorrhaphies, and one closure of a vesicovaginal fistula. The last five cases included one operation for removal of the inguinal glands and circumcision, one for resection of varicose veins of the leg, one amputation of the thigh, a litholapaxy, and a mastoid operation. The longest operation, which was undertaken for the removal of a pair of adherent ovaries and tubes, lasted for two hours. This patient received ten grains of chloretone, with the result that but one drachm of chloroform and six ounces of ether were required to keep her anæsthetized. Six hours after the operation she was able to take and retain fluid diet. The shortest operation, a vaginal hysterectomy, occupied twenty-five minutes in all, from the time the administration of the anæsthetic was begun until its close. Two drachms only of chloroform were required, the patient having received ten grains of chloretone before its administration.

The greatest quantity of chloroform used alone in any one case was an ounce and a half, during an Alexander's operation and curetting, lasting an hour and a quarter; the maximum amount of ether, eight ounces, was given in a case requiring a mastoid operation lasting an hour and a half. The smallest quantity of chloroform, one drachm and a half, was used in a curetting which required half an hour for its completion. Ether was used alone in but one case.

Three patients became nauseated despite the use of chloretone. One was that of a young medical student who was very apprehensive concerning the anæsthetic and in great fear that he might feel the pain of the operation. He received ten grains of chloretone, took seven drachms of chloroform, and was under the influence of the latter for an hour. The operation was a resection of varicose veins of the leg. The patient was nauseated on being returned to bed, and vomited once.

Another case was an urgent one of appendicular inflammation, for which an operation was begun very shortly after the admission of the patient into the hospital. Fifteen grains of chloretone were given and followed immediately by the anæsthetic. The operation required an hour and a half for its completion, one ounce of chloroform having been used. The patient was nauseated upon recovering from the anæsthesia, and vomited twice that day. However, he was in good spirits and retained nourishment the following morning.

Another case required a vaginal hysterectomy. This woman had mitral insufficiency and was extremely anxious about the condition of her heart. She also suffered from chronic gastritis. The usual ten-grain dose of chloretone was given, followed by the administration of two drachms of chloroform. The operation was completed in exactly twenty-five minutes. The patient vomited several times on the day of the operation, and on the following day still suffered somewhat from nausea.

It will be seen from the foregoing that, out of thirty cases, largely abdominal operations, but three, or only ten per cent., of the patients were nauseated and vomited, and in two of the three cases the chloretone was not given, for some reason, until just before the administration of the anæsthetic. I believe that in these two cases a few crystals of the drug, remaining in the patient's mouth, left its camphoraceous taste. This, combined with the first effect of the fumes of the chloroform, before either the local anæsthetic effect of the chloretone on the upper digestive tract or the general action on the central nervous system was produced, caused the nausea, which in both cases was slight.

The use of chloretone for the prevention of the nausea and vomiting of anæsthesia is now a standing rule with the principal operators at the Harper Hospital and is giving abundant satisfaction. It is for the purpose of placing in the hands of the profession this valuable and efficient agent for the relief of one of the most distressing conditions connected with surgical operations that I present this paper. I trust that the adoption of the practice mentioned will become more general.

420 Woodward Avenue.

STRANGULATED INGUINAL HERNIA CONTAINING THE CÆCUM AND APPENDIX.

By HENRY PERKINS MOSELEY, M. D.,
NEW YORK,
HOUSE SURGEON, PRESBYTERIAN HOSPITAL.

In *Progressive Medicine* for June, 1899, is a *résumé* of the recent literature of Hernia of the Cæcum and Appendix. This article induces me to report the following case, which occurred in the service, of Dr. F. Tilden Brown, through whose courtesy it is now published:

A coachman, single, aged twenty-seven years, was admitted at half past three in the morning of September 30, 1900. His family history was negative. His previous history was also negative, as to previous disease. He is a moderate user of alcoholic drinks, and denies venereal disease. For five years the patient has had a reducible hernia, kept back fairly well by a truss. It comes down occasionally after he has worked hard, but is easily reducible in the recumbent posture.

Present Illness.—Eight hours before admission, the patient, while not wearing the truss, plunged in a Turkish bath. The hernia came down and could not be reduced. Pain came on soon, and was very severe. For the four hours previous to admission it had been "agonizing." The bowels had moved the morning before admission, but not since the accident.

Physical Examination showed a well-nourished man, suffering extreme pain. Heart and lungs normal. Temperature 98.8° F. Pulse 112. Respirations 24. In the right inguinal region was a tumor the size of a grape fruit, extending from the external abdominal ring downward and inward for about three inches. There was a slight impulse imparted to the tumor on coughing. The percussion note over the upper part of the tumor was tympanitic; over the lower part, dull. The tumor was irreducible.

The patient was prepared immediately for operation. Under nitrous oxide and ether anæsthesia, an incision four inches and a half long was made over the long axis of the tumor. The sac and its contents were easily delivered through the skin wound. The constriction, situated at the external abdominal ring, was cut from without inward. The sac was then opened, and was found to contain a large mass of omentum, the cæcum and appendix. At only one point was the omentum adherent to the bottom of the sac. There was a slight amount of clear fluid in the sac, and the cæcum was markedly congested, the line of constriction being distinct. Hot towels placed over the gut relieved the congestion, and the appendix was removed, its stump being tied off and cauterized with the Pacquelin. Its length was six inches, its appearance normal.

After reduction of the cæcum and omentum, the patient's condition being excellent, a typical Bassini operation for radical cure was done.

At noon the next day the patient's temperature was 102° F., pulse 108, respirations 24. This was the highest point reached. He made a normal recovery, primary union allowing him to be discharged cured twenty-three days after operation.

Therapeutical Notes.

Ether Refrigeration in Strangulated Hernia.—At a recent meeting of the Paris Academy of Medicine (*Journal des praticiens,* November 10th) Fiessinger mentioned a number of cases in which the prolonged topical use of ether had resulted in the spontaneous reduction of strangulated hernia. A compress moistened with ether was applied over the hernia and kept moist with ether dropped on to it. The reduction took place suddenly, and was sometimes accompanied by a cry of pain from the patient, followed immediately by a declaration of relief. The amount of ether employed was occasionally as much as half a pint, and the duration of its use varied from fifteen minutes to two hours.

Hydrochloric Acid in the Local Treatment of Sciatica.—Von Eljasz-Radzikowski (*Therapeutische Monatshefte,* 1900, No. 8; *Centralblatt für innere Medicin,* November 25th) reports upon twelve cases of rheumatic sciatica treated with strong hydrochloric acid applied to areas several centimetres in diameter over the tender points in the course of the nerve and at the side of the vertebral column. In general, the acid may be applied every second or third day, but it should not be reapplied before the irritant effects of the preceding application have passed off. The pain caused by it is moderate, and sometimes there is none at all. Occasionally the first cauterization gives relief, but generally several pencillings are required, from four to eleven.

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HYPNOTISM AS AN EXCUSE FOR CRIME.

THE frequency with which the plea of hypnotism is being entered as a defense against criminal charges is becoming disquieting, chiefly because of the credence that is accorded to it in the vulgar mind. A recent case at Red Bud, Illinois, carries the matter to a *reductio ad absurdum,* and yet shows the dangerous hold that the notion of hypnotism as conferring an immunity from responsibility has taken upon people at large, from whom, of course, juries are drawn.

A young man deliberately killed another young man after previously expressing his intention of killing him "on sight." He then gave himself up, and pleaded that he had killed his victim because the latter "had hypnotized him to his detriment." The coroner's jury acquitted the prisoner, apparently without any hesitation.

It is not by any means established that hypnotism can compel a person to the performance of any act otherwise morally impossible to the subject, or such as to revolt his moral sense in a normal condition. Hypnotism does not differ essentially from other forms of suggestion. It is all of a piece with the worked-up fury of a crowd incited to violence by the diatribes of a mob orator, or the thousand and one forms of suggestion to which we all respond, by reflex action as it were, nearly every day of our lives. Under the influence of the slightest suggestions, we daily perform almost unconscious acts. But were the suggestions such as to prompt us to something totally at variance with our preconceived ideas and natural qualities and impulses, the spell would be broken and the influence of the suggestion be at once dissipated.

We are not forgetting that in hypnotic *séances* it is a very common sight to see some inoffensive and amiable subject ferociously seeking to stab perhaps his dearest friend with a paper knife or to shoot him with a ruler or other harmless object. But there are cases to show that under such circumstances the subconsciousness is aware of the actual harmlessness of the procedure, and that, under circumstances in which real harm could be done or when such would, wrongly, seem to the subject to be possible, the subject becomes rebellious to the influence of the suggestion.

Further, if these absurd pleas of hypnotism are to be accepted, then in all forms of mob violence and crowd suggestion we must logically hold the doers of violence unanswerable for their acts. The capacity to recognize evil is by no means necessarily equivalent to the power to resist the impulse thereto; and there are many cases in which, without any pretense of hypnotism consciously or unconsciously exercised from without, the subject, while fully conscious of the gravity of the offense, is powerless to resist his impulses—which is only another name for "self-suggestions." The question of responsibility is one, therefore, for a careful examination of the subject, rather than of the circumstances, and what has to be decided is, not whether the person was the subject of suggestions, whether from another person—"hypnotic," so called—or from his own depraved impulses, but whether he was so far a defective as to be really unable to resist them. The man who is "hypnotized," the subject of "crowd suggestion," and the victim of morbid impulses, most commonly of the sexual type, stand in the same category, and should all be judged by the same rules. Not all subjects of morbid perversion are irresponsible; neither are all people who plead "hypnotism" as an excuse for their crimes, nor all transgressors under the influence of crowd suggestion, as in lynchings, mob violence, and the like. Such a plea should be received with the greatest caution, and in regard to hypnotism, as in the other cases, the entire morbid chain of perversion should be clearly demonstrated before the subject is held to be irresponsible and is absolved from the consequences of his crime.

THE "EPIDEMIC" OF ARSENICAL POISONING IN ENGLAND.

LAST week we referred briefly to the prevalence of arsenical poisoning traced to drinking beer in Manchester and some neighboring places. In the *Lancet* for December 1st there is a composite article on the subject by Dr. T. N. Kelynack, Mr. William Kirkby, Professor Sheridan Delépine, and Mr. C. H. Tattersall. It appears from this article that cases of peripheral neuritis have for some time past been numerous in Manchester and Salford, and recently have increased in number very decidedly. They were generally interpreted as of alcoholic origin, but finally it occurred to Dr. E. S. Reynolds, assistant physician to the Manchester Royal Infirmary and visiting physician to the Manchester Union Hospital, to test the beer of the district for arsenic. He had no difficulty in detecting its presence, and on November 21st he announced the fact at a meeting of the Manchester Medical Society. It has since been found in many specimens of beer obtained both from the sufferers and from several breweries. Some of the patients date their illness back so far as June, so that this wholesale poisoning of beer-drinkers must have been going on for close on to six months. Mention is made in the article of the fact that arsenic has been recommended as a remedy for peripheral neuritis, and the hope is expressed that the recommendation is not now being acted upon. As we suggested last week, the arsenical contamination proves to have come from the cheap sulphuric acid used in the manufacture of the glucose employed as an ingredient of the beer. Thus far, it is chiefly "beer," by which the English mean a weak sort of ale, that has been found to contain arsenic, but in a few instances it has been detected in stout.

This deplorable occurrence has at least given some of our English brethren a grand opportunity to study chronic arsenical poisoning, and it is to be hoped that it has now served as a warning to brewers of the danger of substituting cheap and impure products for the proper ingredients of beer. The general appearance of the patients is described as frequently, but by no means always, that of persons suffering with alcoholism. Usually they walk with difficulty, in an ataxic manner, shuffling about and lingering at street corners. Pigmentation of the skin in various parts of the body was observed in almost every case, chiefly of exposed parts and of the axillæ, the groins, the areolæ of the breasts, and the region surrounding the umbilicus. In many cases there was herpes, erythema, or an eruption of papules. There was also copious desquamation, with thickening and cracking of the cuticle and thickening, induration, and brittleness of the nails. In some instances there were boils about the vulva.

Cramps and pains resembling the fulgurant pains of tabes dorsalis were common, and the soles of the feet were exceedingly tender, so that walking, besides being ataxic, was exquisitely painful. In many cases erythromelalgia was closely counterfeited, and there was often pronounced sweating. Tremor was often present, and evidently was not always due to alcohol. The reflexes were often exaggerated, although the knee-jerk was diminished or lost in most instances. It is thought that some of the deaths will be found to have been due to respiratory failure dependent on paralysis of the diaphragm. Nausea and vomiting were often complained of, but in many severe cases there was no vomiting.

THE POSTPONEMENT OF THE THIRD PAN-AMERICAN MEDICAL CONGRESS.

We briefly announced last week that the third meeting of the Pan-American Medical Congress, which had been appointed for the days immediately following Christmas, had been postponed until February. The precise time of the February meeting had not yet been settled upon when this article was written, but the probability was that it would be either from the 5th to the 9th or from the 12th to the 16th. As we go to press we learn that it will begin on February 4th. This year yellow fever has been rather more prevalent in Havana than usual, and, although the president of the congress, Dr. Santos Fernandez, has not thought that there need be any fear of the disease on the part of the visitors from the United States and Canada, it has lately been realized that, since there are still some cases in progress, fear of the infection might detract from the number of visitors who would otherwise be in attendance.

The vicissitudes of the congress—its having first been appointed to be held in Caracas and postponed on account of a revolution, then the place of meeting changed to Havana, and now the date put off again—far from discouraging our Cuban brethren, will convince them that their confrères in the other countries of America will be all the readier to do everything in their power to make the February meeting a brilliant occasion. The success of the congress is assured; already more than a hundred papers have been promised from this country, and over two hundred physicians have expressed their intention of being present. It is not at all sure, indeed, that it will not be found that there are some advantages growing out of the postponement. It is undeniable that many persons dislike to be away from home during the Christmas holidays, and attendance in Havana during the last week in December would involve such absence in the case of almost everybody but the Cubans themselves. Moreover, apart from the matter of the holidays, it would be worse to leave the rigors of our northern winter for ten days or a fortnight and then have to come back to two months' endurance of them than to bear them nearly to the last and then bid a long farewell to them, beginning with the trip to Cuba. We had rather hoped, on this account, that the later date mentioned, or even one subsequent to that, would be selected. Finally, the postponement gives all the more time to perfect the organization and the arrangements.

We earnestly hope and confidently expect, then, that the Havana meeting of the congress in February will be still more satisfactory and profitable than the meeting in December promised to be. We feel sure that the American profession in general will share our feeling in the matter and will do their best to fulfil the just expectations of our brethren in Cuba.

THE SORE THROAT OF SCARLET FEVER.

The precise part played by angina in the clinical history of scarlet fever is a matter of much interest. What seems a distinct addition to our knowledge of it was brought out at a recent meeting of the Medical Society of the Hospitals of Paris, by Variot and Delair, whose researches on the polymorphism of scarlatinal angina were summarized (*Progrès médical,* November 3d). They had observed 525 cases. In 150 there had been no exudate, although among those cases the pharyngitis had sometimes been very persistent and painful. They had never seen the miliary vesicles mentioned by Lasegue. In 375 cases there had been exudates. In 102 of these cases there had been a suspicion of diphtheria, a suspicion that had been confirmed in 30 instances. In 32 cases there had been pseudo-diphtheria with streptococci, and in these cases the clinical examination had never sufficed for the diagnosis. Contrary to the dictum of Wurtz and Bourges, that diphtheritic angina in scarlet fever was always of late development, was their experience. In doubtful cases, if a bacteriological examination was not to be had, one should not hesitate to use the antidiphtheritic serum. Variot had observed laryngeal complications only four times. In 423 cases of scarlatina pursuing a normal course, the influence of the angina on the temperature had been more intense than that of the evolution of the rash. In two-thirds of these cases of angina the rise of temperature, the sore throat, and the rash had progressed *pari passu;* in the other third they had not done so.

FRAUDULENT PERSONATION OF THE SURGEON-GENERAL.

One of the newspapers tells a curious story of a priest upon whom the "confidence trick" was played by a man who is said to have represented himself to be "M. A. Flannery, surgeon-general of the United States Army." The impostor told the priest a story of having been intrusted, by a dying soldier in the Philippines, with the sum of $650 to deliver to the priest, and handed him a bogus check for the amount. Before leaving he artfully inveigled the sum of $5 from the priest, on the plea of having lost his money through a hole in his pocket. The story might pass, perhaps, with the priest, but considering the extent to which Surgeon-General Sternberg's name has been before the public through the press for the last two years or more, especially during the Spanish war, it does seem odd that "M. A. Flannery, surgeon-general of the United States Army," should have been able to gain even a moment's audience without being denounced as an impostor.

PROFESSIONAL SECRECY AND SUITS TO RECOVER FOR SERVICES.

An interesting ruling has recently been made by a judge of the Supreme Court of the county of Kings, to the effect that, even when suing to recover fees for professional services, a physician must not testify as to the nature of the ailment from which the patient was suffering—that is to say, on the objection of the defendant's attorney, he excluded the testimony, but, on the plaintiff's attorney's contention that such exclusion would establish a precedent preventing professional men from obtaining just dues for their services, he directed the plaintiff's attorney to hand in a brief on the law point raised, so that the question might be finally settled.

TYPHOID FEVER IN MILITARY CAMPS.

According to press reports, Surgeon-General Sternberg has made public a report on the origin and spread of typhoid fever in our camps during the Spanish war, prepared by a board consisting of Surgeon Walter Reed, of the army; Dr. Victor C. Vaughan, division surgeon of volunteers, and Dr. Edward O. Shakespeare, brigade surgeon of volunteers. The report holds line officers, even those of the regular arm, in some degree responsible for unsanitary conditions, and suggests that greater authority should be given to the medical officers in matters of camp hygiene. Unquestionably this suggestion ought to be heeded.

CHARTER REVISION AND THE BOARD OF HEALTH.

In its issue for December 11th the *Evening Post* published an article among the subtitles of which was Why Dr. Janeway Does Not Favor Having the Chief Necessarily a Physician, and quoted Dr. Janeway as having said: "The present arrangement is satisfactory; why change it?" Nobody, so far as we know, desires the president of the board should *necessarily* be a physician, but it is intolerable that, as under "the present arrangement," the president should necessarily *not* be a physician.

A REVIVED JOURNAL OF TUBERCULOUS DISEASE.

Dr. H. Claude, of Paris, informs us that in January he will begin the renewed publication of the *Revue de la tuberculose,* which has been in abeyance since the death of Dr. Petit. It is a subject for congratulation that the journal is not to be allowed to become extinct, for the particular iron that now needs to be struck hard will never be hotter than it is at present.

News Items.

Society Meetings for the Coming Week:

MONDAY, *December 17th:* New York Academy of Medicine (Section in Ophthalmology and Otology); New York County Medical Association; Hartford, Connecticut, Medical Society; Chicago Medical Society.

TUESDAY, *December 18th:* New York Academy of Medicine (Section in General Medicine); Buffalo Academy of Medicine (Section in Pathology); Ogdensburgh, New York, Medical Association; Syracuse, New York, Academy of Medicine; Medical Society of the County of Kings, New York; Baltimore Academy of Medicine.

WEDNESDAY, *December 19th:* Medico-legal Society, New York; Northwestern Medical and Surgical Society of New York (private); New Jersey Academy of Medicine (Newark).

THURSDAY, *December 20th:* New York Academy of Medicine; Brooklyn Surgical Society; New Bedford, Massachusetts, Society for Medical Improvement (private); Medical Society of City Hospital Alumni, St. Louis; Atlanta Society of Medicine.

FRIDAY, *December 21st:* New York Academy of Medicine (Section in Orthopædic Surgery); Clinical Society of the New York Post-graduate Medical School and Hospital; Baltimore Clinical Society; Chicago Gynæcological Society.

SATURDAY, *December 22d:* New York Medical and Surgical Society (private).

The Louisville Water Supply.—We are informed that at the December meeting of the Louisville Society of Medicine, Dr. Edw. Speidel appointed a committee to investigate the water supply of Louisville. The following physicians were appointed: Dr. Orville A. Kennedy, Dr. J. Rowan Morrison and Dr. Walker B. Gossett.

Dr. Richard Neale Dead.—Richard Neale, M. D., M. R. C. S., L. S. A., died at his home in England on November 22d, at the age of seventy-three years. Dr. Neale devoted four hours a day for fifty years to his work on the *Medical Digest*, an index of current medical literature which is invaluable to all workers in medicine who desire to keep themselves informed. Notwithstanding the great value of the publication, it was never a profitable undertaking, and during February of this year a testimonial subscription was raised for him among the members of the medical profession in England.

The German Medical Society of the City of New York. — The Deutsche medicinische Gesellschaft der Stadt New York, will celebrate its fortieth anniversary by a banquet this (Saturday) evening at Arion Hall, with Dr. C. A. von Ramdohr in the chair.

The Third Pan-American Medical Congress will convene at Havana, Cuba, on February 4, 1901, the meeting having been postponed to that date from December 24th. The secretary for the United States informs us that "The success of the Congress is assured, as we already have more than 100 papers from this country in the different sections, and over 200 delegates have signified their intention of being present." It is hoped that the interest that has been shown by the members of the auxiliary committee will not be lessened by the delay, but that it will give them more time to appoint representative delegates who will take part in the meeting.

Typhoid Fever is reported to have broken out in Sing Sing Prison. Every precaution is being taken.——Typhoid has become epidemic in Fort Collins, Colo.

Enforcing the Lodging-house Act in Chicago.—A lodging-house keeper in Chicago has recently been fined $100, the highest possible penalty, for transgressing the law by overcrowding.

A Physician as Secretary of State.—Dr. C. R. Layton, a practising physician of Georgetown, Md., has been appointed secretary of state by the newly elected governor.

The Death of Dr. J. Mortimer Granville took place in London, according to the *British Medical Journal* for December 1st, on November 23d. Dr. Granville wrote extensively, and he devised the *percuteur*, an instrument for treating neuralgia and other nervous disorders by vibration.

An Extension for the Yale Medical School.—Property at New Haven has been secured as a new site of the Yale Medical School. The total cost is about $60,000, and considerable progress has been made toward securing funds for the projected structure.

Medical Inspection of the Schools.—At the annual meeting of the College of Physicians and Surgeons of Philadelphia, held on December 5th, a committee from the Public Education Association of Philadelphia, presented a resolution relative to the medical inspection of schools, which was adopted by the college.

Infectious Diseases in New York. —We are indebted to the Sanitary Bureau of the Health Department for the following statement of cases and deaths reported for the week ending December 8, 1900:

DISEASES.	Week end'g Dec. 8	
	Cases.	Deaths.
Typhoid fever	110	21
Scarlet fever	144	3
Cerebro-spinal meningitis	0	4
Measles	63	4
Diphtheria	292	49
Small-pox	12	3
Tuberculosis	246	134
Varicella	66	0
Laryngeal diphtheria (croup)	27	7

Marine-Hospital Service. — *Official List of the Changes of Stations and Duties of Commissioned and Non-Commissioned Officers of the United States Marine-Hospital Service for the Seven Days ending December 6, 1900:*

BROOKS, S. D., Surgeon. Granted leave of absence for five days from December 11th.

CARTER, H. R., Surgeon. Granted extension of leave of absence for fifteen days from December 1st, on account of sickness.

COFER, L. E., Passed Assistant Surgeon. Upon being relieved from duty at Los Angeles, California, to proceed to Honolulu, Hawaiian Islands, and report to Surgeon D. A. Carmichael for duty.

HASTINGS, HILL, Assistant Surgeon. Relieved from duty at the Columbia River Quarantine, Astoria, Oregon, and directed to proceed to Los Angeles, California, and assume command of the service, relieving Passed Assistant Surgeon Cofer.

McIntosh, W. P., Surgeon. To proceed to Perry, Georgia, for special temporary duty.

Parker, H. B., Assistant Surgeon. To proceed to Magnolia and Fayette, Mississippi, and St. Joseph, Louisiana, for special temporary duty.

Peckham, C. T., Surgeon. Granted leave of absence for two months from December 17th.

Vogel, C. W., Assistant Surgeon. Upon being relieved from duty at the San Francisco Quarantine, to proceed to San Francisco and report to the medical officer in command for duty and assignment to quarters.

Wickes, H. W., Passed Assistant Surgeon. Granted extension of leave of absence for ten days.

Young, G. B., Passed Assistant Surgeon. Granted leave of absence for three days.

Marine-Hospital Service Health Reports.—The following cases of small-pox, yellow fever and plague, were reported to the Surgeon-General during the week ending December 8, 1900:

Small-pox—United States.

Washington, District of Columbia	Nov. 12-24	3 cases.	
Wichita, Kansas	Nov. 17-Dec. 1	10 cases.	
Lexington, Kentucky	Nov. 17-Dec. 1	3 cases.	
Cairo, Illinois	Nov. 27	1 case.	
Duluth, Minnesota	Nov. 8-22	54 cases.	
Minneapolis, Minnesota	Nov. 24-Dec. 1	1 case.	
St. Paul, Minnesota	Nov. 8-22	2 cases.	
Winona, Minnesota	Nov. 24-Dec. 1	60 cases.	
Carlton Co., Minnesota	Nov. 8-22	73 cases.	
Hennepin Co., Minnesota	Nov. 8-22		
Kandiyohi Co., Minnesota	Nov. 8-22		
Le Suer Co., Minnesota	Nov. 8-22		
Lyon Co., Minnesota	Nov. 8-22		
Meeker Co., Minnesota	Nov. 8-22		
Pine Co., Minnesota	Nov. 8-22		
Ramsey Co., Minnesota	Nov. 8-22		
Wright Co., Minnesota	Nov. 8-22		
St. Louis, Missouri	Nov. 23-Dec. 3	3 cases.	
New York, N. Y	Nov. 24-Dec. 1	34 cases.	
Ashtabula, Ohio	Nov. 24-Dec. 1	7 cases	
Cleveland, Ohio	Nov. 24-Dec. 1	34 cases.	1 death.
Allegheny, Pennsylvania	Nov. 24-Dec. 1	1 case.	
Greenville, South Carolina	Nov. 24-Dec. 1	3 cases.	
Nashville, Tennessee	Nov. 24-Dec. 1	1 case.	
Blue Springs, Texas	Nov. 22	Present.	
Sublime, Texas	Nov. 22	14 cases.	
Vashti, Texas	Nov. 22	Present.	
Alexandria Co., Virginia	Dec. 5	1 case.	
Harrison Co., West Virginia	Nov. 28	18 cases.	
Wheeling, West Virginia	Nov. 24-Dec. 1	2 cases.	

Small-pox—Foreign.

Prague, Austria	Nov. 10-17	29 cases.	
Guayaquil, Ecuador	Oct. 6-Nov. 17		40 deaths.
Cairo, Egypt	Nov. 3-11		1 death.
Paris, France	Nov. 10-17		15 deaths.
Gibraltar	Nov. 3-11	1 case.	
Athens, Greece	Nov. 10-17	2 cases.	1 death.
Tampico, Mexico	Nov. 11-18		4 deaths.
Vera Cruz, Mexico	Nov. 17-24		1 death.
Moscow, Russia	Nov. 3-10	2 cases.	
Odessa, Russia	Nov. 10-17	14 cases.	7 deaths.
St. Petersburg, Russia	Nov. 3-10	2 cases.	2 deaths.
Glasgow, Scotland	Nov. 17-23	24 cases.	2 deaths.
Barcelona, Spain	Oct. 27-Nov.3		48 deaths.

Yellow Fever—United States.

Louisiana—40 miles south of Natchez, Miss.	Nov. 27	5 cases.	
Natchez, Mississippi	Nov. 27	1 case.	
Osyka, Mississippi	Dec. 4	Possibly 1, fatal.	

Yellow Fever—Foreign and Insular.

Havana, Cuba	Nov. 17-24		14 deaths.
Puerto Plata, Dominican Republic	Nov. 3-17		3 deaths.
Vera Cruz, Mexico	Nov. 17-24		3 deaths.

Plague—Foreign and Insular.

Manila, Philippine Islands	Sept. 29-Oct. 6	2 cases.	
Cape Williamtown, vicinity, Africa	Nov. 17	8 cases.	4 deaths.
Hong Kong, China	Oct. 13-27		6 deaths.
Kobe, Japan	Oct. 15-27	3 cases.	

Army Intelligence.—*Official List of Changes in the Stations and Duties of Officers serving in the Medical Department, United States Army, from December 1, to December 8, 1900:*

Coffin, Harold L., First Lieutenant and Assistant Surgeon, United States Volunteers, is assigned to the Thirty-ninth Infantry.

Cutliffe, William O., Acting Assistant Surgeon, United States Army, will be relieved from duty at Mayaguez, Puerto Rico, on arrival of the transport *Crook.* He will then report for duty to the commanding officer of troops *en route* to the United States on board that transport.

Edie, Guy L., Major and Surgeon, United States Volunteers, will proceed to the Island of Masbate for the purpose of making an investigation of the disease known as rinderpest, alleged to be prevalent among the cattle of that island.

Havard, Valery, Major and Surgeon, United States Army, will proceed to Washington on business pertaining to the Medical Department in Cuba, and, upon completion thereof, will return to Bridgeport, Connecticut.

Hysell, James H., Major and Surgeon, United States Volunteers, is honorably discharged from the service of the United States, to take effect on December 19, 1900.

Wilson, Compton, Acting Assistant Surgeon, United States Army, is relieved from duty at Aibonito, Puerto Rico. He will accompany Troop G, Fifth Cavalry, to San Juan, and thence to the United States on the transport *Rawlins.* Upon his arrival at Washington Barracks, he will report by letter to the Surgeon-General for further orders.

Naval Intelligence.—*Official List of Changes in the Medical Corps of the United States Navy for the Week ending December 8, 1900.*

Biddle, C., Surgeon. Ordered to the Naval Hospital, Norfolk, Virginia, for temporary duty.

Blakeman, R. S., Passed Assistant Surgeon. Ordered to be examined at Washington for retirement, and thence home to await orders.

Dunbar, A. W., Passed Assistant Surgeon. The order to the *Vermont* for duty with the crew of the *Wisconsin,* revoked; ordered to duty at the Naval Hospital, Mare Island, California.

Garton, W. H. Assistant Surgeon. Ordered to the Washington Navy Yard, December 5th.

Grey, E. J., Assistant Surgeon. Detached from the *Monadnock* and ordered to the *Culgoa.*

Births, Marriages and Deaths.

Born.

Jelliffe.—In New York, on Thursday, December 6th, to Dr. and Mrs. Smith Ely Jelliffe, a son.

Married.

Eidenmuller — Rounds. — In San Francisco, on Wednesday, November 28th, Dr. William Cooper Eidenmuller and Miss Goldie Rounds.

Lester—Smith.—In Salem, N. Y., on Wednesday, December 5th, Dr. Whittlesey Lester, of Grafton, N. Y., and Miss Stella S. Smith.

Petty—Wade.—In Denver, on Thursday, November 29th, Dr. Charles Odell Petty and Miss Anna Hyde Wade.

Roberts—Steele.—In Brooklyn, on Thursday, December 6th, Dr. Dudley D. Roberts and Miss Carrie Steele.

Rothschild — Jackson. — In San Francisco, on Tuesday, November 27th, Dr. Max Rothschild and Miss Lucie May Jackson.

Spalding—Cannon.—In Richmond, Virginia, on

Tuesday, November 4th, Dr. Basil D. Spalding and Miss Margaret A. Cannon.

TREUHOLTZ—BEAUCHAMP.—In San Francisco, on Tuesday, November 27th, Dr. C. A. Treuholtz and Miss Elizabeth Beauchamp.

WITMEYER—SCHAEFFER.—In Myerstown, Pennsylvania, on Wednesday, December 5th, Dr. Harry Calvin Witmeyer, of Lickdale, Pennsylvania, and Miss Agnes Rachel Schaeffer.

Died.

BANKS.—In Huntington, N. Y., on Tuesday, December 4th, Dr. George B. Banks, in the sixty-seventh year of his age.

DE QUESADA.—In New York, on Wednesday, December 5th, Dr. Gregorio De Quesada.

FINNEY.—In New Orleans, on Wednesday, November 28th, Dr. Ludger Mark Finney, in the thirty-eighth year of his age.

HAY.—In San Francisco, on Monday, November 26th, Dr. W. G. Hay, in the thirty-third year of his age.

LORD.—In Edgerton, Wisconsin, on Monday, December 3d, Dr. J. A. Lord, aged forty-two years.

MOORE.—In Clarkston, Georgia, on Monday, December 3d, Dr. W. C. Moore.

PEASE.—In Cumberland, Wisconsin, on Thursday, December 6th, Dr. Walter C. Pease.

PLEIBEL.—In Philadelphia, on Thursday, December 6th, Dr. Frederick W. Pleibel, aged sixty-six years.

SHERMAN.—In Salem, Massachusetts, on Thursday, December 6th, Dr. Sarah E. Sherman, in the fifty-fifth year of her age.

Pith of Current Literature.

Journal of the American Medical Association, December 8, 1900.

Dietetic Treatment of Diabetes. By Dr. N. S. Davis, Jr.—One of the points emphasized by the author is that a strict diabetic diet, that is, one containing no carbohydrates, should not be adopted too suddenly. Not infrequently coma has been precipitated by too sudden and great a change. Indigestion may be produced in other cases. From the beginning, all sugar should be forbidden, but the starchy foods should be diminished day by day during the first week of treatment, so that all will be excluded at the end of that time.

Gerhardt's test with perchloride of iron should be constantly made. If the reaction is positive or if acetone or diacetic acid is demonstrated, lessen the albuminoids and increase the carbohydrates in the diet. [Ebstein's Rule.]

When by suitable treatment of a moderately severe, or severe case, the sugar is reduced to five hundred grains daily, the case may be regarded as well controlled.

Another point is, that excellent results can often be obtained by intermittently restricting the diet closely. From two to six times a year, and from two to four weeks each time, this should be done. One or two "fast days" in a week is a good practice. The following is a "strict diet" *menu:*

Breakfast—Tea or coffee without sugar or cream; one egg and bacon, and two or three slices of nut-bread with butter.

Dinner—Bouillon or broths; beef, mutton or chicken; spinach, asparagus, or wax beans; salad of lettuce or tomatoes, with cheese; black coffee without sugar.

Supper—Tea or coffee without sugar or cream; meat, fish, or mushrooms; a salad of tomatoes, lettuce, or chicory, etc.; two or three slices of nut-bread.

Coma Diabeticum; its Treatment. By Dr. Heinrich Stern.—He suggests that the proposition of some authorities to substitute the designation "dyspnœic coma" for "diabetic coma," is a good one, on account of its greater significance, and because it precludes the assumption of its occurrence in diabetes exclusively. That which is most striking in the clinical picture of diabetic coma, is the singularity of coordination of extreme systemic asthenia with respiratory movements of a most vigorous character. In regard to alkali therapy, the author, as a general rule, has seen good results following the prophylactic administration of sodium bicarbonate—fifteen to thirty grains daily. In the fully developed diabetic coma it has proved a failure, and the author no longer uses it. This failure may be due to advanced tissue exchanges which have been called forth by acid intoxication, and which can no longer be counteracted by an increase of alkalinity. The use of calcium carbonate in the author's hands has been productive of good results, but, as he says, the cessation of the comatose state in the instances named may have been due to a mere accident or to enteroclysis *per se.*

Prolonged Fevers of Obscure Origin. By Dr. R. B. Preble.—In this paper the author limits himself to the consideration of that very common and wonderfully polymorphous disease or group of diseases which Leube so aptly calls "cryptogenetic sepsis." Ætiologically, a large number of bacteria are concerned, but the pus cocci are most frequently found. The pneumococcus comes next, and then come such organisms as the gonococcus, *Bacillus pyocyaneus*, and *Bacillus coli communis*. These bacteria may enter through any broken surface, cutaneous or mucous, but it is impossible clinically, and often postmortem, to discover the atrium. In treatment, our efforts are devoted mainly to supporting the strength of the patient. Hydrotherapy, quinine, strychnine, iron, salicylates, guaiacol, mercurials, and various nuclein preparations are used, as well as the Credé ointment, antistreptococcous serum, bleeding and subsequent intravenous injection of salt solution.

Acute Articular Rheumatism; its Ætiology and Pathology. By Dr. David Riesman.—The author believes that this is a specific infectious disease and not an attenuated form of pyæmia, in the sense that it is due to pyogenic organisms of reduced virulence. Its true cause has not been definitely discovered, although the bacillus of Achalme may prove to be the long-sought micro-organism. A number of joint affections resemble acute articular rheumatism, just as certain pseudomembranous inflammations of the throat resemble diphtheria. Joint diseases should be classed, when possible, as rheumatoid, or pyæmic, affections. They are best designated according to their cause, as streptococcic, staphylococcic, gonococcic or pneumococcic arthritis.

Colostomy for Permanent Fæcal Fistula. By Dr. John A. Wyeth.

Repair after Intestinal Resection. By Dr. William A. Evans.—A discussion of the question of stricture following end-to-end anastomosis. Though this procedure has been in vogue for ten years, there are very few reports of secondary stricture, and the possibility of such a contingency supervening is not great enough to constitute a legitimate objection to end-to-end anastomosis.

Hæmorrhagic Glaucoma. A Clinical and Pathological Study of a Case. By Dr. William Campbell Posey.

Hæmorrhagic Glaucoma. By Dr. Charles A. Oliver.

—Prognosis is almost invariably fatal, though when the local conditions have been gotten into abeyance, the general health kept constantly guarded, and the organ has resumed its functionary powers, relapses may, with a reasonable degree of certainty, not be feared.

Immature Cataract and its Treatment. By Dr. G. E. De Schweinitz.

Complete Transposition of Viscera. Report of a Case. By Dr. S. P. Delaup.

Subtrochanteric Amputation for Diffuse Skin Carcinoma. By Dr. Emanuel J. Senn.

Colostomy for the Cure of Amœbic Dysentery. By Dr. William Norbert Sullivan.

Lupus Healed with Röntgen Rays. Report of Case. By Dr. William Allen Pusey.—This is another illustration of the efficacy of this method of treating lupus. In German and Austrian clinics it has been in use for three years. This is the third case reported in the United States.

Tuberculosis of the Testicle, with Special Consideration of its Conservative Treatment. By Dr. John B. Murphy.—This is the concluding instalment of the author's very valuable paper, and consists mainly of illustrative cases.

A Youthful Deceiver. By Dr. John J. Kyle.—An example of "cussedness" in one of the fair sex aged ten, who stuck cotton under the eyelid in order to enjoy the drive into the city to consult a physician.

Medical Record, December 8, 1900.

Tuberculosis of the Eye: Its Differential Diagnosis, Pathology, and Treatment. By Dr. Charles Stedman Bull.—It may attack any of the tissues of the eye and is a rare disorder. Tuberculosis of the iris, and chorioid, however, is more frequently met with than the same disease in the conjunctiva and cornea. In the conjunctiva and lids, if the case is one of primary infection and is seen early in its course, the prognosis is favorable provided the local lesion can be thoroughly cauterized or excised. If the ulceration is secondary, the prognosis is always unfavorable. Tuberculosis of the sclera would seem to be curable only by the enucleation of the eyeball. In the cornea, the disease is very rare. In the iris, the prognosis is always unfavorable. Tuberculin seems to be of no value.

The Treatment of Tumors by Electrolysis. By Dr. William B. Neftel.—The electrolytic process is the ideal antiseptic, since it can reach the most hidden places and cavities inaccessible to other antiseptics. The author gives a few elementary facts indispensable for the rational employment of electrolysis in medicine and surgery. Both the animal fluids, which are saline aqueous solutions, and the animal tissues impregnated by them, are electrolytes and readily undergo the electrolytic action of the current. Even compact bones and cartilages yield to it. This is especially the case with the proliferating tumors in softened bones and cartilages. For electrolysis of tumors the constant current alone should be employed. In treating malignant tumors by electrolysis the author's aim is to produce in one operation by the action of the anode, the necrotic destruction of the tumor and of all the infectious germs of the surrounding tissues. The treatment of benign tumors is based on a different principle. Here the indication is not to destroy the tumor by electrolysis, but to induce, by the action of the cathode, a regressive metamorphosis, molecular disintegration, absorption and atrophy. The illustrative cases are confirmatory of the author's contentions. The technique must be adapted to the exigencies of the particular case.

Infant Feeding. By Dr. Louis Fischer.—The most important consideration in the management of bottle-feeding is to have *pure* cow's milk; and in a reliable dairy all modern sanitary laws should be so applied as to assure the perfect hygienic condition of the cow's stable. Use *raw* milk and avoid scurvy due to the prolonged use of sterilized or boiled milk. The risk of contaminating the milk with various pathogenic bacteria is reduced to a minimum when the principles of modern hygienic measures are rigidly enforced. As to general rules for infant feeding, each child is a law unto himself. The author does not think much of laboratory milk and asserts that while the percentage method of feeding appears plausible, the theory cannot be put into practice. As a substitute for milk in diseases of the stomach and intestines, the author recommends the use of almond milk. This is made by scalding or blanching the almonds, then beating them up, using an ounce of water for each ounce of blanched almonds, rubbing up this mixture, and then expressing it through cheese cloth. An ounce of almonds should yield an ounce of milk. Dextrinization is successful in children having subnormal gastric digestion. It should be used during illness only, and it is not advisable to feed healthy children with dextrinized foods.

A Mistake in Therapeutics. By Dr. Edward P. Buffet.—This mistake is the overestimate of the efficiency of drugs in the cure of disease.

Pœdiatrics, November 15, 1900.

Facial Diplegia Following Middle-ear Disease. By Dr. Luther C. Peter.—In this case, the diagnosis offers no difficulties since there are no other conditions with which it might be confounded. The exact location, however, of the lesions is more difficult and must be determined as in a unilateral palsy, by the presence or absence of taste on the tip of the tongue, the amount of salivary secretion, the condition of hearing, etc. The treatment should be directed primarily to the cause, and in a great number of cases the aural disease must receive attention. When seen early, counterirritation by a blister back of the ear is indicated; and if pain is a prominent symptom, small doses of salicylate of sodium will prove beneficial. Iodide of potassium has been of service, and after the acute inflammation has subsided, electricity will aid greatly to restore the muscles to their normal condition.

Carbonic Acid Gas per Rectum in Pertussis. By Dr. Legrand Kerr.—A pint bottle, admitting a glass tube to which is attached three or four feet of flexible rubber tubing, having at its free end an ordinary hard-rubber nozzle convenient for rectal injections, is used. The bottle is filled one-third full with water, in which has been dissolved about six drachms of bicarbonate of sodium. The gas is generated at the proper rapidity by the addition of four drachms of tartaric-acid crystals. The gas is administered for from five to ten minutes, and two or three treatments daily are sufficient. The good effects are explained as the results of the increased quantity of oxygen which reaches the air vesicles, there to be exchanged for the larger amount of carbonic acid contained in the blood in consequence of absorption from the rectum.

The Treatment of Scarlatinal Nephritis. By Dr. Robert Coleman Kemp.—This is another instalment of the author's article on this subject. In the present portion he considers the modes of enteroclysis: Enteroclysis in the dorsal position, on a rubber sheet, and without a bed pan; enteroclysis in the semi-oblique (half-sitting posture), enteroclysis in the Sims position, etc.

Medical News, December 8, 1900.

An Improved Technique in Amputation of Large Rectal Prolapse. By Dr. George Ryerson Fowler.—The advantages of this method consist in the use of the combined lithotomy and Trendelenburg position to provide against injuries to the small intestines during suturing; and, in turning back a cuff at the mucocutaneous margin for the purpose of preserving the normal conditions at the rectal outlet, and at the same time permitting the removal of all the relaxed and overstretched mucous and submucous structures at this point. This cuff also provides a covering for the sutured edges of the stump of the prolapse. Another advantage of this method is in the step-by-step application of, first, a suture and then an extension of the incision through both cylinders to correspond with the sutured area, in this manner avoiding exposure of the peritoneal cavity to infection.

A Modification of the Mosquito Theory. By Dr. Charles R. Grandy.—While the author believes that malaria can be transferred from man to man by the anopheles, he is convinced that this is the fact in only a very limited number of cases, and he asserts that they can and do obtain the malarial organism from other sources than the human blood—food or water, for instance. If we accept this modification, the theory comes nearer fulfilling all conditions and answering all objections than any theory which has yet come to light. The author therefore believes it worthy of consideration.

Heat Stroke as a Post-operative Complication. By Dr. C. L. Gibson.—Probably none of these heat manifestations will be of a very severe type, and comparatively mild measures should succeed. The prognosis should be good, provided treatment is promptly instituted.

Chloralamid. By Dr. S. V. Clevenger.—In nocturnal epilepsy, and particularly where there is apprehension of somnambulism, and where repeated doses of a sleeping potion are to be administered, an experience of ten years has convinced the author that chloralamid is without a rival. He classes it among "nutrient hypnotics" or those that supply some material to the system that sustains instead of depresses. The usual dose is from fifteen to sixty grains, given half an hour before bedtime. There is no liability to addiction, no ill consequences, no cumulative effect, and as it does not influence the viscera, and is not an irritant to any mucous membrane, it should rapidly supersede chloral hydrate.

State Sanatoria for Consumptives in Michigan. By Dr. Herbert Maxon King.—In properly managed sanatoria, suitably located, and officered by men selected for their professional ability alone, the author believes that there would be fully as large percentages of "apparently cured," "disease arrested," and "much improved" in Michigan, as are reported from any institution of the kind in the world. The familiar advantages of this method of treatment are enumerated, and the need of legislative action in the matter is dwelt upon.

A Study of Drainage. By Dr. A. M. Pond.

A New Urethrotome. By Dr. George Rubin.

Philadelphia Medical Journal, December 8, 1900.

A Tropical Ration. By Dr. J. R. Kean.—The requirements of a tropical dietary, as compared to one suited to a colder climate, are: (1) less fats and more carbohydrates; (2) less stimulating proteid in the form of meat; (3) greater *variety* of diet, both of meats and of carbohydrates in the form of fresh vegetables and fruits; (4) a fairly liberal supply of ice. (*To be concluded.*)

The X-rays in the Treatment of Carcinoma. By Dr. Wallace Johnson and Walter H. Merrill, B. L.—The x-ray applied at first to diagnosis and to assist in the treatment of fractures and to the location of suspected buried foreign bodies, was soon extended to diagnosis in internal medicine, and later to the therapeutics of certain skin diseases, chiefly lupus hypertrichosis and the eczemas. It is the authors' purpose to draw the attention of the possibilities of the x-ray as applied to cancerous growths. Their experiments lead them to believe that even in inoperable cases of carcinoma attacking superficial parts, we may give great relief from pain, and even slightly prolong life. In a reported case the statements of the authors are justified in part. (*To be concluded.*)

Principles of Asepsis Applied to Operative and other Wounds of the Eye. By Dr. Edward Jackson.—To avoid impairing the resisting power of the tissues is an indication of primary importance. An understanding of it has led to the discarding of the more active germicidal solutions for cleansing the eye. Reliance is to be placed rather on the thorough use of plain sterilized water, physiological salt solution, boric-acid solutions, etc. In any of these, the water is the important element. Judiciously used, it accomplishes the mechanical removal of germs, with less disturbance of the tissues than is possible by any other means. Of the natural guards against infection, one of the most important is bleeding, including the outflow of serum from cut or injured surfaces. (*To be concluded.*)

Suprarenal Gland in Hay Fever. By Dr. Lewis S. Somers.—When applied locally to the mucous membrane of the nasal interior, the parts become ischæmic and contracted, and the engorged vessels are relieved by the action of the drug. Used intravenously, the physiologic action is expressed by an elevation of the blood pressure. On account of the dangerous cardiac symptoms, however, its use is prohibited by this method. The internal administration is productive of unfavorable results.

The author does not recommend a long trial of the internal use of the drug in hay fever. As to the local value of the drug in hay fever, it is of great service, and, when applied to the mucosa of the nose and pharynx, we can depend upon restoring the nasal respiration, diminishing secretion and sneezing attacks, and practically making the patient comfortable so long as the applications are continued.

Sanitary Work in the City of Havana. By Dr. W. N. Bispham.—The author trusts that, after reading his report, no one will believe that the sanitary condition of Havana has not been improved, as some correspondents state. From the article it would appear that the city had been in a deplorable state. The application, however, of modern hygienic ideas to the existing evil conditions, has succeeded in many cases in doing away with the latter, and in all cases in ameliorating them. The number of deaths monthly for 1894, 1899, and 1900 are shown, and the table gives decided proof that the sanitary condition of the city must have improved wonderfully.

Nasopharyngeal Mycosis, with Report of a Case. By Dr. P. S. Donnellan.—This non-contagious affection pursues a prolonged course, though it sometimes subsides spontaneously and abruptly. It is frequently associated with carious teeth and disordered digestion, which seem to favor the growth of *Bacillus leptothrix.* The treatment is first directed toward putting the teeth and digestion in good order. The use of alkaline mouth washes has many advocates. The effect of tobacco is beneficial in many instances. Of radical measures, the application of the galvanocautery, or the removal of small pieces of the growth at repeated sittings, gives the best results, and in the author's case the latter plan was followed, and the patient made great progress toward recovery.

Boston Medical and Surgical Journal, December 6, 1900.

The Treatment of Placenta Prævia by Cæsarean Section, with Report of a Successful Case. By Dr. Francis D. Donoghue.—It would seem, if the author's deductions are correct, that section, in preference to other operative intervention, is indicated in: (1) cases of complete prævia; (2) cases of prævia in primiparæ when signs of fœtal or maternal exhaustion are evident; (3) when the condition of rigid os is present; (4) where there is a history of previous operative delivery; (5) in transverse positions and in cases of prolapsed cord, if the cord is not easily returnable. It is the easiest of cœliotomies, and it is also an extremely safe operation, not only for the mother, but for the child. The author's case is given in detail.

The Duties of the Medical Examiner in Massachusetts. By Dr. Julian A. Mead.—He should be familiar with the appearances that wounds on the living body present after death, and be able to determine the nature of the instrument that inflicted them. He should be familiar with the post-mortem appearances of a body taken from the water, and should be able to decide whether death occurred before or after immersion. He should be able to distinguish between ptomaine poisoning and poisoning by a metallic irritant. He should be familiar with medical jurisprudence, but should confine himself, however, to the solution of the question, What caused this death? leaving the question, Who did it? to be answered by the legal profession. The author is a medical examiner, and he illustrates his article by relating a case that came under his care a year ago. In viewing a body found post-mortem, the medical profession should appreciate the great importance of leaving everything undisturbed, for in many instances by an unnecessary examination of the body they have either destroyed or befogged important evidence, and thereby increased the difficulty of unravelling the puzzling questions that such cases often present.

A Case of Alexia, Mind Blindness, etc., with Autopsy. By Dr. Edwin E. Jack.—This case is of particular interest because the absence of hemanopsia with amnesic color blindness has not been heretofore recorded.

Note on the X-rays as a Curative Agent in Certain Diseases of the Skin. By Dr. Francis H. Williams.—The author's experience with the x-rays as a curative agent in lupus has demonstrated: (1) that excellent results can be obtained by exposing the diseased portion of the skin to the x-rays, and that the treatment causes no pain, while it is not necessary to repeat it so frequently as to cause inflammatory reactions; (2) that it is essential that the treatment should only be undertaken by one who has learned how to manage an x-ray apparatus, and has provided himself with special appliances for carrying out this method.

Lancet, December 1, 1900.

Prognosis and Treatment in Pulmonary Tuberculosis. By Dr. R. Maguire.—Pulmonary tuberculosis, as seen clinically, must be considered as the work of three germs: The tubercle bacillus, the staphylococcus pyogenes, causing suppuration, and the pneumococcus, causing pneumonia. So that prognosis and treatment must be based upon observation of the effects produced by each or all of these germs.

The most favorable state in which pulmonary tuberculosis can present itself, is slight lack of resonance, with deficiency of breath sounds and of respiratory movement, but without adventitious sounds, and these signs limited to one apex. The prognosis of primary basic tuberculosis is also relatively favorable, but the author has observed only 60 such cases out of 19,000 patients suffering from pulmonary tuberculosis. But a secondary lesion of the base bears a very unfavorable prognosis, as indicating an advanced condition of the process. Further, where the primary lesion is in a middle lobe, the outlook is distinctly bad. The more numerous the initial lesions and the more widely distributed, the worse the prognosis; but a case with multiple lesions limited to one lung is more favorable than one where both lungs are affected. The coarser the râles and the greater the lack of percussion resonance, the more unfavorable should be the opinion.

The most serious form of onset is what the author terms "multiple pleuritic," where several areas of pleurisy appear simultaneously, followed by patches of consolidation in the neighborhood of such areas. The prognosis of emphysematous or suffocative phthisis is also bad.

The amount of physical signs in any individual indicates the intensity of the reaction of the tissues to the invasion of the tuberculous poison; not the intensity of the poison itself. If the symptoms are out of all proportion greater than the physical signs, think badly of the future of the patient. Simple chlorosis is rarely an antecedent to tuberculosis; chlorotic subjects accumulate fat, while tuberculous ones lose it.

Florid subjects seem to behave worse in their resistance to the tuberculous invasion than do the anæmic subjects. They are more prone to hæmoptysis, pneumonia and fever. The percentage of cures and slow progress is greater in the anæmic than in the florid. Deformity of the chest predisposes to tuberculosis of the lungs, and greatly increases the gravity of the prognosis. This is due to interference with the respiratory movements and disturbance of the pulmonary circulation. Patients with tuberculous glands are more prone to pulmonary tuberculosis, yet the progress of such cases is slower and more favorable than where the lung tissue is primarily invaded. The presence of such glands is a favorable element in the prognosis of a tuberculous lung, in that they can be easily removed, leaving the lung tissue unhampered in its fight with the bacillus. Pleurisy with effusion does not necessarily bear with it a bad prognosis for a tuberculous subject; indeed, it may be actually of benefit, if only the effusion is not removed. Empyema is rarely followed by pulmonary tuberculosis; yet when it is, the course of the disease is usually rapidly fatal. The previous existence of a simple croupous pneumonia does not materially affect the prognosis of a consequent tuberculosis. Pneumonia is an essential element of pulmonary tuberculosis; further, in croupous pneumonia, it is usually the base of the lung that is affected; in tuberculosis it is the apex. In urinary tuberculosis, any pulmonary complications usually play a minor part. Heredity does not play so important a part in pulmonary tuberculosis as does actual infection; yet it must be considered in forming a prognosis. (*To be continued.*)

The Treatment of Certain Chronic Abscesses by Simple Aspiration. By W. H. Bennett, F. R. C. S.—After referring to the good results that frequently followed the old custom of allowing abscesses to burst spontaneously, the introduction of aspiration and its abandonment because "suppurative fever" frequently followed its practice, the author states that, in these days of surgical cleanliness, there is no reason why the introduction of a properly sterilized trocar into a psoas or other abscess, should be followed by any harm at all. He does not recommend the adoption of aspiration as a routine method, or that it should supplant more radical treatment, such as incision and scraping. But certain cases of large chronic tuberculous abscesses can be cured by aspiration; the essential points are (1) to be careful to withdraw the abscess contents the moment any sign of blood shows in them; and (2) not to allow the abscess to regain more than half its original size before aspirating again. In abscesses arising from tuberculous disease of lymphatic glands, aspiration is not to be recommended under any circumstances. The author has, however, cured by aspiration abscesses connected with tuberculous bone disease. He looks with disfavor on the injection of iodoform into the abscess cavity. Several illustrative cases of cure by this method are cited.

On a Method of Measuring the Bactericidal Power of the Blood for Clinical and Experimental Uses. By Dr. A. E. Wright.—With a view to determining in a quantitative manner the bactericidal power of the blood, measured volumes of serum and of graduated dilutions of serum are introduced into a series of "capillary cultivation tubes" along with a series of equal volumes of a gelatin culture containing an appropriate number of bacteria. Mixture of the contents of the serum and the culture is then effected in the capillary tube. By this arrangement the serum comes in contact with the bacteria only after these have been suspended in a fluid which is sufficiently viscid to make it impossible for them to come together in groups. After the gelatin has solidified, the tubes are incubated for a period of two or more days. The number of colonies of the special organism which develop is then ascertained by counting under the microscope, the results of the enumeration being in each case compared with the results of the enumeration of the colonies in a series of check tubes filled with an equal volume of the gelatin culture duly diluted with an indifferent diluting fluid. The author describes minutely and in detail, the construction of the various pieces of apparatus used, how the desired dilutions of the blood are made, and the desired quantities of bacterial culture and serum measured out; the method of mounting and examining the capillary culture tubes is also given, and the conditions which are essential to accuracy. A table is given which sets forth certain of the data obtained in connection with the bactericidal power of normal human blood. In all cases the bactericidal effect was found complete in a two-fold dilution. In 50 per cent. the effect was complete with a twenty-fold dilution. The organism used was the typhoid bacillus. The addition of therapeutic typhoid sera to blood serum, abolishes its bactericidal powers; this is a most remarkable observation, and calls for further investigation.

Fungus Disease of the Ear. By W. K. Hatch, F. R. C. S.—The author's article is based upon a table of twenty-two cases of fungus disease of the ear, seen by him in India during October, 1899. Fourteen cases were due to *Aspergillus niger,* six to *Aspergillus flavus,* and two to *Aspergillus albus.* On examination, a moist-looking epithelium is seen, over which are scattered numerous black or whitish grains. Diagnosis is readily made after a few observations and can be confirmed by the microscope. Pain, uneasiness and deafness, with or without a discharge, are the symptoms complained of. The treatment consists in syringing, and the use of equal parts of boric acid and iodoform.

The different fungi were cultivated, and various observations are reported as to their morphology, modes of growth, etc.

Some Notes on Cases of Movable Kidney. By Dr. H. Davy.—In a practice of twenty years, the author has seen only fourteen cases of movable kidney. He divides such cases into two classes: those where the kidney can be felt in outline and can be replaced in its usual site in the loin, and again displaced and replaced at the will of the examiner, and those where it cannot be so replaced. In the latter class, the diagnosis is often very difficult; it cannot be made at a single interview. Fæcal tumors, malignant intestinal growths and other affections, must all be ruled out. The author is impressed with the part played by constipation and its associated straining, in the production of movable kidney. Indigestion is a constant accompaniment of the condition. As to treatment, many cases get through life with very little inconvenience at all. In some cases, an abdominal belt and pad will be of service, in others nothing but the operation for fixing the kidney will give relief.

The Open-air Treatment of Phthisis: An Interesting Case. By J. Fletcher Little, M. B., and Dr. F. W. F. Ross.—The authors report the case of a man aged twenty-four years, the subject of pulmonary tuberculosis, who returned to England after a two years' stay in South Africa. He was emaciated and anæmic; had consolidation of both apices of the lungs, with cavity-formation in the left; the sputum contained many tubercle bacilli; he had a typical tuberculous laryngitis, and daily fever, ranging as high as 102.8° F. He was sent to Mount Vernon, Hampstead, for the open-air treatment, and, when seen three months later, had improved to a wonderful degree. The right apex had cleared up and there was fibroid thickening around the cavity in the left apex; the laryngitis had markedly subsided; the sputum contained very few tubercle bacilli; his temperature was normal; cough and night-sweats had disappeared, and he had gained fourteen pounds.

South African Horse Sickness; its Pathology and Methods of Protective Inoculation. By E. Edington, M. B.—This disease is peculiar to South Africa. It begins about the end of October and dies out at the end of the following May. It affects horses, asses, and mules. Sheep and cattle are only slightly susceptible to the disease. It occurs in two forms—the "dikkopziekte" and the "dunpaardeziekte." In the former the head and neck swell enormously; in the latter, as a rule, no symptoms appear until death is near at hand, when the animal becomes subject to rapid breathing with heaving at the flanks. At the moment of death, a cloud of white foam is ejected from the mouth and nose. The various pathological phenomena found, are to be ascribed to the marvellous exudation of blood plasma which, while seen more or less throughout the serous and subcutaneous tissues, is best marked within the thoracic cavity. The animal mortality in Rhodesia and the low-lying parts of the Transvaal amounts to over 90 per cent. Animals which have recovered from the sickness are termed "salted," and their value is greatly increased. Various inoculation experiments were carried out by the author. The cause of the disease was not ascertained, but he found that inoculations of fresh virulent blood always transmitted the disease. Thoroughly "salted" animals and donkeys can be reinoculated, and infection proved to exist in their blood for ten days subsequently. The author looks upon the protection existing in "salted" animals as of the nature of a "tolerance," and believes that true immunity against this disease is never acquired by horses.

Arsenical Poisoning from Beer Drinking.

Notes. By Dr. T. N. Kelynack.

Analytical Report. By W. Kirkby, F. L. S.

Notes. By Professor S. Delepine and C. H. Tattersall, L. R. C. P.

This article refers to the epidemic of peripheral neuritis due to the drinking of beer containing arsenic, at present prevalent in Manchester and Salford.

Dr. Kelynack carefully reviews the various objective and subjective symptoms observed in those suffering from the disease. They correspond in every way to those seen in multiple neuritis due to arsenical poisoning. As regards treatment, he forbids the use of spirits in any form, and insists on rest in bed in all severe cases. In many cases a long course of massage should be arranged.

Mr. Kirkby found that the "invert sugar" used in the brewing, contained considerable quantities of arsenic. The amount of arsenic found in the beers used by the patients, ranged from a faint trace to 0.28 of a grain to the gallon. The arsenical impurity results from the employment of sulphuric acid in the manufacture of these "invert sugars," the acid being made from iron pyrites which contains arsenic. In every case so far followed up, the breweries all used sugar manufactured by the same firm.

The New Prophylaxis against Malaria; an Account of Experiments in Latium. By Prof. A. Celli.—(Translated from the *Supplemento al Policlinico,* Anno VI., No. 51.) The author reports the results of experiments in Latium, where prophylaxis against malaria was carried out along the same lines as in those on the Roman Campagna, during the past summer, the results of which were recently referred to in this Journal.

Of a whole community of persons, all subjected to the same conditions in other respects, those who were defended against mosquitoes remained free from malaria, while those left unprotected were nearly all attacked.

British Medical Journal, November 24, 1900.

Physiology and the Healing Art. By Dr. W. H. Thompson.—A presidential address.

Some of the Sequelæ of Cranial Injuries. By E. Tredennick, M. R. C. S.—The author reports several series of cases illustrating some of the sequelæ of cranial injuries.

1. *Frontal Injuries.*—Six cases are cited; of these, three were in children, all of whom developed stealing propensities, and became idle and untrustworthy. A young woman, injured in this region, developed nymphomania and a great dislike for her own people. The remaining two cases, both in men, developed mania. All three adults eventually recovered.

2. *Traumatic Dementia.*—Eight cases are cited. Of these, three developed homicidal or suicidal mania, the others simple mania. Four recovered.

3. *Diabetes after Head Injury.*—One case is cited, that of a man who struck the top of his head against an iron beam. Two days later, the amount of urine passed was greatly increased, and was loaded with sugar. He lost some thirty-six pounds in weight, and had lightning pains in the legs, increasing to acute tetanus with opisthotonos. Of late, his condition has improved somewhat. The author cites ten other cases of diabetes, in which there were histories of cranial injury. The seat of the external injury has nothing to do with the resulting diabetes; in all cases of cranial injury, the urine should be examined regularly for some weeks after the injury. After the lapse of three years, the suggestion of the traumatic origin of diabetes should be received with great doubt. The symptomatology of the idiopathic and traumatic forms is identical. There are two forms of traumatic diabetes, permanent and transient. The latter usually appears soon after the accident; the former some time afterward, up to three years.

4. *Epileptic Attacks Following Cranial Injury.*—The author has collected forty-five cases of epilepsy following cranial injury. The age varied from six months to forty-five years. In thirty-three cases, the injury was parietal; in eight, frontal; in two, mastoid; in one, vertical; and in one, occipital. These figures correspond with the fact that the motor area lies principally in the parietal region. The period of unconsciousness ranged from a few minutes to thirty-two days. In some cases, many years elapsed after the injury before the occurrence of fits. Trephining was performed in twenty-four cases in which the injury was parietal; eighteen recovered completely, and three died. Of nine parietal cases which were not operated on, five died and only one recovered. Of seven cases in which the injury was in the frontal region, operation was successful in four and one died. In all cases of epilepsy the skull should be carefully examined for old scars. Should they be found an operation is more to be desired than dreaded.

A Case of Neuritis of Posterior Roots: Pre-ataxic Stage of Tabes Dorsalis. By Dr. W. B. Ransom.—The author reports a case of this affection occurring in a man aged forty-four years. The illness commenced with attacks of sharp stabbing pain in the left hypochondrium. These increased in frequency and severity. On examination, the right knee jerk was absent, the left well marked. There was Argyll Robertson pupil. The gait was normal, with only a little unsteadiness. There was marked mental irritability and suspicion, suggesting general paralysis. Specific treatment did not bring about any improvement. A diagnosis of neuritis of the posterior roots was made, and an operation for their section was performed, but the wound became infected, septicæmia set in, and the patient died six days later. Microscopical examination of the removed posterior roots showed excess of fibrous tissue and a great reduction in number of the nerve fibres in the left root. The right root was normal. The pathological process was closely akin to that of tabes dorsalis, only a very few posterior roots being affected, however.

An Epidemic of Peripheral Neuritis amongst Beer Drinkers in Manchester and District. By Dr. E. S. Reynolds.—The author describes the epidemic of peripheral neuritis at present prevalent among the beer drinkers of Manchester. When first seen, three months ago, the cases were variously diagnosticated as alcoholic neuritis or erythromelalgia, but the increase in their number was soon noted by the various dispensary physicians; peculiar skin eruptions were observed in many cases. Women were more frequently affected than men, and all the patients were beer or porter drinkers. In some, not more than four glasses a day were consumed; in others much more. The beer used came from five different breweries. The symptoms complained of were, tingling and burning sensations in the fingers and toes, loss of power in the arms and legs, and rashes on the body, with much itching. The faces of the patients were puffy, the eyes suffused and watery, and the skin of the face pigmented. The advanced cases had a typical "dropped-foot" from paralysis of the anterior tibial muscles. Pigmentation of the skin was constant, and might be very marked. Many of the cases were just like Addison's disease in appearance. The erythematous eruptions were very varied in character. Many patients presented signs of erythromelalgia or the "red neuralgia" of Weir Mitchell. There were pain, redness, and swelling affecting the soles of the feet and the palms of the hands. Mental confusion was much less marked than in alcoholic paralysis. The nature of the muscular paralysis differed but slightly from that seen in alcoholic neuritis, the sensory and vasomotor symptoms being more marked. There was usually great muscular tenderness on deep pressure; this was almost diagnostic. The temperature might be elevated for several days; in the fatal cases, it remained high (103° F.) until death.

Such an epidemic has not occurred in Manchester during the last twenty-two years to the author's personal knowledge. The three causes of peripheral neuritis associated with muscular tenderness are alcohol, beri-beri, and arsenic. But alcohol and beri-beri will not explain the skin lesions, which in their multiform character can be explained by no known drug except arsenic. In an *addendum* the author states that he has found considerable arsenic in certain beer used in Manchester, as, also, has Professor Dixon Mann. He believes that the source of the arsenic will be found to be the sulphur used in the hop industry.

An Outbreak of Typhoid Fever Attributed to the Infection of a Well by a Convalescent Soldier from South Africa. By Dr. T. J. Walker.—In two houses taking their water supply from the same well, the inmates and their friends are known to have been for twelve months at least drinking water highly contaminated with sewage. No one suffered until the arrival of a trooper invalided home from South Africa, convalescent from typhoid fever. Immediately after his arrival, the well became infected with the typhoid bacillus, as was proved by the fact that between September 4th (the seventeenth day after the arrival of the trooper) and September 17th, twelve individuals were laid up with typhoid fever, the only link between these twelve individuals being, that each one of them had partaken of water from the polluted well. The author calls attention to the great value of urotropin in clearing the bladder of typhoid bacilli.

Erythematous Rash Due to Boric Acid. By Dr. H. Handford.—The author reports the case of a coal-miner, suffering from dilatation of the stomach, who had been washing out his stomach daily with a one to sixty boric acid lotion for six days. An erythematous rash then appeared upon the face and back, the skin being reddened, swollen and thickened, in broad patches, and there was much itching. On substituting water for the boric acid lotion the rash disappeared in two days. On returning to a 1 to 200 boric acid lotion, the rash reappeared, to disappear again when the boric acid was discontinued.

A Case of Acute (Traumatic) Tetanus Successfully Treated with Antitetanus Serum. By S. H. Long, M. B. —The author reports the case of a boy, aged thirteen years, who had received three small wounds on the plantar surface of the big toe, from projecting nails within his shoe. The next day the toe was inflamed, and on the following day there was general malaise. On the fourth day the patient first felt pain in his legs; on attempting to run they stiffened and he fell to the ground. When seen, opisthotonos was present, the jaw was set, and risus sardonicus was well marked. There was great pain in the back and muscles generally. With great difficulty the patient could manage to stand. The temperature was not elevated. On the night after his admission to the hospital he had his first tetanic spasm; these increased in frequency, until on the seventh day of the illness he had eight. Thereafter, they decreased, and the last one occurred on the thirteenth day. Antitetanic serum was administered on the fourth day and continuously every four hours thereafter, 10 cubic centimetres at a dose. Because of the spasms, the injections were given under chloroform. After twelve doses, the serum was given *per rectum* every four hours for six days. It was then given every eight hours for three days more, and then discontinued, as the patient had practically recovered. The rectal injections were given through a flexible rubber tube of small calibre under hydrostatic pressure. The total cost of the serum was about $50.

Puerperal Eclampsia and its Treatment by Morphine. By G. E. Fitzgerald, M. R. C. S.—The author reports five cases of puerperal eclampsia. In two of these, labor was induced, the children were born dead, and the mothers both died within a few days. In a third case, where the woman had had one fit, liquor ammoniæ acetatis was given, and she was safely delivered of a living child three weeks later. In the last two cases, which were very severe, one-quarter of a grain of morphine was given night and morning, with the result that the fits did not recur, and labor took place naturally, one of the children being born dead. The administration of the morphine had no depressing effect upon the heart.

Syphilis in the Royal Navy. By J. P. H. Greenhalge, M. B.—The author calls attention to the prevalence of syphilis in the navy, and states that it is due in part to the period of treatment being too short. Patients are treated only so long as there are visible signs of the disease. He recommends that records of every case be kept, which records should be retained by the surgeons of the various ships and navy yards, and forwarded by them as the men are transferred.

Note on a Case of Protracted Stupor or Trance. By Dr. D. Drummond.—The author reports the case of a man, aged twenty-six years, who, when first seen, was in a state of trance, or stupor. He had always been melancholic and a fanatic on the subject of religion. For a year past, he had lost his appetite and was thin and pale. In March he had a "fit," from which he passed into a state of lethargy. He had not moved or spoken for a week, but lay motionless, his eyes being open and staring, limbs cold, flaccid and unresisting. The reflexes were just perceptible, with the exception of the corneal reflex, which was active. There was involuntary defæcation and micturition. He slept well, but could be aroused without difficulty. He was fed with milk, beef tea, and eggs, from a feeding cup through a short rubber tube. The strongest faradaic current produced no response. Pulse 100. Temp. 97° F. In May, he developed dry cough, due to plugging of the left bronchus with food. At the end of seven months, he began to improve very slowly, and is now almost well. The case differs somewhat from both anergic and melancholic stupor; from the first, in that consciousness and memory were not entirely in abeyance; and from the second, in that the muscles were flaccid and absolutely unresistant.

December 1, 1900.

Causes and Cure of Insomnia. By Sir James Sawyer.—After referring to the physiology of sleep, and to "secondary" insomnia, due to pain, fever, coughing, etc., which is to be relieved by the abolition of the original primary cause, the author discusses what he terms "intrinsic" insomnia. He groups the different varieties of intrinsic insomnia as follows: (1) psychic; (2) toxic; and (3) senile.

The brain in natural sleep is relatively anæmic, and is inactive; the cells are resting. Any cause preventing such resting on the part of the brain cells will produce relative cerebral hyperæmia and render sleep impossible. Or relative cerebral hyperæmia may be due directly to derangement of the cerebral blood supply.

In the psychic group, undue cerebral activity is the primary vice; its subjects are mostly men of the so-called nervous temperament.

In the toxic variety of insomnia the cause of the sleeplessness acts primarily upon the blood-vessels of the brain, causing arterial hyperæmia. The poisons with which we have to do are not lethal poisons. Tobacco, alcohol, tea, and coffee, are the external poisons which most frequently cause sleeplessness, while the internal or autogenetic poisons are certain waste products of tissue metamorphosis which accumulate in the bodies of gouty persons, or those whose kidneys are inadequate. Insomnia is not a constant accompaniment of smoking. It is most common where the smoker exceeds his usual indulgence in the habit, or uses a stronger tobacco than he has been accustomed to. Simply a restriction in the amount of tobacco used often brings about a cure. Snuff, too, may be a cause of sleeplessness. Many cases of insomnia are due to the use of alcohol; and this to a degree far short of what is usually termed alcoholism. Tea and coffee are powerful cerebral stimulants; their action is usually recognized by the patient, who remedies it for himself. The toxic insomnia seen in gout and inadequacy of the kidneys is usually not severe or complete. There is slumber rather than sleep. In such cases it is usually due to the maintenance of a state of high tension in the cerebral arteries; the pulse furnishes a valuable guide; and also the state of the second sounds of the heart.

Senile insomnia is mainly, if not entirely, the result of senile degeneration of the smaller cerebral arteries. They have lost their resilience and contractility, and are unable to adapt themselves to the condition of relative arterial anæmia necessary for normal, healthy sleep. This is, however, largely counteracted by the cardiac feebleness which so often exists; a conservative lesion. It must be remembered that senility is a relative term, depending upon the state of the arterial walls. (*To be continued.*)

The Relation of Veterinary Science to Human Medicine. By Sir C. J. Nixon.—A presidential address.

On the Operations for Congenitally Misplaced and Undescended Testicle. By T. Annandale, F. R. C. S.—The situations in which misplaced testicles have been met with are: On one side of the perinæum (most common), in the region of the saphenous opening in the thigh, and in front of the pubes at the root of the penis (very rare). When a testicle remains out of its natural position in the scrotum, it degenerates; in time its functions are entirely destroyed. The author has seen two such cases; in one, a child, aged three years, he performed the operation for the replacement of the testicle in the scrotum with perfect success. He gives the details of the operation as performed by him:

Undescended Testicle.—Should one testicle be properly developed and situated in the scrotum, the operation upon an undescended neighbor need not be so strongly advocated; but when both testicles have not thoroughly descended, or when one is retained in the abdomen and the other has not reached the scrotum, by all means operate at an early period of life. Hernia with undescended testicle also calls for operation; it is most difficult to apply a truss in such cases. Congenital deficiency of the testicle is a comparatively rare condition; the author gives brief notes of two cases seen by him. When such deficiencies are unilateral, the sexual functions and the bodily and mental power are not necessarily interfered with.

Fundamental Points Connected with the Pathology of Diabetes Mellitus. By Dr. F. W. Pavy.—Concurrently with the outflow of sugar in diabetes there is an increased amount recognizable in the blood, and the various symptoms encountered depend upon the presence of an abnormal amount of sugar in the blood. The amount of sugar that escapes in diabetes gives a measure of the amount of sugar that would reach the circulation from the food, and as insuperable difficulties attend the view that the carbohydrate matter of the food passes as sugar through the blood to the tissues for destruction, the fault lies antecedent to the entry of the sugar into the circulation. To provide for freedom from glycosuria, the carbohydrates of the food must be prevented from reaching the general circulation as sugar. This is done in three ways: The carbohydrates are transformed into fat, into proteid (by synthesis) and into glycogen. Where this triple process of assimilation is faulty, glycosuria occurs. By reducing the amount of carbohydrates in the food to its lowest limit (a diet free from carbohydrates is impossible to construct), the sugar may be made to disappear from the urine. A little carbohydrate food will be tolerated after a while, the amount of which may be gradually increased, until it may possibly happen that an ordinary diet can be resumed without occasioning a reappearance of sugar in the urine. This recovery of assimilative power is often very striking. In this article the author refers solely to "alimentary" diabetes, where there is no tissue-breakdown, and the elimination of sugar is controllable by regulation of the food. It is seen usually in individuals past middle life, and the prognosis is much more favorable than in "composite" diabetes, where the sugar is derived from the tissues of the body as well as from the food.

The Face and Pupil in Alcoholic Neuritis. By Sir T. Lander Brunton.—In alcoholic neuritis the face often becomes mask-like and expressionless, the mobile lips appearing to move apart from the cheeks. The eyes, also, move freely, but a fixed expressionless band seems to stretch across the nose and cheeks, between the eyes and lips. Another point noted is the condition of the pupil reflex, which is just the converse of the Argyll Robertson phenomenon. Its reflex to light is rapid and extensive; to accommodation, sluggish or entirely absent. There may even be a dilatation of the pupil on accommodation.

On the Causation of the Congenital Stridor of Infants. By Dr. J. Thomson and Dr. A. L. Turner.—The authors' most important conclusions are stated as follows:

1. The primary element in the causation of this condition is a disturbance of the coordination of the respiratory movements, probably due to some developmental backwardness of the cortical structures which control them.

2. The change of form found in the larynx is merely an exaggeration of the normal infantile type, due to the spasmodic nature of the breathing: *i. e.,* an acquired deformity strictly analogous to pigeon breast.

3. There is no proof that any congenital malformation of the upper laryngeal aperture exists in these cases.

4. The supposition of a congenital deformity is not essential to account for the symptoms.

5. The sounds are probably produced partly in the larynx proper, and partly at the abnormally approximated aryepiglottic folds.

6. The neurosis causing the symptoms does not seem to depend on the presence of adenoid growths or other causes of reflex irritation.

Cases of Acromegaly and Infantile Myxœdema Occurring Respectively in Father and Daughter. By F. M. Pope, M. B., and Dr. A. V. Clarke.—The authors report the case of a man, aged thirty-eight, in which the diagnosis of acromegaly was made, it being based upon the occurrence of a localized, symmetrical hyperplasia of the bones and soft parts of the forearms, wrists, hands and feet, which was gradually progressive. Although the fingers were somewhat clubbed, no evidence of chronic chest trouble was found, making a diagnosis of hypertrophic osteo-arthropathy untenable.

The daughter of the acromegalic patient, suffered from typical, infantile myxœdema, coming on at the age of five years. No improvement followed the employment of thyreoid treatment. So far as the authors can learn, no such case of direct hereditary connection between acromegaly and myxœdema has hitherto been reported. It is probable that there was a weakness of resistance common to both father and daughter, and that the former was unable to resist the factors producing acromegaly, the latter those producing myxœdema.

Hughlings Jackson and the Cortical Motor Centres in the Light of Physiological Research. By Dr. E. Hitzig.—(*Abstract.*)

Prognosis and Treatment in Pulmonary Tuberculosis. By Dr. R. Maguire. (See abstract of the *Lancet* for December 1, 1900, in this number of the *Journal.*)

Journal des praticiens, November 17, 1900.

Hysterical Contracture of the Scapula. By M. H. Morestin.

Lyon médical, November 18, 1900.

Osseous Hypertrophy in Infantile Hemiplegia.—M. Lannois and M. Fayolle report a case of infantile hemiplegia combined with athetosis, in which there was a marked hypertrophy of the bones of the hand and fingers. Theoretically, they believe that the constant athetotic movements might cause a hypertrophy of the bony structures as well as of the muscles, although they are also inclined to credit the skeletal hypertrophy to some irritation caused by the lesion upon the cortical cells.

The Mosquito Theory of Malaria.—M. P.-Just Navarre advances some arguments intended to overthrow the mosquito theory of the ætiology of malaria. (*To be continued.*)

Therapeutic Use of Salicylate of Amyl.—M. B. Lyonnet says this drug shows no disadvantages, whether given by the mouth or rubbed into the skin. The latter method is easy and certain of administration, the drug soon appearing in the urine. The results upon patients suffering from acute or subacute rheumatism, are excellent. The odor of the drug is agreeable.

Gazette hebdomadaire de médecine et de chirurgie, November 11, 1900.

Simple Acholuric Icterus.—M. A. Gilbert and M. P. Lereboullet define this condition as one in which there is a more or less marked yellowish tinge in the skin, generalized or localized, with no elimination of biliary coloring matter in the urine, although it is found constantly in the blood. It is a familial and hereditary condition and can be transmitted from parents to children with the most diverse forms of chronic biliary infection, such as biliary cirrhosis, splenomegalic icterus, biliary lithiasis, etc. The authors have studied the condition, however, as it exists uncomplicated by other varieties of biliary infection. It appears in its hereditary form largely among the Jews. Appearing at birth, it changes under certain influences; the biliary coloring matter in the blood is sometimes more intense than at others. Symptoms on the part of the liver and spleen are usually absent. Pruritus and urticaria sometimes appear when the jaundice deepens. The authors describe a dyspeptic form of the disease, a neurasthenic form, and a hysterical form. In the hæmorrhagic form, epistaxis and menorrhagia may appear. There is, finally, a rheumatic form in which the rheumatic symptoms are prominent, although they are secondary in appearance. The prognosis is usually good. The treatment is the same as that for biliary lithiasis.

November 15, 1900.

Relations between Buccal Leukoplakia, Syphilis and Cancer.—M. Alfred Fournier points out the preference of leukoplakia for the male sex. He says that, of 324 cases, 259 were syphilitics, and yet he believes that the disease can and does appear without previous luetic infection. He dwells upon the frequency of the disease in users of tobacco, and says that the use, or, rather, the abuse of tobacco, offers a predisposing tendency to the development of leukoplakia. Cancer frequently develops upon this basis, in about twenty-nine per cent. The disease does not yield to antisyphilitic treatment, although the author does not deny that it may be a parasyphilitic disease, that is, a disease derived from a causal syphilis without being syphilitic in nature. Its tendency to degenerate into a malignant form and the fact that many luetic persons suffer from it, makes leukoplakia a formidable disease among those afflicted with syphilis.

Presse médicale, November 14, 1900.

De Musset's Sign in Pleurisy.—M. H. Frenkel writes of this physical sign named after the poet de Musset, who presented the phenomenon. It consists of a rhythmical antero-posterior nodding of the head, absolutely synchronous with the radial pulse. It was believed to be pathognomonic of aortic disease, but Frenkel has observed it in a case of left pleurisy with large effusion. The abundance or amount of the effusion appears to play a rôle in the mechanism of the phenomenon. It is likely that the circulatory system is not alone responsible for the production of this physical sign, but that transmission, as to the vertebral column, may be an evoking agent.

November 17, 1900.

Immunity from the Standpoint of "Lateral Chains" of Toxines and Antitoxines. By M. C. Levaditi.

Berliner klinische Wochenschrift, November 5, 1900.

Mechanism of Certain Cortical Disturbances of Vision in the Dog. By Dr. Eduard Hitzig.

Nephrectomy for Calculous Pyelonephritis.—Dr. Leopold Thumim reports a case in which, by means of the subcutaneous injection of phlorrhizin and the subsequent separate catheterization of the ureters, the absence of the sugar reaction from the right kidney demonstrated its diseased condition. The case is reported for this reason.

Purpura Rheumatica and Angina.—Dr. Alfred Bruck reports four cases of lacunar amygdalitis accompanied by a purpuric eruption and articular rheumatism. He emphasizes the relationship between amygdalitis and acute articular rheumatism, and says that they are the expression of an acute infectious disease evoked by pyogenic organisms.

Urinary Calculi. By Dr. C. Posner.—This is a critical essay on the origin, diagnosis and treatment of urinary calculi in any part of the genito-urinary tract.

Clinical Value of Schmidt's Method of Testing Intestinal Functions. By Dr. Hans Philippsohn.

Wiener klinische Rundschau, November 18, 1900.

Lithiasis in Bosnia. By Dr. Josef Preindesberger. (*To be continued.*)

Results of Bottini's Operation for Prostatic Hypertrophy.—Dr. Albert Freudenberg writes of the excellent results he has obtained with Bottini's operation. Of 753 cases, there were forty-four deaths, a percentage of 5.84; this can be reduced by excluding doubtful cases, to 4.25 per cent. The tendency to recurrence seems minimal, and is the less the more perfect the original result. The operation should always be preceded by cystoscopy. The author describes and figures a prostatic incision with cystoscopic attachment devised by him and Dr. Bierhoff.

Röntgen Rays in Congenital Dislocation of the Hip. By Dr. Peter Bade. (*Continued.*)

Medicinisch-chirurgisches Central-Blatt, November 16, 1900.

Symptoms of So-called "Latent Syphilis." By Dr. C. Ströhmberg. (*Abstract.*)

Advances in the Treatment and Knowledge of the Acute Infectious Diseases. By Dr. Rudolf Fischl. (*Abstract.*)

Centralblatt für innere Medicin, November 17, 1900.

Bacteriological Blood Examinations in Pneumonia.—Dr. A. Prochaska has examined the blood of ten patients ill with acute lobar pneumonia. In all of them, the pneumococcus was found. Pure cultures were obtained without contamination, even after animal experimentation. It was striking that, in several instances, the pneumococci required more than twenty-four hours in bouillon cultures to develop.

Medicinische Woche, November 12, 1900.

Sugar as a Nutritive Agent. By Dr. Lebbin.

Stab-wound in a Woman.—Dr. Y. Ikeda reports the case of a woman who accidentally ran a bamboo stick through the perinæum from the neighborhood of the anus into the abdominal cavity. With the exception of the formation of an extra-peritoneal abscess which was opened, no complications ensued except the formation of a vesico-vaginal fistula, which closed spontaneously in a week. The author considers it remarkable that neither tetanus nor a general peritonitis followed the accident.

Wiener medizinische Blätter, November 15, 1900.

Study of Brain Cases.—Dr. L. Hashovec reports the case of a man who, ten years ago, had had a mastoid operation, and suffered at intervals from vertigo accompanied by severe headaches which increased in severity with movement of the head; there were cerebral vomiting, atactic symptoms, binocular diplopia and convergent strabismus with normal fields of vision. Further symptoms were increased reflex irritability, hysterical laughing and crying. The temperature was normal and the fundus oculi showed nothing abnormal. (*To be continued.*)

Hepatic Syphilis in Adults.—Dr. Otto Fischer considers the symptomatology of this affection. There are occasional pains, the liver is hard and nodular when enlarged, the spleen is almost always enlarged, but ascites is usually absent. Severe jaundice speaks in favor of some other hepatic disease, although it may be present. The temperature curve is rarely of importance. (*To be continued*).

Tannigen.—Dr. Eugen Sieger speaks highly of tannigen as an excellent styptic and tonic in intestinal affections, and recommends its use in the diarrhœas of phthisis and tuberculous peritonitis, as well as in acute and subacute enteritis. He finds tannigen especially useful for children on account of its prompt action and nontoxic properties.

Deutsche Medizinal-Zeitung, November 15, 1900.

Hyperemesis Gravidarum. By Dr. I. M. Lwow (*continued*).

Soluble Silver Preparations. By Dr. A. Kronfeld.

November 19, 1900.

Hyperemesis Gravidarum (*conclusion*).—Dr. I. M. Lwow recommends interruption of pregnancy when vomiting so interferes with the patient's nutrition as to threaten her life. Under three months, he curettes the uterus, after that period he induces labor by Krause's method (the bougie). Vomiting almost always stops immediately, but the patient must be carefully and regularly fed on nutritious food. If the pregnancy continues and vomiting persists, resort must finally be had to nutritive enemata.

Centralblatt für Gynäkologie, November 17, 1900.

Rare Form of Perineal Rupture.—Dr. Fritz Engelmann records the case of a primipara who spontaneously delivered herself of a large child. When seen shortly afterward, the perinæum was externally intact, but just above the anus was seen an irregular hole the size of a penny. This communicated with the vagina. The sphincter was only slightly torn. The intact bridge of tissue was left undisturbed and the patient made an afebrile recovery.

Extirpation of the Vagina for Prolapsus Uteri.—Dr. Siegfried Stocher records such a case in which he left a small strip of vaginal tissue on one side, so that the vagina should not be entirely closed, as the woman was still menstruating. The result was excellent anatomically, and the vagina, which barely admits one finger, allows the menstrual blood to escape.

A "Parturition Cloak."—Dr. Alfred Jahs describes an apparatus, part of which is thrown over the parturient woman's back and part over the foot of the bed, thus allowing of pulling during the expulsive stage.

A Simple Leg-holder. By Dr. Johann Callabin.

Sperimentale, Fasc. 4, 1900.

Concerning the Motor Functions of the Intestines. By Dr. Sabbatani and Dr. Fasola.—The authors' conclusions, based upon an extensive series of investigations, are as follows: (1) Our experiments exclude the existence of antiperistaltic movements, even in cases in which the intestines are placed in artificial positions, corresponding to anomalous or pathologic conditions. (2) The lower end of the ileum is endowed with more motility than the rest of the small intestine. This fact corresponds with anatomical peculiarities of the lower portion of the ileum, and is explained by the greater degree of inspissation which the intestinal contents has reached when it enters into that portion of the tract, and also by the resistance which it has to overcome in passing through the ileocæcal valve.

The Alterations in the Renal and Hepatic Cells in Experimental Hyperthermia. By Dr. A. Bentivegna.—The author has studied the effects of high temperature upon the parenchyma of the liver and kidneys. A number of animals were kept in thermostats for varying lengths of time. The temperature in the chamber was raised, and the variations in the temperature of the animals were noted. After this exposure to heat, some of the animals died and others were killed by the observer. The lesions in the livers of these animals were as follows: Cloudy swelling of the liver cells, with evident destruction of the cytoplasm, were found in the cases in which the exposure to high temperature had been prolonged. In addition, there was hyperæmia of the nuclei, and hyperæmia with marked dilatation of the capillaries and of the biliary canaliculi. In places there were small hæmorrhagic foci, interstitial or intralobular. Slight small-cell infiltration of the connective tissue with a mild periarteritis, periphlebitis, and periangeiocholitis; also fatty degeneration of the liver cells in cases in which the hyperthermia had been maintained for a long time. The lesions found in the kidneys of these animals were as follows: (1) Glomerulitis, which was more intense in the animals that had been subjected to the action of heat for a long time. (2) Cloudy swelling of the epithelial cells, of the convoluted tubules, of Henle's loops, and of the straight tubules, and marked disintegration of the cytoplasm in proportion to the time of exposure to heat. (3) Marked hyperæmia of the glomeruli and of the stroma, and, in places, small intraglomerular and interstitial hæmorrhagic foci. (4) In the animals that had been exposed for a considerable length of time, a slight periarteritis, and periphlebitis. (5) Fatty degeneration of Henle's loops, of the straight tubules, and, less often, of the convoluted tubules in the animals that had been exposed for a long time.

A New Form of Infectious Pneumonia in Guinea-pigs. By Dr. F. Strada and Dr. R. Traina.—The authors describe an epidemic form of pneumonia which occurs in guinea-pigs and is due to a new germ, which they propose to call the *Bacillus pneumoniæ caviarum.* The disease assumes a special type of pneumonia in foci, and is accompanied by characteristic lesions in the lungs of the animals affected.

Rivista critica di clinica medica, September 22 and 29, and October 6, 1900.

Concerning Delirium in the Course of Infectious Diseases. By Dr. Luigi Silvagni.—The author's observations on this subject enable him to conclude that delirium in the course of infectious diseases occurs most frequently in individuals with a neuropathic hereditary taint, or in persons predisposed by the precedence or concomitance of a functional nervous disorder, or by the abuse of alcohol, or by excessive mental or physical weariness. The diagnosis between infectious delirium and a true psychosis is not of importance, inasmuch as the latter so rarely takes place in an acute infectious disease. The genesis of delirium in infectious diseases is very complex—fever, toxæmia, exhaustion, and other factors which are less well known, play a rôle in its causation. The particular type of delirium found in a given individual depends upon the mental make-up of the patient, and not upon the nature of the infection. The delirium of infectious diseases may assume the aspect of any disorder of the mind.

October 27, and November 3 and 10, 1900.

Concerning the Blue Corpuscle, its Significance in the Blood of Anæmics and its Absence in the Blood of Healthy Persons. By Dr. Giuseppe Poggi.—The author described, in 1895, a phenomenon which he had observed in the blood of anæmics—namely, the occurrence of a red blood corpuscle that stained with methylene blue when a fresh specimen of blood was drawn from the finger of the patient. In this manner, the anomalous corpuscle could be distinguished from all its fellows that proved refractory to the methylene blue, in spite of all attempts to stain them with this dye. He called the new corpuscle the "blue corpuscle" for the sake of brevity, and other observers have since then applied the name "cyanophilous" to the new cell. He assumed that the blue cell was an embryonal red corpuscle that had entered prematurely into the circulation, and that its presence indicated a disordered evolution of the blood cells, due to the insufficiency of the hæmatopoietic organs. In the present article the author answers the objections of other observers who have studied the phenomenon in question critically and experimentally. The fact that the number of blue cells in the blood of anæmic individuals varies from day to day may be accounted for by faults of our technique, the cells being easily destroyed; also by the fact that these cells are lighter than the other elements of the blood, and therefore will be found near the walls of the capillary tube which is used to draw the blood, and may adhere to the tube, etc. The author also replies to D'Amato and Villari, who state that they have found the blue corpuscles in the blood of healthy individuals, and says that there is no definite limit between health and disease; that in two of the cases cited by D'Amato and Villari there had been no blood-count, and that the other patients of whom these authors speak were not models of health, having only from 75 to 90 per cent. of hæmoglobin. He concludes with the statement that, while his own theory as to the significance of the blue corpuscle may not be perfectly proved, no better hypothesis has as yet been offered by those who oppose it.

Klinitchesky Journal, October, 1900.

Bronchopneumonia after Typhoid Fever. By Dr. Nothnagel. (A clinical lecture.)

A Tumor of the Mediastinum. By Dr. K. Kardascheff.—The patient was a man aged forty-seven years, who entered the clinic with swellings in the neck, dyspnœa, cough, a constant feeling of oppression in the chest, a moderate pain in the side on inspiration, œdema of the right wrist and of both knees and ankles, and progressive cachexia. On percussion, there was dulness in the right supra- and infraclavicular regions, ceasing abruptly at the second rib; there was also dulness over the entire sternum, and to the right of the sternum, extending for about a finger's breadth. Slight dulness was also noticed under the right scapula, extending forward to the posterior axillary line. These areas of dulness did not change in position when the attitude of the patient changed. The pulse of the right wrist was weaker than that of the left. The existence of dulness and of assymmetry in the radial pulse suggested aneurysm, but if the patient had had an aneurysm of the size indicated by the area of dulness, there would have been pulsation and a bruit. Fluid in the pericardium was also excluded, because the apex beat was distinct and the tones of the heart clear. The diagnosis of mediastinal tumor was then made, and the rapid cachexia pointed to a malignant growth. The patient died in coma, after a period of exhaustion, four weeks after admission. The autopsy showed a mass of enlarged glands on both sides of the neck, extending under the pectoral muscles and into both axillæ. In the right pleural sac there was about 1,500 cubic centimetres of sero-sanguinolent fluid. The entire surface of the right lung was covered with little white nodules of the size of a pea, but, on section, the lung tissue was found normal. The anterior mediastinum contained a conglomerate of glands of the size of two fists, and a large lymphnode was found encroaching upon the trachea at its bifurcation. Microscopic examination showed the growth to be a lympho-sarcoma.

Concerning Œdema in Bright's Disease. By Dr. N. Kabanoff. (*To be continued.*)

Journal Akouscherstva i Gienskich Boliesney, September, 1900.

Kraurosis Vulvæ. By Dr. G. I. Himmelfarb.—The patient was a woman aged thirty-four years, multipara, who began to complain of itching in the region of the external genitals two years before admission. During the last six months the itching had become very intense, and there was, in addition, a burning pain on micturition, and finally incontinence of urine. At this time there also appeared a feeling of tension and a severe pain in the vulva. On examination the labia and the introitus were found to be of a pearly white color, the skin very friable and easily torn on stretching. The treatment of kraurosis in cases which demand intervention consists in excision of the vulva as suggested by Martin.

Concerning Rupture of the Uterus. By Dr. Tomson and Dr. Zile.—The authors report a case of rupture of the uterus which occurred under their observation. The peculiarity of this case was the fact that there were no mechanical reasons for the rupture, although the hydramnion that was present may have weakened the uterine walls; but the waters escaped long before the rupture. The presentation was breech, sacrum anterior, and the labor was fairly normal until the beginning of the second stage, when the patient suddenly grew pale and complained of weakness. The pains almost ceased, and about a glassful of blood was discharged from the vulva. At this time the child's buttocks were at the level of the vulva. A catheter introduced into the bladder at this juncure removed a quantity of fluid blood. The head of the child could now be felt directly beneath the abdominal wall; the pulse was 116, the respirations 22. The diagnosis of complete rupture of the uterus was made, and an incision in the median line showed a dead asphyxiated fœtus at full term, whose head was in the epigastric region. The fœtus was removed, together with a quantity of blood which was found in the peritoneal cavity. A large irregular tear of the anterior and left lower aspect of the uterus was then discovered. The tear extended into the left parametrium, and was contiguous to a very extensive hæmatoma. In addition, there was a rupture of the bladder extending from the apex to about two-thirds of the circumference of this organ. Supravaginal amputation of the uterus, and suturing of the tear in the bladder, packing of the wound in the parametrium, and insertion of a tampon into the bladder, drainage into the wound, suturing of a portion of the abdominal wall, and insertion of a permanent catheter, were the steps of the operation. During the first few days after the operation the patient's condition was satisfactory, but later she became rapidly worse, and died five days after the operation with the appearances of peritonitis. The examination of the uterus microscopically showed that there were pathologic changes in the elastic fibres of this organ which probably predisposed to rupture. In places, these elastic fibres were even totally absent, and the author regards this circumstance as the most probable cause of rupture in many instances of so-called spontaneous tearing of the uterus.

Concerning the Operative Treatment of Incontinence of Urine by Goubareff's Method. By Dr. N. N. Michailoff.—The patient, a peasant woman, aged thirty-eight years, was severely injured by being run over by a field wagon, the injury including a laceration of the abdominal wall, a fracture of the os pubis, and a contusion of the genitals. The wounds healed in the rural hospital after a stay of six weeks. After discharge, she complained of incontinence of urine and presented herself to the author for this trouble. On examination a sound in the bladder revealed the presence of a rough stone of considerable size. The urine had an ammoniacal odor and contained pus. Irrigations with weak solutions of silver nitrate were ordered, and salol was given internally. The operation consisted of removal of the stone by means of the lithotrite and a strong forceps. Two weeks later, the second operation was performed with a view of relieving the urinary incontinence. Under cocaine the prolapsed portion of the mucous membrane of the urethra was removed, and the defect sutured with fine catgut. In addition, three sutures were introduced into the thickness of the wall of the urethra, and the lumen of the canal was materially lessened by drawing these sutures and tying them. A small-sized Nélaton's catheter was then introduced into the bladder, and on the second day after the operation the catheter was removed and the urine was retained.

A Home-made Pessary. By Dr. S. D. Iampolsky.—The author gives an account of a woman who suffered from prolapse of the uterus, but lived in the country, far away from medical assistance. Another peasant woman, to whom the patient related her trouble, made a pessary for her, by winding a number of very thin strips of bark from young trees into a ball, and this pessary not only relieved all symptoms, but was worn continuously for six years. At the end of that time, however, leucorrhœa appeared and the discharge became foul, no doubt from the decomposition of the organic matter in the pessary. The case is remarkable for the length of time during which such a pessary was worn with impunity. It is possible that the bark contained some substance that had antiseptic properties.

Concerning the Duration of Labor, Pregnancy and the Puerperium in Young Primiparæ. By Dr. N. P. Mariantchik. (*Continued.*)

Roussky Archiev Patologyi Klinitcheskoy Meditsiny i Bakteriologyi, September, 1900 (Russian Archives of Pathology, Clinical Medicine and Bacteriology).

Studies Concerning the Morphology of the Blood in the Fœtal and Newly Born Rabbit. By Dr. Tchistovitch and Dr. V. Pivovaroff.—Cæsarean section was performed in rabbits during the last stages of pregnancy, and the cutaneous veins of the neck of the fœtuses were opened. The blood was examined in twelve fœtal rabbits, with the following results: 1. The number of red cells was always smaller than that found in adult rabbits. Many nucleated red cells were found. 2. The number of white cells was very small, and the following varieties of leucocytes were observed: Polynuclear leucocytes with pseudo-eosinophile or eosinophile granules, 41.3 to 62.7 per cent.; large mononuclear, 11.8 to 28 per cent.; lymphocytes, 4 to 26.5 per cent.; and also many polynuclear or mononuclear leucocytes with polymorphous nuclei, representing transitional forms between large mononuclear and pseudo-eosinophiles.

The examination of the blood in the newly born rabbits showed a noteworthy increase in the number of white cells during the first few days after birth. The blood of these rabbits, however, contained a considerable number of nucleated red cells. The small number of white cells found in the fœtal rabbit may be explained by the fact that during intra-uterine life the organism of the fœtus is protected from microbic invasions and other injurious agents by the blood of the mother, and thus can spare the phagocytic influence of the white cells.

Concerning the Use of Romanovsky's Stain for Malarial Parasites. By Dr. V. K. Stefansky.—In a recent article, Feinberg has shown that all bacteria have the structure of cells, and contain a nucleus and cytoplasm. Romanovsky's stain, which the latter described in 1891, served to differentiate the nuclei from the surrounding cytoplasm in Feinberg's investigations. Romanovsky's stain was first applied to the coloration of malarial parasites by Gauthier in 1895, but this method did not become popular because successfully stained preparations resulted very rarely, often in not more than two per cent. of cases. In 1898, Ziemann published his studies on the staining of chromatin in malarial parasites by means of Romanovsky's method, and he was followed by a number of investigators who tried to modify the method in such a way as to obviate the disadvantage of the formation of a black precipitate in the preparation of blood specimens, and to render the staining of chromatin by this process less a matter of chance. Finally Ruge, of Berlin, succeeded in devising such a modification. He found that the best results were obtained with methylene blue from the chemical works at Hoechst, and with the eosin of the same factory, brand BA, although the methylene blue of Gruebler also gave good results. The dye was prepared as follows: To a one-per-cent. aqueous solution of the blue dye, there is added 0.1 per cent. of chemically pure crystalline soda, and the mixture is placed in a thermostat for twenty-four hours at a temperature of 55° C. Next 0.2 per cent. of caustic soda is again added, and the mixture allowed to stand in a thermostat for the same length of time at the same temperature. The blue solution then contains a new dye which is called *Roth aus Methylenblau,* and in thin layers the mixture assumes a violet color. Enough one-per-cent. aqueous solution of eosin is now added to produce a sediment in a sample of the dye, and then only one-half this quantity of eosin solution is added to the blue when the stain is to be used. The stain is poured into watch crystals and the specimen of blood on coverglasses is heated for two minutes in the mixture until steam appears, and after an interval of two minutes it is again heated for from one to two minutes, after which a metallic film appears on the surface of the dye. After keeping the specimens in the dye for two minutes longer, the coverglasses are carefully washed in water, and to the naked eye they look absolutely colorless.

The author reports very favorable results from the use of this method, and claims to have obtained unusually clear pictures of the malarial parasite. In the young parasite the chromatin is colored red or reddish violet; in the spore stage it assumes a violet tint. The body of the parasite is dyed a blue or pale blue color, the white blood cells are deeply stained in the usual manner, and the red cells are almost colorless. The last circumstance is a disadvantage which may be obviated by staining the preparation for one or two minutes in weak solutions (1 to 2,000) of eosin after they come out of the mixture. In two cases of tertian malaria the author was able by means of this method to observe distinctly the mottling of the red cells described by Schuffner and Ruge, which is supposed to be a means of distinguishing tertian from quartan types. The method is simple and exceedingly valuable.

The Growth of the Lungs and Intestines in Man. By Dr. M. S. Milmann.

A Simple Method of Determining the Amount of Sodium Chloride and Margarine in Butter. By Dr. B. Orjechovsky.

Brooklyn Medical Journal, October, 1900.

Observations on the Obstetric Surgery of Pelvic Contraction. By Dr. Charles Jewett.—The opinion seems to be that pelvic contraction is very rare in this country. The author believes, however, that the frequency of this anomaly does not differ materially from that in the old world. It is present in from ten to fifteen per cent. of all parturients. There is urgent need of more systematic pelvimetry in our hospitals and in general practice. The minutiæ of pelvimetry are considered. Among the more useful indications of pelvic contraction at labor are the following: (1) Failure of the head to engage during active labor. (2) Failure to engage the head by well-directed suprapubic pressure. This is a diagnostic point which may often be employed to advantage in the few weeks immediately preceding labor. (3) Failure of tentative traction with forceps. In partial engagement of the head, the latter should always be tried with the aid of the Walcher posture before resort to cutting operations. The methods of delivery in pelvic contractions, are (1) spontaneous delivery; (2) craniotomy; (3) the induction of premature labor; (4) symphysiotomy; (5) Cæsarean section. Each of these subjects is discussed in the article, and the usual text-book comments are made thereon.

The Medical Faculty as Factors in History. By Dr. Homer L. Bartlett.—This address before the Kings County Medical Society, on April 17, 1900, demonstrates within a brief compass that if medical men have not gained glory on the battle-field, in legislative halls, or in courts of diplomacy, nevertheless in discovery, literature, and science, they have ever been preeminent. "Who," says the author, "would not rather—much rather—have been a Harvey or a Jenner than a Cæsar or a Napoleon?"

Æsculapius, husband of Epion, and father of Hygeia and Panacea, for his great skill in depopulating Hades, was destroyed by Jove with a thunderbolt. Since that time, according to the author, his descendants have never dared to use their utmost skill for fear of a similar fate.

Hippocrates and Galen are next considered. Hippocrates [460 B. C.] never dissected a human body; Galen [500 years later] and his contemporaries did, and recorded their observations for posterity. Nicholas Leonicenus [1428] studied at Padua, lectured at Ferrara, cultivated the Greek writings, and corrected the Arabic translations. Thomas Linacre caused a law to be passed in England forbidding any one to practise medicine unless he had the degree of M. D. from Oxford or Cambridge, or was licensed by the faculty of the College of Physicians of London.

Mundinus, Sylvius, Vesalius, Eustachius, Falloppius, Harvey, Des Cartes, Ambroise Paré, Haller, Avenbrugger, and Jenner, flourished at the period of revival of all branches of knowledge, and it may interest the elect to know that Rabelais acquired a great medical education for his time, and was appointed physician to the Hospital at Lyons, in 1532. Tobias George Smollet, Oliver Goldsmith, and Sir Hans Sloane were other luminaries of the "Med. Fac."

The author brings his interesting historiette to a close with brief reviews of the careers of Darwin, Livingstone, Kane, Holmes, Doyle and Mitchell.

Montreal Medical Journal, October, 1900.

Tuberculous Lesions from a Clinical Point of View. By Edmund Owen, F. R. C. S.—This is the address in surgery delivered recently before the Canadian Medical Association, Ottawa. See Abstract of the *Lancet* for September 15th in *New York Medical Journal* for October 6, 1900.

Some Suggestions as to the Treatment of Locomotor Ataxia, Based upon the Experience of Thirty Years. By Dr. Allan McLane Hamilton.—The author believes that many tabetics are favorable subjects for "expectant attention," and clutch at any straw that may be thrown to them, saying that they feel better for a time. Results may sometimes cause the physician to be unduly sanguine in advocacy of some new remedy. Even with syphilis present as a tangible ætiological factor, the iodides and mercury have not done very much for established tabes.

As to its ætiology, the author, especially of late years, has been forced to believe that this disorder, as well as general paresis—its relative—develops after protracted mental and physical exhaustion of various kinds. Venery is not important as an ætiological factor; any prolonged strain may produce a similar result, and, in a patient referred to, the condition followed upon the laborious work involved in bending over to pack or unpack the sample trunks used in his occupation of a commercial traveller.

The most good has been done where little or no medicine has been given. A line of treatment as good as any, includes *absolute rest*, the suspension treatment, and systematic and persistent cauterizing of the back. While we should strive to help our patient if possible, it should be in the direction of an improvement in the general condition and the treatment of special symptoms, in reference to the use of gold or silver, or various remedies which belong to the armamentarium of the mediæval leech, rather than to that of the progressive physician of to-day.

Notes on Atropine. By Dr. R. D. Rudolf.—The effects of atropine on the heart closely resemble those produced by section of both vagi. The results of a series of experiments on dogs are given. In effect, the author's purpose is to urge the more general use of atropine in those cases of failure of the circulation, from whatever cause, where "the most powerful of all stimulants" is indicated.

Some Experiences in the Methods of Treating Hernia by Operation. By Dr. Francis J. Shepherd.—In regard to sutures, the absorbable ones are the best, and, if such a one is antiseptic it is to be preferred. A suture that will last about three weeks is all that is wanted. Strong chromicized antiseptic catgut is ideal. The author never washes out the wound, for water in the loose cellular tissue distends it and makes it less resisting to germs. The mortality from the operation is practically *nil* in nonstrangulated cases. Although formerly operations on children were not advised, except in strangulated hernia, these operations are now our most successful ones.

Empyema. A Study of Thirty Cases from Clinical and Bacteriological Standpoints. By Dr. W. F. Hamilton.—As to prognosis, very much depends upon the nature of the infection: this is of the greatest importance. In the second place, the readiness or otherwise with which the compressed or retracted lung returns to fill the cavity, marks the difference between a case of favorable and rapid progress to complete healing, and a protracted one, ending possibly in extensive rib resection with deformity. As to the bacteriology, the two main features, as shown by the author's table, are the comparative frequency of staphylococci and the rarity of the *Diplococcus pneumoniæ*. Some doubt must remain as to the exact relationship which the bacteria bear to the production of pus.

A Case of Primary Carcinoma of the Lacrymal Gland; Extirpation of the Growth by Kronlein's Operation; Systematic Examination of the Excised Eyeball. By Dr. Frank Buller, and Dr. W. Gordon M. Byers.

Miscellaneous.

Retention of a Two Months' Ovum in Utero for Nine Months—A Case of Medico-legal Importance.—Dr. Ralph Worrall (*Australasian Medical Gazette,* September 20th) reports the case of a woman, aged twenty-three years, who had been married four months, who consulted him on November 1, 1899, for amenorrhœa of two months' duration, the menses having previously been perfectly regular and normal. He noted—"Uterine pregnancy of about six or eight weeks—everything physiological."

On March 20, 1900 (nearly four months afterward), she again consulted him, "to know why she was not larger." On examination, he again found the uterus of the size of a sixth or eighth week pregnancy, and on subsequent examinations, at intervals of a month, in April and May, he noted the physical signs to be exactly the same. The patient, during all these months, looked in robust health, and expressed herself as feeling "grand." There had been slight morning sickness up to his visit in November, but none since. Amenorrhœa had been complete, except for a show during a few days of April.

Up to May 30th, although he firmly adhered to his diagnosis, he did not counsel interference, as there were absolutely no symptoms. On that date, however, the patient being in *statu quo,* he passed the sound, which entered to a depth of four inches. On June 8th, just nine months from the commencement of the pregnancy and seven months from the date of the first consultation, eight hours of severe labor resulted in the expulsion of an ovum the size of a hen's egg. On section, turbid liquor amnii escaped, but no blood clot. The fœtus, one inch long, and the umbilical cord, half an inch, were distinct. There was not the slightest sign of decomposition, nor did the specimen exhibit any of the characteristics of a mole.

The only evidence of a pathological condition present lay in the elevations and depressions on the fœtal surface of the membranes, which indicated that it was an example of endometritis decidua tuberosa. In this disease, a good account of which will be found in Lusk's "Midwifery," there is a hyperplasia of the decidua, relatively greater in some areas than others; hence the tuberosities. It is said to lead invariably to the expulsion of the ovum before the fourth month. In the author's case, the pregnancy did not terminate until the ninth month, and probably would have continued longer had he not passed the sound.

Missed abortion, says the author, is usually defined in the text-books as "the death of the fœtus, threatened abortion, the subsidence of the symptoms, and the retention of the ovum for a varying length of time." In this case there were no symptoms whatever of threatened abortion, beyond a very slight show of blood in the seventh month, and, therefore, he has not designated it a case of missed abortion.

Upon this unusual case, the author makes the following very sound comment:

"That the subject may be one of great importance is clear. Had this woman's husband been absent for eight or nine months prior to the expulsion of this ovum, there are few medical men, who, seeing the patient then for the first time, would not have felt convinced that illicit intercourse must have taken place about two months previously. The opportunity I have had of watching this case throughout, and thus verifying the facts, made me feel that it was a duty to place on record what is undoubtedly of much interest from a medical standpoint, and might possibly be of no small assistance to the cause of justice."

The Rôle of Domestic Animals in the Causation of Typhoid Fever.—Dr. W. Royal Stokes (*Maryland Medical Journal,* November) undertook this inquiry at the suggestion of Dr. John S. Fulton, who has been associated with him in the work, under the auspices of the State Board of Health of Maryland.

He says that the study of house epidemics of typhoid fever in farming communities quite often illustrates certain defects of our knowledge as to the causation of typhoid in general.

The occurrence of a series of typhoid cases in an isolated farmhouse is poorly explained by the detection of colon bacillus in a well. Here, direct infection of the water supply by human excrement may be excluded, and the theory that the living typhoid bacilli may traverse many feet of soil lays a heavy tax upon one's reasonable faith in natural barriers. We assume that by whatever route the colon bacillus has reached a well, by the same route the typhoid bacillus may travel. But when we attempt to retrace the path of the colon bacillus from a farm well, the reasonable probabilities lead seldom to the bodies of men, and often to the bodies of animals, when we must either return to follow some more doubtful clue, or else confront the hypothesis that the intestines of an animal were in the route traversed by the typhoid bacillus.

It seems worth while, then, to inquire whether the typhoid bacillus can pass alive and virulent through the intestines of animals. If so, the very wide and nearly uniform distribution of typhoid fever in this country will have been explained better than on the theory that human excretions alone furnish the seed, and we shall recognize the need of precautions not heretofore suggested.

If, on the other hand, it is found that the typhoid bacillus cannot survive in the bowels of animals, we shall know that the prevention of typhoid fever is to be accomplished by the destruction of infectious material thrown off by man alone.

The belief that animals may serve as hosts of the typhoid bacillus, and may pass on the infection to man, has abundant support in analogy, *e. g.*, anthrax, rabies, glanders, vaccinia, plague, malaria, tuberculosis, actinomycosis, filariasis, trichinosis, and a considerable list of grosser parasitic affections.

Dr. Stokes then says that it was formerly believed that animals suffered with typhoid, and summarizes the views and investigations of Roberts, Serres, Kloten, Allen of Pietermaritzburg, Murchison, Klein, Birch-Hirschfeld, Klebs and Chomjakov, Gaffky, E. Fraenkel and Simmonds, A. Fraenkel, Michael, Fodor, Seitz, and many others. The authors' experiments consisted in feeding various animals with cultures of typhoid bacilli. In conclusion Dr. Stokes says:

"In our experiments we have endeavored to produce infection through the natural route and by natural means by simply allowing the various animals to take in very large quantities of typhoid bacilli in their daily food. Although at least 500 colonies from the fæces were carefully tested, we were not able to demonstrate the presence of any typhoid bacilli in two chickens, two white rats, two rabbits, two guinea-pigs, one calf, and two pigs. Although we have not employed a large number of animals, we feel justified in expressing the opinion that the typhoid bacillus cannot, as a rule, maintain its struggle for existence in the intestines of the domestic animals. We therefore conclude that the dejecta of animals play no considerable part in the distribution of typhoid fever."

The Parasitic Origin of Cancer.—Dr. Antonio Carini, in a Histological and Experimental Contribution to the Ætiology of Tumors (*Il Policlinico,* April 15; *Treatment,* August), remarks that no pathological problem has given rise to more discussion and to more experimental inquiries than has the origin of tumors. The theory that has received the greatest support is that tumors are due to the action of micro-organisms. And, in some ways, malignant tumors appear to resemble infectious maladies, themselves the result of bacterial action. For instance, the tendency of cancer to cling, as it were, to certain houses, or even rooms of houses; the fact that cancer may be communicated from one part to another when these are adjacent, as from one lip to another; the possibility of inoculation of tumors being carried out. But the latter facts are just as easily explained on the assumption that the actual cells of the growth are introduced into the sound structure. First of all, it was considered that the parasites in question were schizomycetes, next they were described as sporozoa, and now we are told that blastomycetes are the real offenders. The author gives a full account of the observations on which these various theories were founded, and calls special attention to the discovery by Russell in 1890 of certain peculiar bodies in cancerous growths, which, from their power of staining deeply with fuchsine, were described as "fuchsinophiles," and which were classed as blastomycetes. The author has set himself the task of ascertaining if it is possible to obtain blastomycetes from malignant tumors removed from the living subject, and, having obtained the same, to make cultivations thereof; next, if such isolated blastomycetes can, by being introduced into living animals, produce malignant growths; to stain the same organisms in the affected tissue; and, lastly, to ascertain if these organisms occur elsewhere than in malignant tumors. Now, he thinks that the result obtained practically settles the question as regards the potency of these micro-organisms in causing malignant growths, for even when the presence of the blastomycetes of Russell had been detected by histological methods, yet it was not possible to isolate these bodies. With pure cultures of blastomycetes in animals, in no case were neoplastic growths produced. The very nature, whether blastomycetes or not, of the bodies described by Russell is doubtful. Further, such bodies occur, and not rarely, in other structures. They were found in tuberculous lesions, and even in healthy tissues. Lastly, the bodies described as sporozoa do not absorb the colors which are characteristic of blastomycetes. The conclusion drawn by the author of this paper is that all the effusions which have been produced concerning the parasitic origin of cancer, etc., are absolutely groundless and altogether erroneous.

Potassium Nitrate as an Antidote to the Venom of the Rattlesnake, Centipede, etc.—Dr. F. Howard (*St. Louis Medical Era,* October) says that nitrate of potassium seems to neutralize the poison of these and other reptiles in the blood. He records cases in point. The painful annual recrudescence of eruptions, which sometimes occurs after these venomous intoxications, is also well treated by potassium nitrate; while he has never known such annual recrudescences to occur when it was used as the treatment in the first place. The author refers to an old Louisiana planter who always kept on hand a strong solution of saltpetre in whiskey which was administered freely internally and applied externally when any one on his estate was bitten by a rattlesnake, and he is said never to have lost a single case from snake bite. The author sums up as follows:

In snake- and centipede-bite, etc.: 1. Suck the part thoroughly. Don't be afraid. The poison is not nearly so dangerous in the mouth or stomach as in the wound. 2. Bandage tightly between the wound and the heart. This ligature should remain for some time, and then be loosened *little by little.* The sudden loosening of the bandage, by throwing all the poison into the circulation at once, may cost the patient his life. 3. As soon as possible give to an adult one tablespoonful of pulverized saltpetre, dissolved in a glass of water. To a child under ten years, one teaspoonful; intermediate ages, intermediate doses. Then scarifying the wound, if possible, apply wet saltpetre to the wound. One dose of the saltpetre internally is generally sufficient. If indicated, repeat the dose in six hours. If the first dose is vomited, repeat the dose in one, two, three, four or five hours, etc., as indicated. If necessary, stimulate the patient with whiskey, aromatic ammonia, or ammonia and sulphuric ether, equal parts, *per os,* or sulphuric ether, strychnine, glonoin, etc., hypodermatically.

Letters to the Editor.

REPEATED TAPPINGS FOR ASCITES.

397 Capital Avenue, Hartford, Conn.,
November 24, 1900.

To the Editor of the New York Medical Journal:

Sir: May I trespass upon your valuable space to report an interesting case? I have a patient, Mr. J. D., single, aged forty-three years, a machinist. His family history is good, and his personal history exemplary. He had never had any illnesses since childhood. He had never used alcohol or tobacco or had any specific disease.

Three years ago he consulted a physician on account of puffiness of the ankles, and was informed that he had Bright's disease, a urinary examination revealing the presence of albumin. Remedies and diet were prescribed, and repeated examinations showed the urine normal in amount. At times it contained albumin, but frequently there was no trace of it.

During the succeeding two years he was under treatment by reputable physicians, who informed him that there were no evidences of hepatic, cardiac, or splenic involvement, and only at intervals were there any indications of nephritic trouble. Œdema, anasarca, and ascites gradually supervened, and on February 22d of the present year, owing to cardiac dyspnœa and the leakage of the fluid from the legs, the patient consented to paracentesis abdominis, and twenty-two quarts of straw-colored fluid were removed. The liver and spleen could now be palpated, and were found much enlarged, and cardiac dilatation probably excited, but could not be mapped out.

Some relief was experienced for about two weeks, when the operation was repeated and has been repeated weekly until the present time. In all, thirty-six tappings have been made, from February 22d to November 16th, and the total quantity of fluid removed has been four hundred quarts, making an average of three pints secreted daily, which, with the quantity of urine passed daily, which is constantly measured and is never less than a quart, would make five pints, with no estimate of the water passing off in the fæces, invisible evaporation from the body, etc., under the influence of salines, diaphoretics, and diuretics.

The patient drinks but sparingly of fluids and takes but little food, owing to distressing gastric disturbance. There is no icteroid condition present, and his fæces are of normal color and consistency.

Physiologists inform us that about sixty per cent. of our solid food is water, and milk contains eighty-eight per cent., without the proverbial percentage added by the dealer; but, even so, the quantity of water excreted in this case is greater than the quantity ingested, and there is no evidence of emaciation.

My patient wishes to know where all the water comes from. Will someone please tell him, and also suggest a diagnosis and treatment? Is there chronic parenchymatous nephritis, portal cirrhosis, enlarged spleen, dilatation of the heart, or chronic traumatic peritonitis as a result of the tappings? M. H. Gill, M. D.

⁂ If our memory serves us, Sir Thomas Watson, in his *Lectures on the Practice of Physic,* a book in which medical students delighted thirty or forty years ago, tells of a woman who was tapped an enormous number of times "without once repining," as the epitaph testified. We do not remember the number of tappings, but our impression is that it was much larger than in our correspondent's case.

It seems to us that the conclusion in the case here described, that the man is losing more water than he is taking into his system, should be reconsidered.

Miscellany.

Hospital Buildings and Endowments.—The new German Hospital at Buffalo, N. Y., was thrown open on November 25th for inspection by the public. The building is made according to the latest approved methods. It is fireproof, having a steel frame and walls of expanded metal. The walls and doors are of hardwood and are practically the only wood in the building. The rooms are large, well lighted and supplied with the latest ventilating apparatus known. Hot water is used for heating. In all there will be accommodations for sixty or seventy patients. The hospital will be ready to receive patients about January 1st.——The new Wesley Hospital, now in course of erection at Chicago, has received a donation of $25,000 from Thomas Kent, a retired merchant of that city. Physicians who are interested in the hospital have raised a fund of $30,000 for the building fund. The cost of the institution is to be about $250,000, of which $185,000 has been subscribed.——The remodelled Vincent Memorial Hospital at Boston was thrown open for inspection on November 22d. A new operating room has been added, with an immense skylight, and every modern improvement, including a monolith floor and a steel instrument cabinet with glass shelves. The Vincent Club, composed of young society girls, furnished an entire ward. The hospital is for girls and women.——The new building of the New York Hospital, now ready for occupancy, has been erected to accommodate private patients and thus lessen the crowding in other parts of the institution. The building is in the rear of the main one, and has a height of eleven stories. It contains forty rooms, with accommodations for sixty patients. It will also furnish quarters for the resident staff.——A new hospital for incurables is to be built at Albany, N. Y., and the officers of the institution have sent out an appeal for funds. Contributions have been received from various sources amounting to $3,563.20.——A call for funds has been sent out by a committee of well-known charitable women of New York City to help erect a sanitarium in the Adirondacks for working girls, poor young married women and children suffering from incipient tuberculosis. The institution will be non-sectarian and will be under the direction of a board of well-known New York and Albany physicians.——The Camden City Medical Society passed resolutions early this month endorsing the action of the board of health in its efforts to procure a hospital for the city. The council has been asked to issue bonds to the amount of $18,000 for the purchase of ground and erection of the building. The members of the society have pledged their services to the hospital gratis in case of an epidemic of contagious disease.——The will of Charles M. Rudolph, of St. Louis, bequeaths to St. Luke's Hospital, of that city, $6,000. The interest on $1,000 of this is to be used for purchasing medicines for indigent patients, the other $5,000 to be used to establish a bed for indigent patients, irrespective of religion. To the Medical Fund Society of the St. Louis Medical College $1,000 is left for the purchase of medicine for indigent sick.——The will of the late R. G. Dun, of New York City, leaves $5,000 each to the Presbyterian Hospital, St. Luke's Hospital, Mount Sinai Hospital and the New York Institution for the Instruction of Deaf and Dumb.——The Sisters of the Poor of St. Francis, who conduct the St. Francis Hospital at No. 609 Fifth Street, New York City, have purchased thirty-two lots on the east side of Brook Avenue, from 142d Street to 143d Street, comprising eight lots on the avenue and twelve on each street. It is the intention of the Sisters to have a new hospital erected on the ground.——The will of James Affleck, of Yonkers, N. Y., bequeaths $1,000 to the Yonkers Homœopathic and Maternity Hospital.

Sold Worthless Diplomas.—James Armstrong, Thomas Armstrong and John H. Randall, of Chicago, officials of the Metropolitan Medical College, charged with using the United States mails to carry on a scheme to defraud by selling worthless diplomas, have been indicted by the federal grand jury. The operations of the men are said to have been extensive, the victims being scattered all over the United States.

In the United States District Court at Chicago, on December 5th, at the trial of the defendants, one Joe De Barthe gave evidence showing that he had sold a number of diplomas for sums varying from $25 to $150, while on a lecturing tour, as the agent of the defendants, who ran the Chicago diploma mill, to which reference has several times been made in our columns, known at one time as the "Independent Medical College of Chicago." De Barthe formerly posed as attorney and lecturer for the college.

The "Color Line."—A bill has passed the New York State Legislature which taxes colored imitation butter ten cents per pound. Isn't this drawing the "color line" rather far?

Traumatic Abscess of the Orbit.—At a meeting of the Section in Ophthalmology of the College of Physicians of Philadelphia, held on November 20th, the acting chairman, Dr. S. D. Risley, showed a boy who had had an abscess of the orbit which had proved to be associated with an opening into the ethmoidal cells, thus furnishing another illustration of the fact that suppurative disease of the orbit is usually associated with disease of one or more of the continguous sinuses. The patient applied for treatment at the Wills Eye Hospital two days after a blow upon the nasal aspect of the upper eyelid by a piece of flying metal. The upper lip was œdematous, the conjunctiva was chemotic, there was marked exophthalmia, and the globe was almost fixed, only slight rotation inward remaining. Under cold compresses the pain promptly ceased, and the œdema of the lids and the exophthalmia disappeared, leaving only a point of tenderness at the upper and inner angle of the orbit. On the fifth day fluctuation was present, and a deep incision into the orbit was followed by a profuse discharge of pus. A probe passed without resistance deep into the orbit, showing a large area of denuded bone. The cavity was injected with peroxide of hydrogen solution and subsequently cleansed twice daily, with saturated solution of boric acid. The solutions passed freely into the nostril. Suppuration ceased after the first treatment, and the wound healed without reaction or further suppuration. Mobility of the ball at the end of two weeks was completely restored and no tenderness remained. Dr. Risley found it difficult to explain the presence of the denuded bone, the opening into the ethmoidal cells, and the orbital suppuration following so speedily after the slight injury the boy had received. There was no discoverable evidence in the nose of the ethmoidal disease having existed prior to the accident.

The Röntgen Rays in the Detection of Intra-ocular Foreign Bodies.—At the same meeting Dr. G. E. de Schweinitz described two cases in which metallic bodies embedded in the eye had been localized with the Röntgen rays according to Sweet's method. In the one case the body was firmly embedded in a mass of cicatricial tissue behind the ciliary body, where it had been for ten months, and, although the magnet came in contact with the fragment, it could not be moved. The eye was therefore enucleated, as sympathetic irritation had already set in. In the second case the foreign body was of unusual size, weighing 27 centigrammes, and was easily removed about twenty-four hours after the accident. The collapsed eyeball was filled with physiological salt solution and the wound closed with catgut sutures, and there was uninterrupted recovery; that is to say, the eyeball was saved, although, of course, the vision was greatly depreciated, there being only light perception, chiefly upon the nasal side of the field. He dwelt upon the uselessness of attempting to extract foreign bodies with the magnet if they had been long embedded, on account of the firm adhesions which necessarily were formed, and urged the importance of prompt surgical intervention after accidents of this character, stating his belief that it was imperative that eyes in which there was the least suspicion of a foreign body should be submitted to expert examination, if necessary aided by the x-rays, so that no time should be lost in localizing and extracting the foreign substance.

The Ætiological Relationship of Epidemic Influenza to Chronic Glaucoma.—Dr. de Schweinitz referred to the observation made by various authors that there was an increased frequency of the occurrence of glaucoma during seasons in which influenza had manifested itself with unusual severity, and related a case of bilateral retrobulbar neuritis caused by this disease in which he had observed the gradual formation of a cup in the optic nerve closely simulating that seen in so-called chronic, or simple, glaucoma. He suggested, therefore, that, as a number of observations had shown that optic neuritis preceded plus tension and conduced to cupping of the disc, the retrobulbar neuritis of influenza might play this rôle and account for the ætiological relationship that had been described. Dr. Fenton referred to a patient he had seen six days after the beginning of an attack diagnosticated by the attending physician as influenza, and found one eye of stony hardness, with cloudiness of the media, while the other eye exhibited chronic glaucoma. He believed that the superintoxication of influenza induced glaucoma in eyes predisposed to the disease. Dr. Risley believed that granular changes in the macular region were often present in influenza, although he had never seen glaucoma associated with the affection.

Hæmorrhage from the Conjunctiva in an Infant.—At the same meeting Dr. H. F. Hansell reported the case of a child that at the time of its birth had weighed three pounds and a half and was exceedingly puny and frail. For several days following its birth there was a slight purulent discharge from the conjunctiva of both lids that disappeared under treatment by irrigation and mild antiseptics. Two weeks after its birth bleeding from the conjunctiva began and continued for five days. The blood did not proceed from any one point, but oozed from the entire conjunctival surface of the left upper lid without cessation day or night. There was no anatomical change in the conjunctiva like that reported by Stoewer and others. The blood count showed 5,400,000 red and 5,600 white corpuscles; the percentage of hæmoglobin could not be determined. The infant was put into an incubator and the temperature maintained at 99° F.; its own temperature varied from 97° to 104.4° F. Careful feeding and stimulants failed to kindle the feeble spark of life, and after existing for five weeks it died. The speaker thought that death was due to the premature birth, marasmus, and undeveloped bodily organs, and not to the loss of blood from the conjunctiva. Dr. de Schweinitz recalled two cases, one of which he had previously reported. The other case occurred in a colored child, two weeks old, the hæmorrhage coming from an isolated point on the bulbar conjunctiva of the upper lid. After the usual styptics had failed to arrest the hæmorrhage, the bleeding point was picked up with a hæmostatic forceps. There was recurrence later, but recovery ultimately ensued. A few ecchymotic spots were found upon the body. In reply to a question, Dr. Hansell stated that it was uncommon to find the hæmorrhage from isolated points, unless there was an organic lesion of the conjunctiva, but rather there was a leakage from the entire palpebral surfaces.

Sir Michael Foster, F. R. S., on Experimentation on Animals.—Though, perhaps, rather late, it is not too late to repeat the following trenchant remarks of Sir Michael Foster in an address to the students of the Denver College of Medicine, published in the *Colorado Medical Journal* for October. After recounting the difficulties which legislation had imposed upon the scientific research of the physiologist in England, he said:

"I suppose you don't experience the sort of thing here, but in the rest of the world we are stimulated by difficulties; and I think there can be no doubt that the fact we have to fight against difficulties in the progress of physiological inquiry occasioned by the Act has really stirred us up to more active and more earnest inquiry than if the Act had not passed; but if the question comes before you, don't you be too much influenced by the beneficial effects of difficulties. (Laughter.) Resist, as I have said to every one in America, resist interference with your inquiries. I heard the Lord Chief Justice of England, when this matter was being discussed in the House of Lords, I heard him say, 'You must remember, my lords, that this is essentially a penal act.' I, a professional physiologist, sat in the gallery of the House of Lords, and heard the highest legal authority state that the legislature were about to treat me as a felon. They were about to bring into action what he called a penal act. Don't you allow yourselves for a minute to get crippled by all these special certificates.

"Indeed, no legislation at all is necessary. I speak not for myself; I speak for all my brethren. We are not cruel. We never cause pain if we can possibly help it, and the whole progress of physiology is dependent upon the experiments upon living animals. The other people may say what they like, but if you read the whole story of physiology you will see that every step has been based upon an experiment on living animals. I have just come from delivering a course of lectures in San Francisco on the history of physiology. I always knew that our science was based upon experiments, but I never knew it as I know it now when I have had to read carefully the old authorities and trace out all their work. Every one who has made an advance has made it by experiment on living animals. And in the old time, for instance in the seventeenth century, in the '60's or '70's of the seventeenth century, just following Harvey, there was a man, Richard Lower, who did very great work on the circulation, on respiration and other parts of physiology, and so far as I can make out from reading his works he must in the quiet retreat of Oxford have performed just as many experiments, indeed, I believe on the whole he performed in the same time more experiments than Claude Bernard: and Harvey himself, in his great work on the heart, says not only once, not twice, but several times, that he came to the truth first of all by observing certain facts in the animals and then testing those facts by repeated experiments on living animals. And it is a duty of the whole medical profession to see that the physiologist is not hampered in his important inquiries by any misdirected legislation."

Decimal Prescribing Made Easy.—The *Dietetic and Hygienic Gazette* for November cites, on the authority of the American Association for the Advancement of Science, the following lines as all that is necessary for the physician to learn in order to prescribe in the metric system:

1,000 milligrammes make one gramme.

1,000 grammes or cubic centimetres made one kilogramme or litre.

65 milligrammes make one grain.

15½ grains make one gramme.

31 grammes make one ounce, Troy.

The German Bill to Regulate the Sale of Patent and Proprietary Medicines or Cures, which was introduced by Mr. German into the Ontario Legislature during its last session (*Dominion Medical Monthly,* November), contains some very excellent recommendations, many of which might be copied by other legislatures with advantage; among others, the following:

"11. No person shall advertise any medicine, in respect of which a license has been granted, by any advertisement—

"(1) Which consists in whole or in part of any surgical picture or representation;

"(2) Which is of a nature to suggest the means of committing any crime;

"(3) Which is offensive in its language or suggestion:

"(4) Which is calculated to hold out false hopes of the prevention, alleviation or cure of any disorder of the functions of the body;

"(5) Which is, having regard to the formula or prescription filed, fraudulent or misleading in its statement of the curative properties of the medicine."

The Treatment of Acute Pharyngitis.—*Pœdiatrics* for December 1st has some useful and practical editorial remarks upon this subject, premising that the term pharyngitis is taken to mean any non-diphtheritic inflammation of the pharynx proper, or of the uvula or tonsils. For therapeutic consideration these structures are one, the mucous membrane being histologically almost the same over the tract mentioned.

Says *Pœdiatrics:* "The treatment is local and general; locally the object is reduction of the swelling and congestion, relief of the pain, and prevention of complications (otitis media, abscess of the tonsil, suppurating cervical glands, pyæmia, etc.). General treatment should aim to sustain the strength of the patient and eliminate the toxines.

"In the local treatment the remedies that do harm are numerous. It is safe to say that in the early stages of acute pharyngitis any astringent, however mild, is contraindicated. The physician should not content himself with the statements of many text-books as to the tincture of chloride of iron. Some of the most formidable cases of acute pharyngitis the writer ever saw were due to the thoughtless prescription of ferric chloride. One young man, recently under observation, had great exterior swelling of the neck, enormous œdema, and congestion of the entire oropharynx, intense pain, high fever, complete anorexia, a generally alarming condition. A physician, he said, had given him 'a bottle' some days before, which he had continued to use according to directions till he found he was growing worse. The 'bottle' was found to contain almost pure tincture of iron. This drug is a 'favorite prescription' of the pharmacist over the counter, and he usually administers it with little dilution. The writer saw an unfortunate negro girl on the East Side not long ago who had gotten a large abscess of the tonsil from continuing to take a strong preparation of ferric chloride. Some one of her own color, claiming to be a doctor, had given her what looked to be the pure tincture, a teaspoonful every three hours. If the physician still clings to his old iron habit, let him try tincture of the chloride on his own throat when it is acutely sore, and see how it feels. In the long run, particularly with patients one has not seen before, a safe rule is, use no astringent during the first five days. Should the tissues then seem boggy and the circulation sluggish, apply twenty-per-cent. silver nitrate on a swab, wash it off with salt solution, and see what the effect is later on. In no early case, at all events, should an astringent ever be put into the hands of the patient with directions to use 'ever so many hours.'

"The early local treatment should be simply detergent and antiseptic. In babies, with whom pharyngitis is not so rare as some text-books state, a weak solution of sodium bicarbonate and salt may be given to drink rather freely, with a purge and proper attention to diet. In children old enough to gargle properly, salt, soda, and boric-acid gargles do pretty well; but with these, as with older patients, the best way of cleansing the pharynx is the douche. Let the patient hang his head over the edge of the bed or of a table and receive the warm solution into his wide-open mouth in a gentle stream from a fountain syringe. This should be done from two to eight times a day, or oftener, according to the conditions. The most threatening cases will often resolve under this treatment with astonishing speed. The outflow from the mouth may be caught in a pus-basin or any convenient vessel; it should be afterward disinfected with chloride of lime.

"The general treatment should be sustaining. 'Specifics' are worthless. In streptococcus and staphylococcus throats the general condition is one of simple sepsis, nothing more or less. The infection is often severe, the temperature often running to 105° and 106° F. It is accompanied by irregular chills and sweats, and, often disappearing for twenty to twenty-four hours, may reappear and run rather high for a day or so longer. This need not occasion special alarm if the other organs are known to be in good condition. Acute pharyngitis is often capable of enlarging the spleen and causing albuminuria—the former especially in children. The possible renal irritation should be borne in mind, and no food allowed that may overburden the kidneys. A milk diet with suitable stimulation is usually indicated. For the fever, cold baths, the cold pack, or cold effusions may be employed, not so much for their effect in reducing temperature, as for their stimulating influence on the nervous system. As to prophylaxis, all cases of acute pharyngitis should be considered potentially contagious and isolated accordingly. This rule becomes the more imperative when we remember that acute angina is the symptomatic forerunner of many of the acute infectious diseases."

Important Recommendations by the Illinois State Board of Health.—The State board of health of Illinois will make in its forthcoming biennial report some important recommendations. Among them will be that a State sanitarium for consumptives be established after the plan successfully followed in other States. The State board of charities will also be joined in its recommendation for provision for the care of epileptics. Additional powers for township boards of health will also be asked. Under the present law these boards, which consist of a supervisor, assessor, and town clerk, have no power to punish those who disobey the rules and regulations tending to check the spread of contagious diseases. The board will ask that a penalty be provided. The board will further recommend that some provision be made for boards of health in counties not under township organization.

The Compulsory Registration of Tuberculosis.—The Philadelphia County Medical Society at a recent meeting adopted a resolution recommending the compulsory registration of tuberculosis in the class of transmissible diseases. A paper on the subject was read by Dr. Herrman M. Biggs, of New York, in which he advocated a sanitary supervision that should comprise compulsory notification, hospital equipment for the treatment of the disease, the disinfection of premises vacated by death or the removal of patients, and the power of compulsory removal and retention of patients in a hospital when necessary.

The Charter Revision Commissioners Suggest Changes in Health Board.—The Charter Revision Commission of New York City has forwarded its report to Governor Roosevelt. Among the changes recommended in connection with the board of health is one to the effect that the mayor should not be prohibited, in proper cases, from appointing a physician to the important post of president of that body. The commission recommends that the board be composed of one commissioner, to be selected by the mayor without restriction upon his choice, and of the police commissioner and the health officer of the port. The powers and duties of the health department are not materially changed in the recommendations except by the abolition of the present power of assignment of claims for expenses and penalties.

Medical Inspectors for Schools.—Denver is seriously considering the advisability of appointing medical inspectors for its public schools, following the example of Chicago, where fifty inspectors are employed for eight months in the year at a salary of $50 a month each. The last official report showed that among 2,521 ailing children examined in Chicago, 184 cases of contagious diseases were found. In twenty-five school days 9,770 children were found ailing, 694 from scarlet fever, diphtheria, etc., in an incipient or well-developed form. In New York there is daily inspection of the schools, each inspector covering two schools for $30 a month, ten months in the year. In Philadelphia 300 physicians are selected without pay, and there is daily examination. The system has just been rejected by the board of school directors of New Orleans.

Association of American Anatomists.—The fourteenth session of the American Association of Anatomists will be held in Baltimore, Md., on December 27th and 28th in conjunction with the American Society of Naturalists and affiliated societies. The following papers are promised: Dr. Charles R. Bardeen, Baltimore, Demonstration of a New Freezing Mixture; also, Advantages and Limits of the Method of Reconstruction with Wax Plates in Anatomical and Embryological Investigations, and Methods of Statistical Study in the Dissecting Room, with Special Reference to the Peripheral Nervous System. Dr. Max Brödel, Baltimore, Intrinsic Blood-vessels of the Kidney and their Significance in Nephrectomy. Dr. E. R. Corson, Savannah, Exhibition of a Series of Skiagraphs Showing all the Normal Human Membral Epiphyses of the Thirteenth Year. Dr. A. Hrdlicka, New York City, Typical Forms of Shaft of Long Bones other than the Tibia, illustrated by specimens; also, Note on Bicipital, Bicaudal and Perforated Ribs in Man. Dr. F. P. Mall, Baltimore, Development of the Human Diaphragm; also, The Origin of the Lymphatics of the Liver. Mr. Edward A. Spitzka, New York City, The Mesial Relations of the Inflected Fissure, Observations on 100 Brains; also, A Contribution to the Question of Fissural Integrality of the Paroccipital, Observations on 100 Brains; also, Preliminary Report, with Projection Drawings Illustrating the Topography of the Paraceles in their Relations to the Surface of the Cerebrum and the Cranium; also, The Brains of Two Distinguished Physicians, Father and Son, a Comparative Study of their Fissures and Gyres. Dr. B. B. Stroud, Cornell University, Apparatus for Demonstrating the Circulation.

The Western Surgical and Gynæcological Association.—The next annual meeting of the Western Surgical and Gynæcological Association will be held at Minneapolis, Minn., on December 27th and 28th. During the meeting the following papers will be read: Anæsthesia through Cocainization of the Spinal Cord: Its Use and Limitation, by Dr. J. B. Murphy, of Chicago; Adenoma of the Tongue, by Dr. J. E. Summers, Jr., of Omaha, Neb.; Removal of the Superior Maxilla, by Dr. Alexander H. Ferguson, of Chicago; Two Rare Tumors: (1) A Calcareous Uterine Fibroma, and (2) a Fibro-myoma of the Urethra and Anterior Vagina, by Dr. H. G. Wetherill, of Denver, Colo.; Post-operative Fistula, by Dr. J. R. Hollowbush, of Rock Island, Ill.; Insanity in Women Associated with Pelvic Disease, by Dr. W. O. Henry, of Omaha, Neb.; Demonstration of Gynæcological Operations by Means of Casts, by Dr. J. Clarence Webster, of Chicago; The Choice of Operation for Stone in the Bladder, by Dr. B. B. Davis, of Omaha, Neb.; Traumatic Injuries of the Ureter, by Dr. J. W. Macdonald, of Minneapolis, Minn.; Hypospadias, by Dr. C. H. Mayo, of Rochester, Minn.; The Operative Management of Retroperitoneal Abscess, by Dr. G. G. Cottam, of Rock Rapids, Iowa; Pelvic Injuries, by Dr. R. Harvey Reed, of Rock Springs, Wyo.; The Pathology of Fractures, by Dr. Lewis Schooler, of Des Moines, Iowa; Operative Management of Tuberculous Hip-joint Disease (A Critique), by Dr. A. F. Jonas, of Omaha, Neb.; A Further Report of a Case of Cerebral Cyst, by Dr. Van Buren Knott, of Sioux City, Iowa; Anatomical and Surgical Observations on Appendiceal Abscess, by Dr. A. C. Bernays, of St. Louis, Mo.; Topical Applications in Gynæcological Practice: Their Use and Abuse, by Dr. J. W. Andrews, of Mankato, Minn.; Two Cases of Appendicitis of Unusual Course, by Dr. Herman E. Pearse, of Kansas City, Mo.; A Consideration of the Different Operative Procedures in the Treatment of Retrodisplacements of the Uterus, by Dr. O. B. Campbell, of St. Joseph, Mo. There will be a symposium on fractures, with remarks by Dr. J. P. Lord, of Omaha, Neb.; Some Observations on Compound Fractures, by Dr. D. S. Fairchild, of Clinton, Iowa; Ambulatory Treatment of Fractures, by Dr. F. Rustin, of Omaha, Neb.; The Treatment of Skull Fractures, by Dr. J. E. Dunn, of Minneapolis, Minn.; What Material Improvement in the Treatment of Fractures has Resulted from the Use of the X-Ray? by Dr. C. E. Ruth, of Keokuk, Iowa. At a symposium on the surgical infections of the kidneys and the cystonephroses, remarks will be made on ætiology and pathology by Dr. M. L. Harris, of Chicago; symptomatology and diagnosis, by Dr. W. H. Allport, of Chicago; and on treatment, by Dr. L. L. McArthur, of Chicago. At a symposium on surgical tuberculosis remarks will be made on tuberculosis of fascia by J. Clark Stewart, of Minneapolis, Minn.; tuberculosis of tubes, ovaries and peritonæum, by Dr. Rollin E. Cutts, of Minneapolis, Minn.; tuberculosis of bones and joints, by Dr. Knute Hoegh, of Minneapolis, Minn.; and on treatment of tuberculosis of bones and joints, by Dr. James E. Moore, of Minneapolis, Minn.

THE NEW YORK MEDICAL JOURNAL, December 22, 1900.

Original Communications.

THE TREATMENT OF SUPRA-CONDYLOID FRACTURE OF THE HUMERUS.*

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It is not my purpose on the present occasion to give you an essay on the subject of fractures, but to report a few cases of fractured elbows to enforce my views on the treatment of fractures of bones in general, as set forth somewhat at length in a paper read by me before the Medical Society of the District of Columbia in November, 1898, and published in the *Medical Register* for December, 1898. No stronger argument could be used to illustrate the reasonableness of the treatment that is advocated than the report of these cases which show absolutely perfect functional results. These results will surely convince every one of the great advance that has been made in surgery, when one considers the results obtained in the treatment of this class of fractures by the older methods. The older writers on this subject always advised that a fractured elbow should be put up in a right-angled splint, expecting the result to be an ankylosed joint; any other result would be a surprise. When one was fortunate enough to obtain a movable joint in one of these cases, it was accompanied with a very marked deformity. Some advised that no splint be used so that passive motion would be constant, hoping that a movable joint would be the result, regardless of the amount of deformity. Dr. Agnew says that complete reduction is rarely effected, and that ankylosis of the joint may be looked for, not only from the involvement of the joint, but from inflammatory deposit about the origin of the pronator and flexor muscles of the forearm. He also advises the use of the right-angled splint, that the arm may be of greater service in case the result is an ankylosed joint.

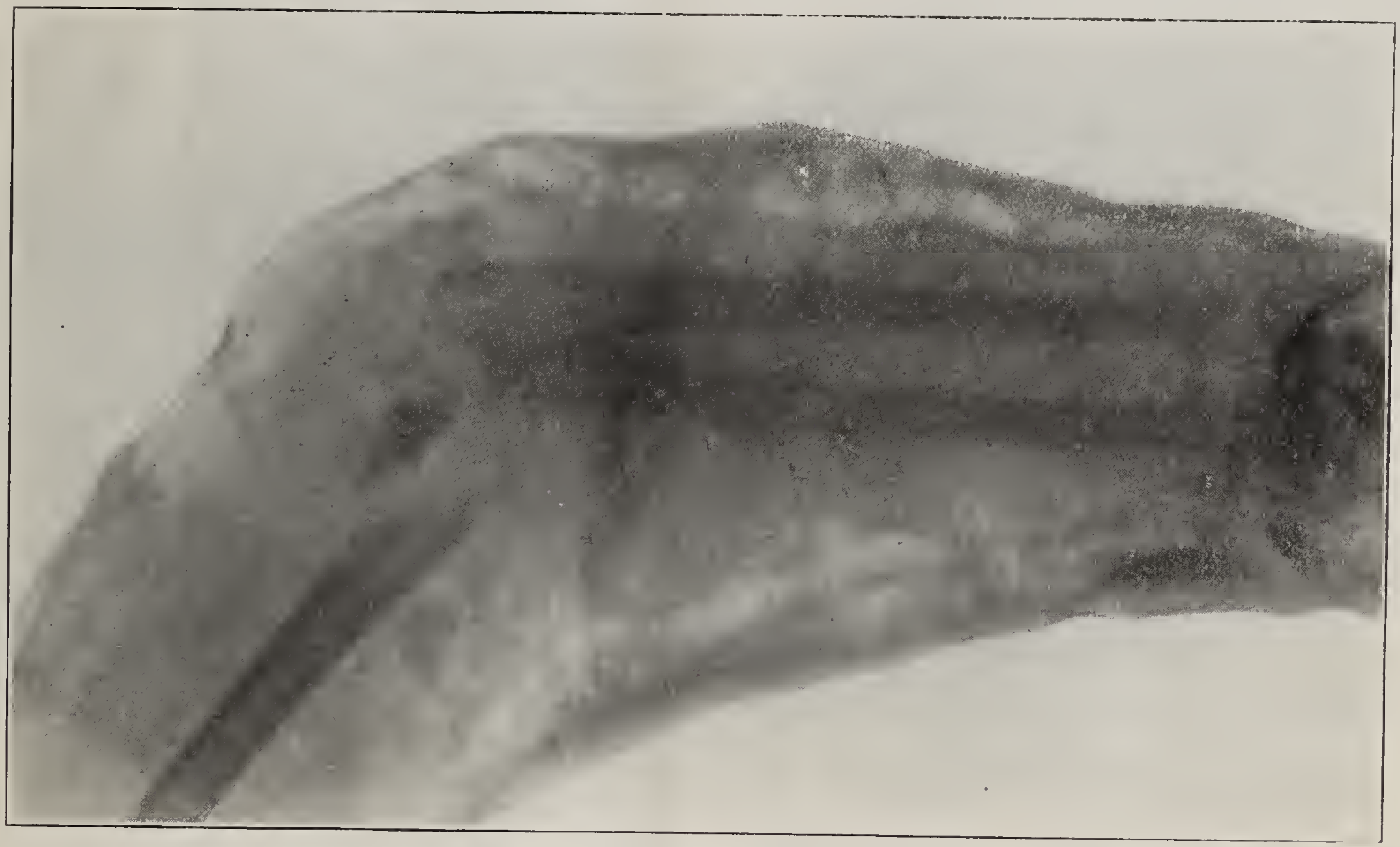

Fig. 1.—*Case I.*—Photographed through plaster of Paris after the fracture was supposed to be reduced.

The most important point in the treatment of these cases is an accurate knowledge of the position of the fragments of the broken bone. For obtaining this information, we have in the X-ray all that can be desired, and its aid should be had in every case where the least doubt exists. When the diagnosis is made, the treatment is perfectly plain. The broken ends should be brought into the best possible approximation and held there until union is firm; when it is impossible to obtain a perfect approximation, an incision should be made exposing the fragments to view, which, when put in the desired relation, the one to the other, should be secured there by some extraneous means. There are many conditions that may oppose this end, such as intervening tissue and muscular action, especially when the line of fracture is oblique, as in the illustration here shown. My preference is to drill a hole through the fragments and then to suture them in position with kangaroo tendon. When the fracture is oblique, I have found the tendency for the fragments to override each other so great that suturing did not do so well. In these cases I have left the drill in, which is a perfect method of holding the fragments *in situ* (see Fig. 4). I use a drill that is long enough to project through the dressings, including the plaster of Paris. The operation being done under the strictest antiseptic conditions, the wound is closed and the drill is removed at the end of the second week; the little wound closes almost at once.

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*Read before the Medical Society of Virginia, thirty-first annual session, held at Charlottesville, Va., October 23, 24, and 25, 1900.

My experience and observation have convinced me that this open method of treating fractures is the correct one, and that the sooner it is more generally adopted, the fewer stiff and deformed elbows we shall meet with. The operative method requires but little, if any, more time than is required in manipulating the bones into position, and with manipulation you are never certain that they are in perfect position or that they are going to remain there, whereas when you have cut down on them and secured them in position, there is a very comfortable feeling that all is going to be well. The same amount of anæsthesia that is needed for manipulations will suffice for operative measures, hence the operation under antiseptic precautions adds nothing to the risk of the patient and insures better results. Of course, one wishes to give his patient every chance that is in his favor to get the best functional result. It has been abundantly proved to me that that is in the operative method. As has been said in my former paper already referred to, Why should one hesitate a moment in these days of antiseptic surgery to cut down on the fractured bones, to satisfy himself with absolute certainty as to the relative position of the broken bones? In other words, all simple fractures, with displacements that cannot be easily reduced so as to obtain a perfect approximation, should be converted into compound fractures with the knife under the best antiseptic precaution. In doing this, nothing is added to the severity of the case; in fact, just the opposite is true, for by so doing, blood clot and effusion are removed, which puts the tissue in better condition to hasten a cure. This method gives the surgeon a perfectly clear field of operation and enables him to put the fragments in the best possible position. If this were done in all cases of fractures involving elbow joints, stiff elbows would be a thing of the past.

I do not intend to say that it is absolutely necessary to adopt this method in every case of fracture about the elbow, for there are cases when the displacement is so slight as not to prevent a perfect result, and there are even cases where there is no displacement. These cases do not need such a radical method of treatment, but when the fractures are oblique or transverse with much displacement, the patient is not given the best chance unless such procedure is instituted.

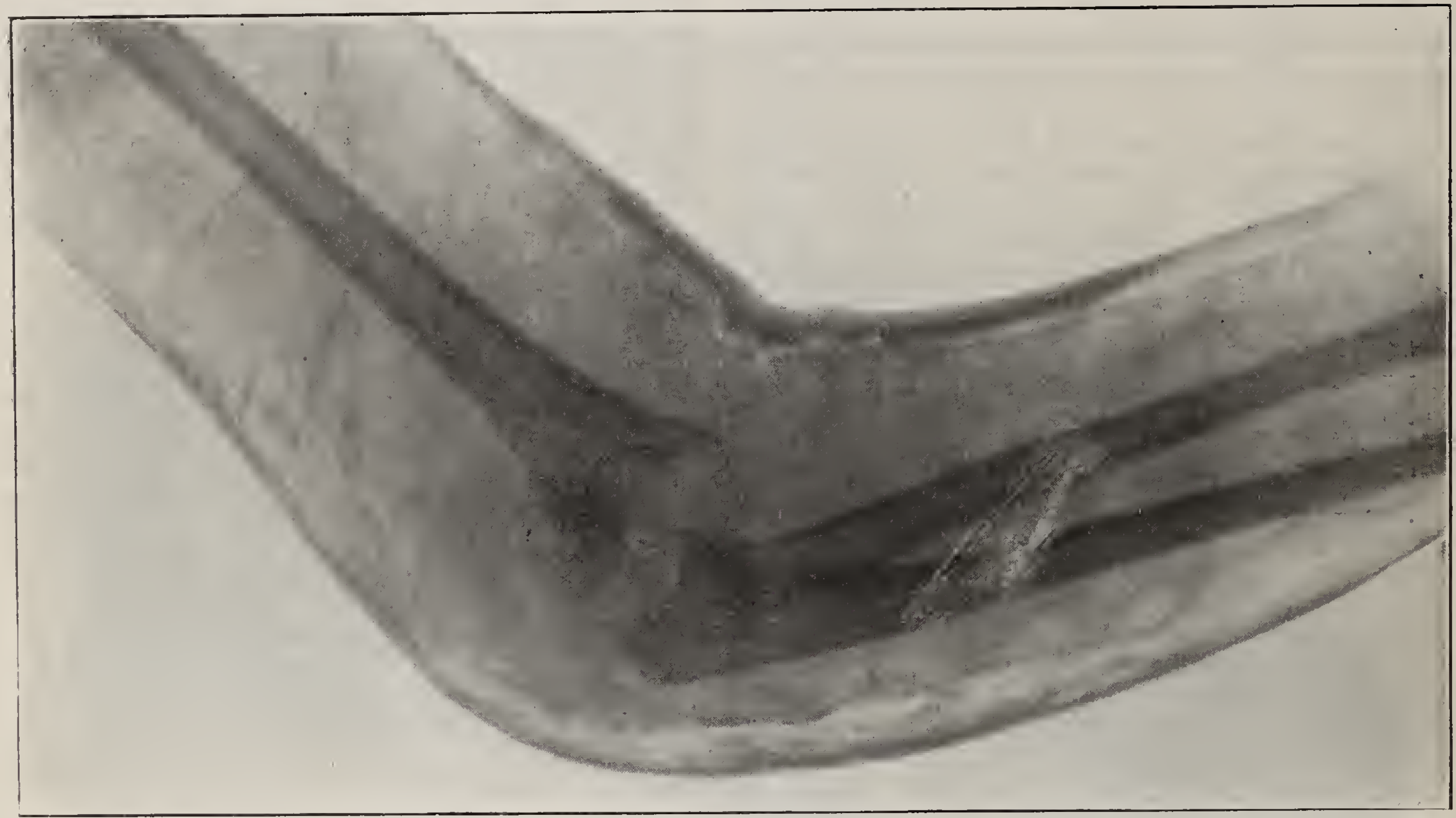

FIG. 2.—*Case II.*—Showing the fragments of the condyles displaced laterally and behind end of the humerus. Photographed through plaster of Paris.

CASE I.—Child, three and a half years old. On May 1, 1899, the child fell from a chair to the floor, landing with the weight of its body on its elbow, producing an oblique fracture of the humerus through the condyles. On the following day, under an anæsthetic, the usual manipulations were used to reduce the fracture. It was thought to be reduced and was therefore put up in plaster of Paris. Several days later the X-ray showed the fragment of bone still out of position (Fig. 1), hence it was decided to operate. An incision about two inches long was made on the posterior aspect of the arm over the seat of the fracture; the fragment of bone was easily exposed and secured in the desired position by means of a kangaroo tendon suture; the wound was closed with catgut suture and the arm put up in plaster of Paris at a little beyond a right angle. One week later a fenestra was cut through the plaster for inspection of the wound; slight superficial suppuration had occurred at the lower end of the incision, which healed kindly in about a week. Two weeks and a half after the operation the plaster was removed and very gentle passive motion used daily. Within about five weeks, very good voluntary motion was obtained. I have recently examined this child and have found the motion of the joint to be absolutely perfect in every direction.

Case II.—Aged seven years. On December 19, 1899, a child fell from the end of a sofa and fractured the lower end of the humerus obliquely, through the condyles. I saw this case in consultation within a few hours after the accident. The displacement of the fragments was very great. The condyles were backward and at a right angle to the shaft of the humerus. The spur end of the humerus had been forced through the muscles and fascia, only skin preventing it from being a compound fracture. An anæsthetic was at once administered and the fractured bones reduced to the best position in which I could get them (see Fig. 2), and the limb was put up in plaster of Paris. Two days later, the X-ray picture was taken and did not satisfy me that the bones were in the best position for a good result. On December 23d, through an incision on the posterior aspect over the seat of fracture, I put the bones in position and held them there by means of a kangaroo tendon suture; the elbow was then put up in plaster of Paris at an acute angle, after closing the wound for primary union. The plaster was removed at the end of three weeks and passive motion was begun. The final result in this case has been perfectly satisfactory.

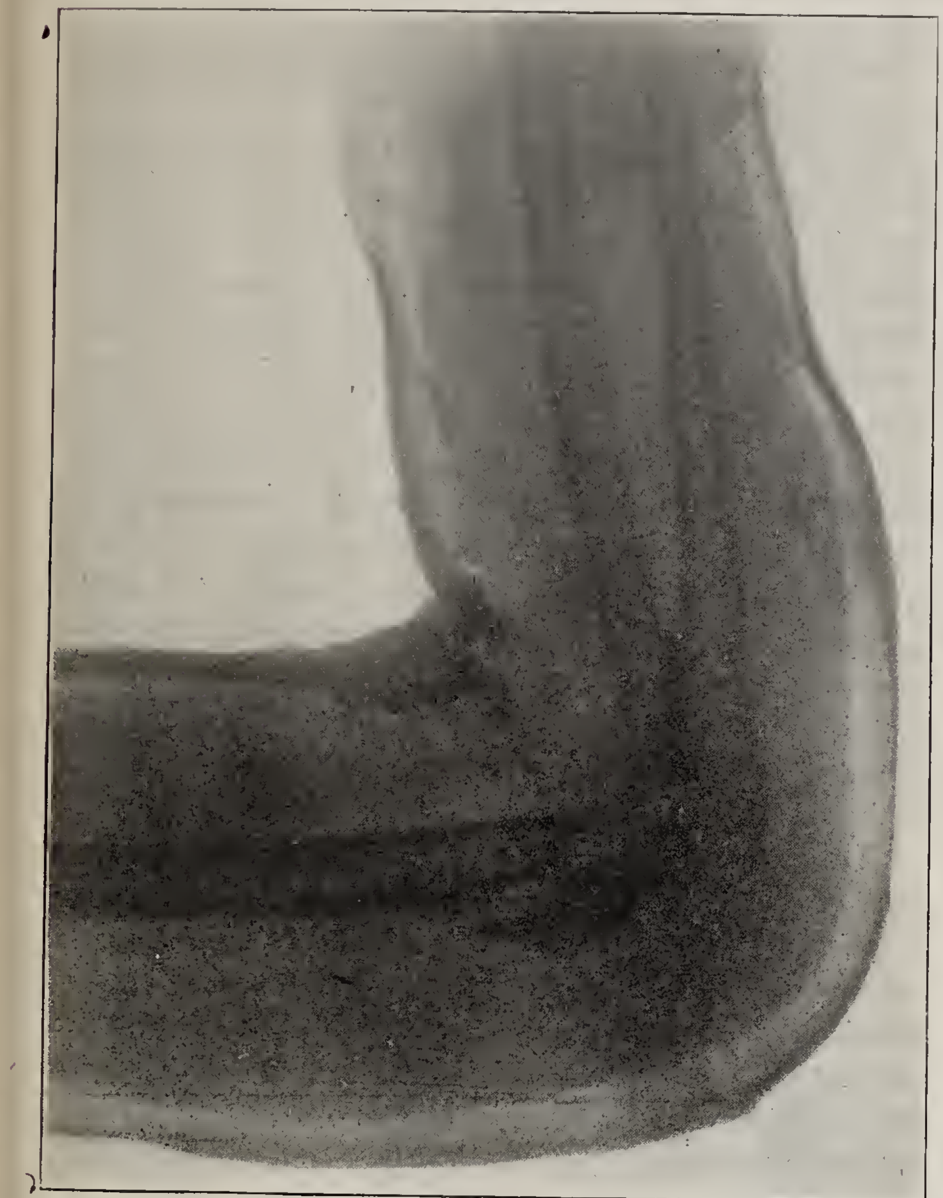

Fig. 3.—*Case III.*—Photograph taken through the plaster of Paris splint after the compound fracture was reduced.

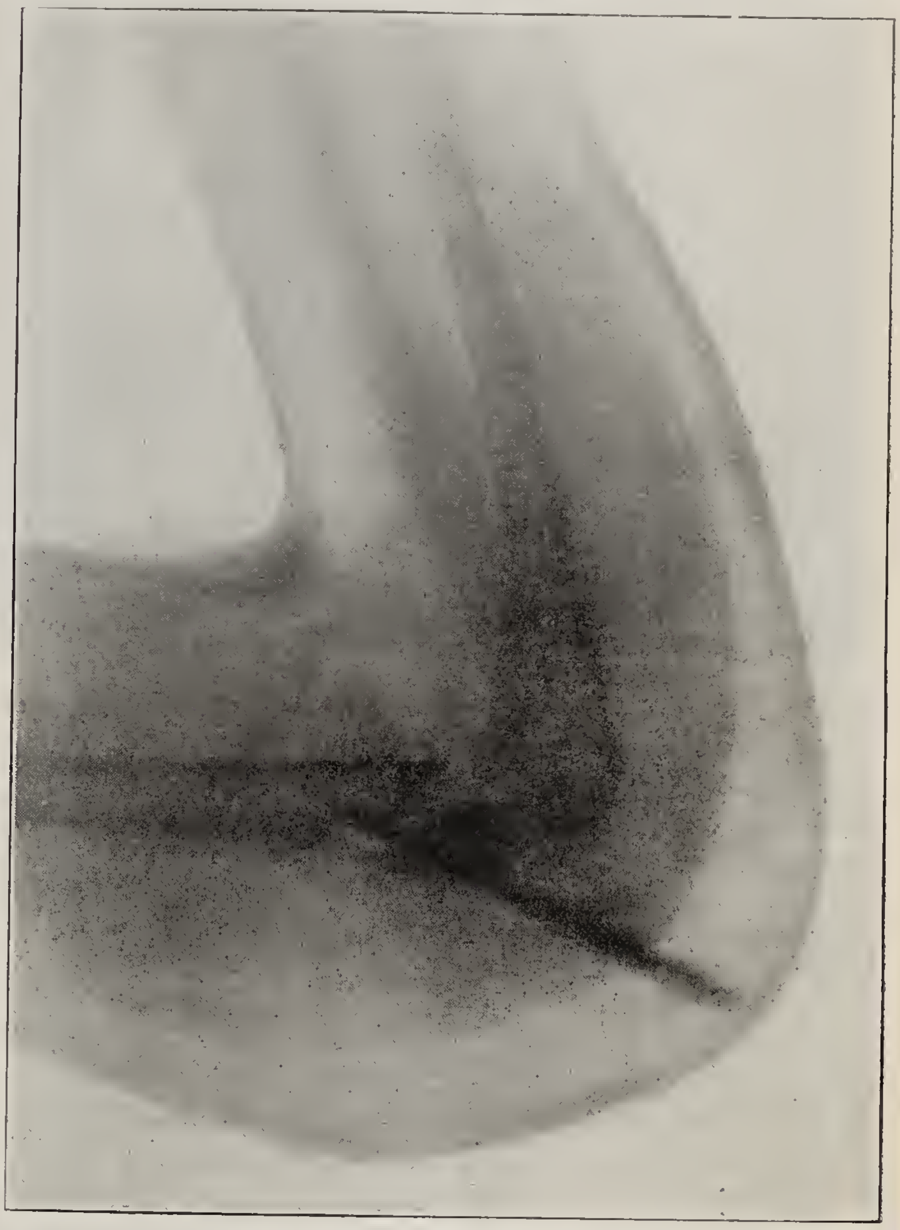

Fig. 4.—*Case III.*—Photograph taken two weeks after operation, showing drill in position, fragments forced apart by callus.

Case III.—Child, aged six years. This child fell through an open sewer trap for a distance of about five feet on a cement surface, producing a compound fracture obliquely through the condyles, as beautifully illustrated by Fig. 3. Within a few hours after the accident, I reduced the fracture under chloroform and put it up in plaster of Paris at a right angle. In this case I felt almost certain that I had got the bones in perfect apposition. Three days later, so soon as the child could be well taken to the X-ray laboratory, the photograph was taken, which shows either that the fragments had slipped, or that I was mistaken in thinking that I had put them in apposition. Hence it was decided to operate, which was done five days after the accident. The fracture in this case was so very oblique that I was afraid to trust sutures to hold it in position, so I left the drill in the bones (see Fig. 4), closing the wound for primary union, which was absolutely perfect in every respect. Two weeks after the operation I removed the drill by cutting away the plaster around it. In such a procedure the drill can be removed so easily that it produces no pain to the patient. Passive motion was begun in three weeks, and the final result has been all that could be desired.

A CASE OF SUPERIMPOSED UVULA.*

By THOMAS AMORY DEBLOIS, M. D.,

BOSTON.

The case I have to report, of which I have no written copy, is one of superimposed secondary uvula, the two halves hanging one in front of the other. Of course, we see a great many where the halves hang side by side, but my case is different.

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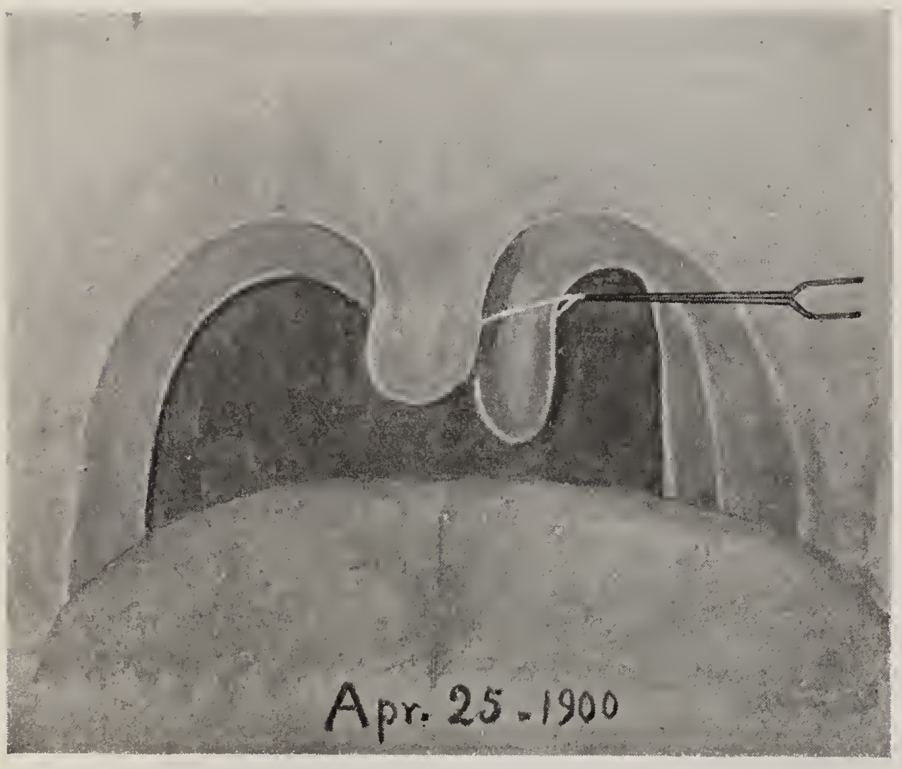
*Read before the American Larnygological Association at its twenty-second annual congress.

The patient, a young man, had a great deal of irritation of the throat, and I suggested that he might have an elongation of the uvula. On looking into his mouth, I found that the anterior pillar of the fauces was all right, and there seemed to be a perfectly formed uvula, but from the posterior pillar there hung a second uvula almost masked by the first. I slipped a galvano-cautery loop over the posterior uvula and, drawing it tight, cut it off in about a second. As soon as I did so, the front uvula fell right back into the median line. There was just a little white eschar on the posterior pillar, which on that side had an extra fold, as you observe, and you could not tell that any uvula had been removed, because it looked perfectly normal and natural. The uvula removed was muscular in consistence, having the same appearance as any piece of uvula. It had the muscular fibres.



I never have seen anything of the kind before, and I do not think very many of you have seen a case like it. I thought it was worth showing.

THE COMBINATION OF A PLASTER-OF-PARIS JACKET WITH A BRACE TO CORRECT AND RETAIN CORRECTION OF THE KYPHOSIS OF POTT'S DISEASE OF THE SPINE.

By A. MACKENZIE FORBES, M. D., C. M.,

MONTREAL, CANADA,

MONTREAL DISPENSARY, MONTREAL; LATE INTERNE AT THE RUPTURED AND CRIPPLED HOSPITAL, NEW YORK.

THE report entitled On the Treatment of Pott's Disease after the Development of Deformity which was presented by Dr. Bradford at the Thirteenth International Medical Congress, Paris, 1900 (1), concludes with these words: "It may be said in conclusion that the correction or rectification of the curve in Pott's disease is to be considered in every case of active Pott's disease with a deformity.

"The employment of force should depend on the pathological conditions, and not on the extent of the curve * * * force should be used with great reserve."

"Improvement of the curve is to be considered in every case, and it is to be attempted wherever the spinal column can be made straighter without great force. * * *"

"The main dependence, however, for an ultimate success remains in the surgeon's careful, continued, and thorough, employment of retention appliances which hold the spine in the straightest possible position for a sufficient length of time for consolidation of the diseased bony structures."

"Success is to be won more by a careful attention to detail than by an operative attempt."

As Dr. Bradford's report is probably the most recent contribution to the literature on the subject of the treatment of Pott's disease after the development of the deformity, and as the concluding words of this article distinctly state that the "correction or rectification of the curve in Pott's disease is to be considered in every case of active Pott's disease with deformity," and, further, that *"the main dependence, however, for an ultimate success remains in the surgeon's careful, continued, and thorough, employment of retention appliances which hold the spine in the straightest possible position,"* it will, perhaps, not be out of place to describe a method that has been used by the writer in a series of cases for the correction or rectification of the curve in Pott's disease as an appliance which affords continued and thorough retention of the spine in the straightest possible position.

The patient is laid in the prone position on a perfectly flat surface, and, while in this position, a tracing is taken of the spinal column from the second dorsal to the first sacral vertebra. On this tracing is marked the position of the kyphosis, and that of the lower level of the posterior axillary wall when the arm is lying at the patient's side. With the curve of this tracing as a model, two strips of steel of the length of the tracing, and from about one-half to three-quarters of an inch in width, and varying in thickness with the weight and strength of the patient, are prepared to fit accurately the patient's back while lying in the before-mentioned position. (Fig. 1.)

The patient is now carefully examined with reference to what correction is desired at the first *séance,* and the two strips of steel, as above prepared, are acutely flexed from the vertebral column at the point of greatest kyphosis. (Fig. 2.) These strips are now used as the lateral bars of an apparatus similar to, and acting on, the same leverage principle as does the Taylor brace. A strong pelvic band of from six to twelve inches in length, with a width of one inch and a quarter, more or less, to suit the patient's size and weight, three narrow crossbars, the first three inches and a quarter long by half an inch in width, the second a little longer, and the third somewhat shorter, are prepared, and are employed by means of screws as the transverse bars of the appliance, and serve, when properly adjusted, to keep the lateral steels parallel, at a distance of one inch and a quarter, more or less. The patient is now slung in the Sayre apparatus and position, and the appliance, carefully padded, is accurately applied to that part of the child's back extending from the first sacral vertebra to the point of greatest kyphosis.

On inspection at this stage, it will be noticed that the lateral bars lie closely to the vertebral transverse processes at a distance of one inch and a quarter, more or less, from each other, from the first sacral vertebra to the point of the greatest kyphosis, *and at this point they are acutely flexed. It is by this flexion that we look for the correction of the kyphosis.*

These lateral bars are united and formed into a distinct brace by three transverse bars and a pelvic band, the three former being in the following positions: One, of medium length, usually about two inches below the kyphosis; the second, a little longer, on a level with the inferior aspect of the posterior axillary fold (but not in the extended position); and the third, usually little more than two inches and a quarter in length, unites the upper ends of both lateral bars. It is to be noted here that the greater length of the second and third bars is arranged that these bars may be used, both to form a union between the jacket and the brace, and also to serve as a means of adjusting shoulder straps.

Next, we remove the two middle transverse bars, being careful only partly to replace the screws into the holes bored into the lateral bars for their reception. The brace now being ready and in position, it is to be held firmly against the patient, and a firm plaster-of-Paris band is placed around both patient and brace in the pelvic and other regions below the point of greatest kyphosis. (Fig. 3.) When we feel sure that the brace is immovably anchored to the pelvis, we may again examine the position of the brace in relation to the kyphosis, and if the angle of extension is exactly at the point of greatest prominence, the assistant may extend the patient until his spine reaches the brace. The patient, being thus held in superextension, a second firm band of plaster of Paris is made to encircle both the upper sternal region of the patient and the upper extremity of the brace. (Fig. 4.)

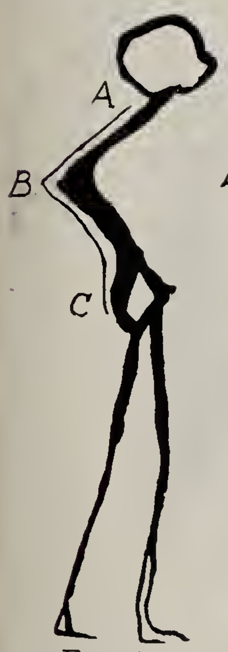


Fig. 1.

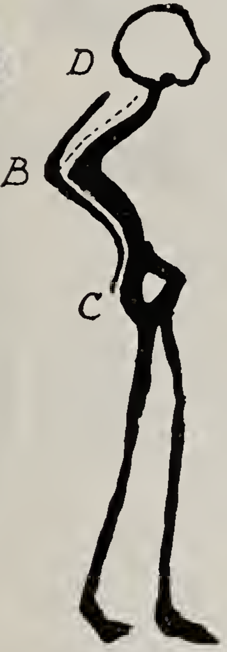


Fig. 2.

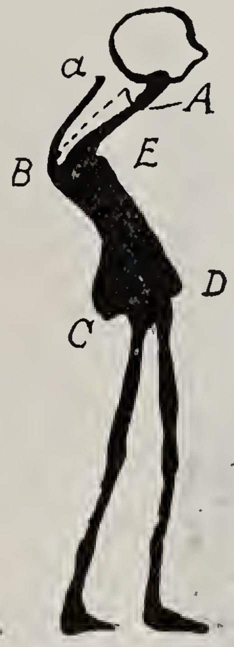


Fig. 3.

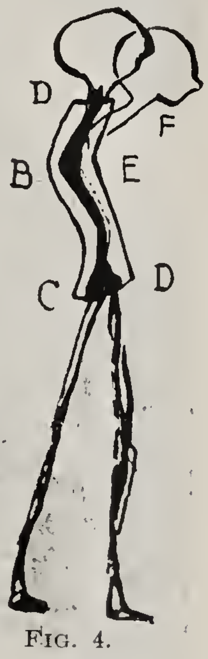


Fig. 4.

Let us now briefly consider the mechanics of what has been done. The brace is simply a lever whose pelvic extremity is the fulcrum and whose upper extremity is the power, but whose resistance is at the kyphosis. This lever can be made to, and will, exert pressure at the fulcrum, or point of kyphosis, and thus tend to draw the diseased bodies of the vertebræ apart, and also to extend the whole vertebral column above that point and transfer the superimposed weight from the bodies to the transverse processes of the vertebræ, thus reducing the kyphosis. In addition, it will perfectly immobilize the vertebral column, and, by preventing attrition, place the diseased parts in the most favorable position for the arrest of the tuberculous process. The next procedure is to fill in the gap in the plaster, and this may be done lightly, as little is needed from this part of the appliance. At this stage, it will be well to replace the two transverse bars which had been detached from the brace previously to incorporating it in the plaster.

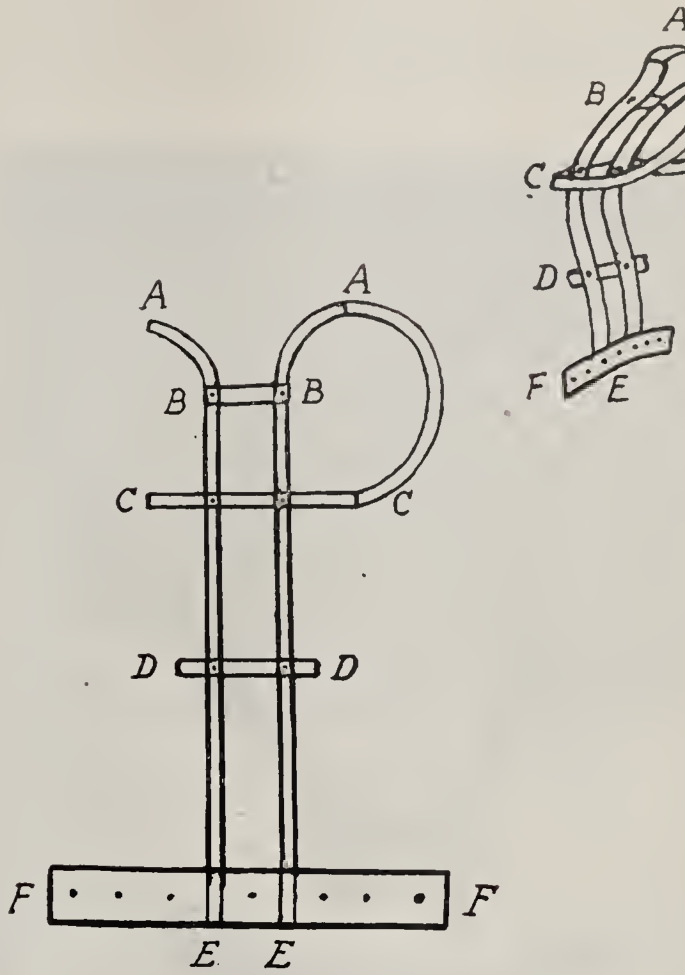


Fig. 5.

In some instances, if considered advantageous, a disc in the plaster of Paris may be excised over the point of kyphosis. This has been done by the writer in several cases, and in one patient a large oval portion of the jacket was excised from that part over the umbilical region.

The former plan is particularly useful when an excoriation already exists over the kyphosis. It also allows inspection of the parts in cases where there may be doubt as to the position of the angle of flexion of the correction brace.

A possible modification is the omission of the middle, or thin, part of the jacket; but this is not advised, as this part certainly tends to keep in place the pelvic and upper dorsal portions.

This appliance might be termed a Taylor brace covered by a plaster-of-Paris jacket. Its action is based, to a great extent, on the theory of the Taylor brace, but for its curative action and its firm support, it seems to surpass both these means of treatment; and, consequently, while perhaps not suited to all cases, seems to deserve a place amongst the methods of treatment in Pott's disease.

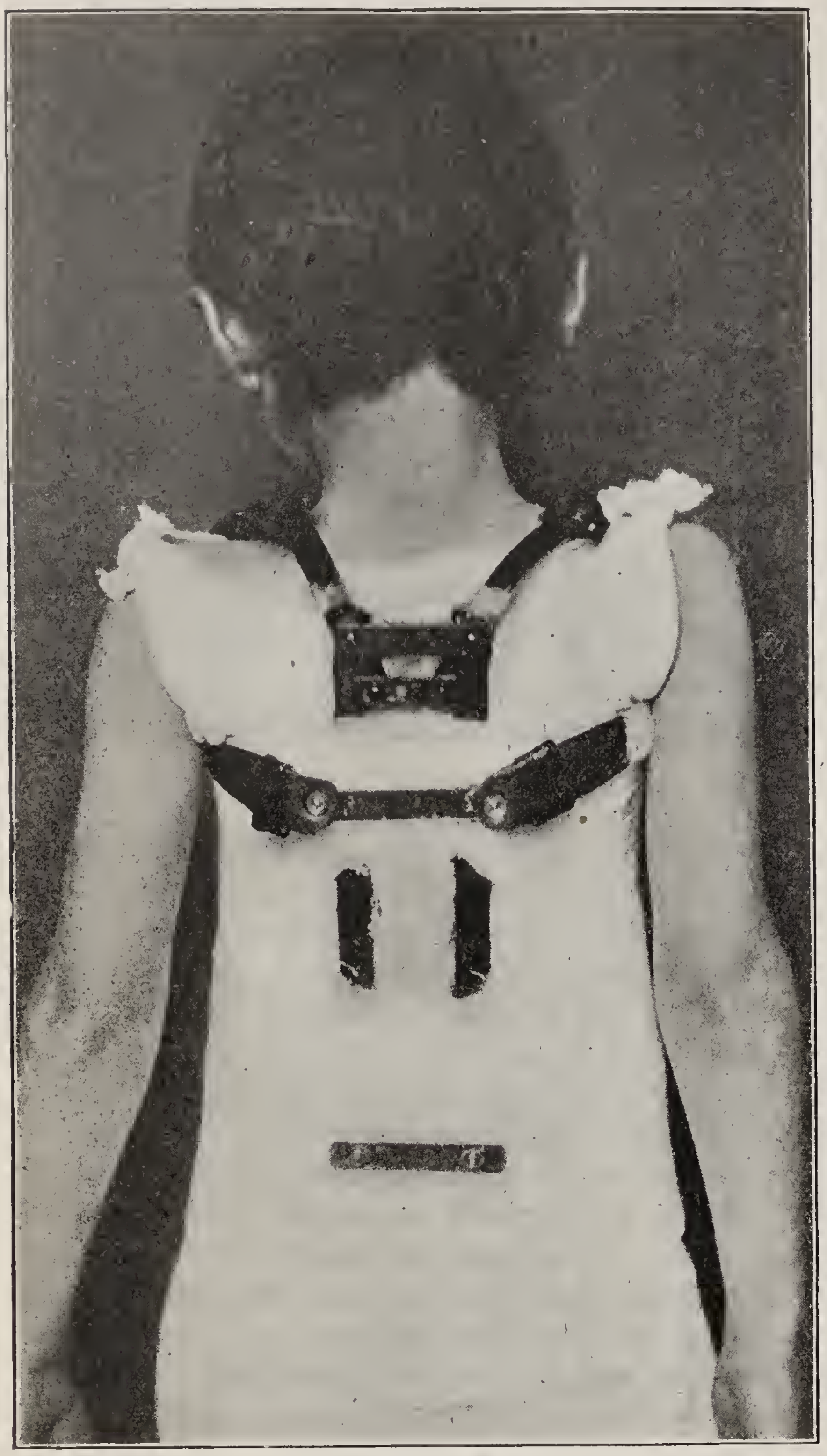


FIG. 6.

It may be well to remark here, that, in order that complete correction of the kyphosis may be attained, the appliance must be removed at stated intervals and the angle of extension increased, if this shall be found necessary, before the apparatus is reapplied. This should be done with the same care as was used at the first *séance*. Before concluding, the following points may be mentioned among some of the advantages to be gained by this combination:

(1) It possesses a greater and surer leverage than either a jacket or a brace alone.

(2) The method of application and reapplication, combined with thorough retention in the new position, assures correction of the deformity, which, otherwise, to use the words of Whitman (2), "may increase the disease."

(3) The combination is preferable for patients suffering from low Pott's disease, as a jacket is universally acknowledged to control these cases but slightly, and it is certainly surer than a brace which is generally employed in such disease.

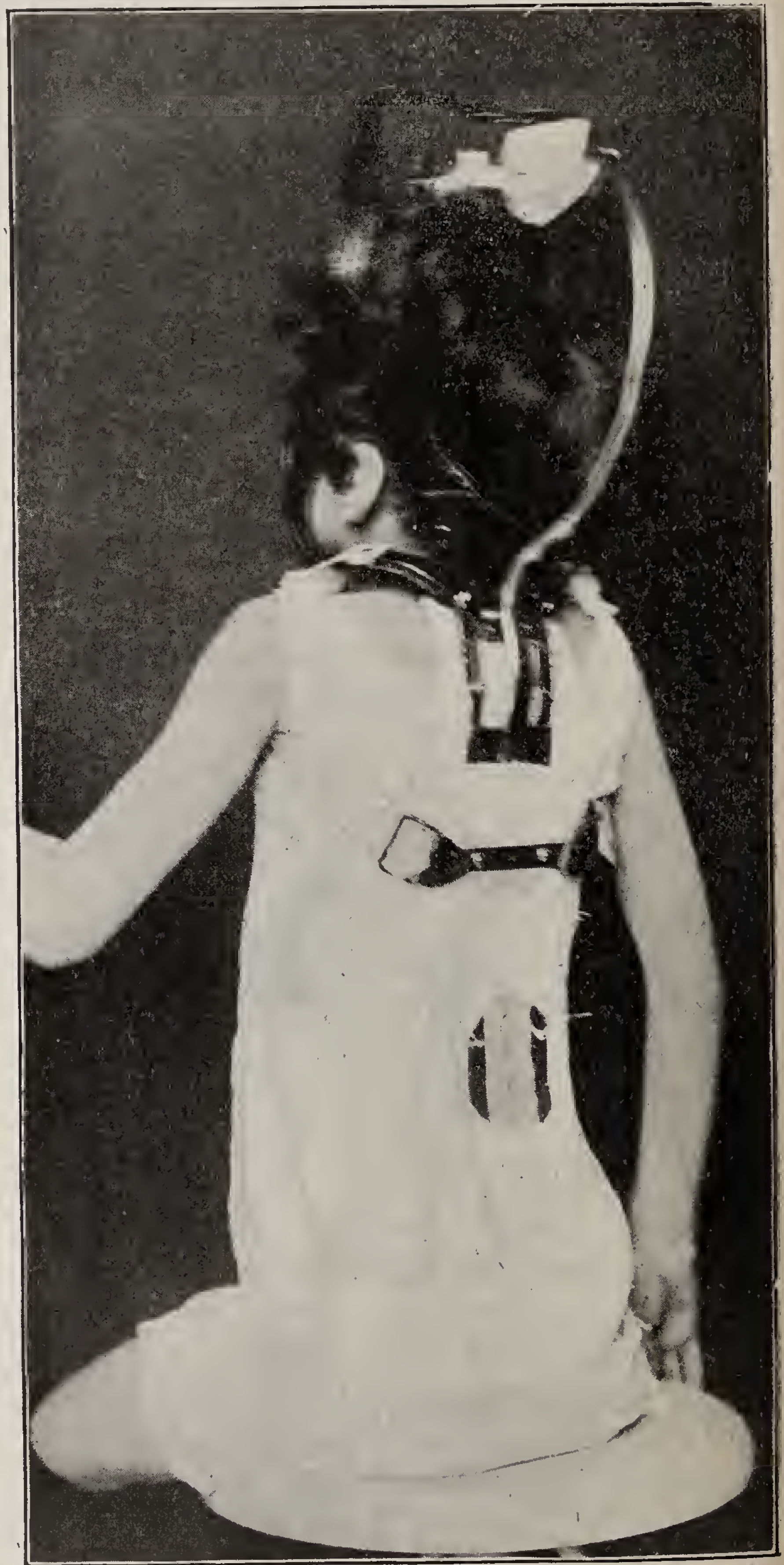


FIG. 7.

(4) Apparatus suitable for the fixation of the head or shoulders can be used in desirable cases, and the writer, feeling the advantage of the latter, especially in the disease above the eighth dorsal vertebra, has used either these or the "Whitman shoulder brace" in ninety per cent. of his series of cases.

(5) This appliance lasts longer than the jacket without a brace, and is curative from the day it is applied until it is removed—thus markedly differing from the ordinary plaster-of-Paris jacket, which seems to lose its efficiency with age.

(6) It enables the surgeon to apply a much lighter jacket than that ordinarily used.

(7) It is certainly advantageous for those cases of "Pott's" in adults in which the surgeon considers plaster suitable: since a jacket, to be efficient for these patients, must necessarily be very heavy.

(8) In patients suffering from oncoming paralyses, or pareses, in whom the surgeon desires spinal immobilization and extension as well as recumbency, this appliance is naturally to be preferred to a jacket alone, especially when it is remembered that the straightening of the kyphosis has often resulted in immediate improvement.

(9) Excoriations over the kyphosis will not follow the use of this method, and, in cases where these have already existed, their dressing may take place through the fenestra in the plaster over that part.

(10) It seems certain that jackets neither prevent the formation of a kyphosis, nor its increase when present. Consequently, this combination should be used in those cases in which the more constant immobilization of plaster is required instead of a brace.

(11) Since the investigations of Lovett, of Boston, as set forth in an article entitled The Mechanics of Lateral Curvature of the Spine (3), it has been suggested that the prevention of extreme lumbar lordosis may help the correction of dorsal kyphosis, the proof of which theory would tend to demonstrate, at least from a theoretical point of view, the superiority of this corrective apparatus over those now in general use.

In concluding, the writer wishes to acknowledge his indebtedness to Dr. V. P. Gibney and Dr. Royal Whitman in allowing him to employ this apparatus in their wards at the Hospital for the Ruptured and Crippled, New York; also to the staff, in general, for their kindly aid in applying this combination of jacket and brace.

References.

(1) E. H. Bradford and J. F. Cotton, *Boston Medical and Surgical Journal,* September 20, 1900.

(2) Royal Whitman, Observations on Pott's Disease, *New York Medical Journal,* October, 1893.

(3) Robert Lovett, *Boston Medical and Surgical Journal,* June, 1900.

164 Peel Street.

RECRUDESCING ANGINA, DUE TO FRIEDLÄNDER'S BACILLUS.*

By EMIL MAYER, M. D.,

NEW YORK.

This bacillus, first described by Friedländer in 1882, who found it occurring in an attack of fibrinous pneumonia, is an ellipsoid coccus, swelling at ordinary temperature and assuming the form of a clove in gelatin. This microbe of Friedländer belongs to the group of simple saprophytes, frequently occurring in the mucous membrane of the bronchial tubes, rarely invading the lungs, where it grows rapidly before death.

These bacilli have been found in stomatitis, ozæna, rhinoscleroma, acute suppurative rhinitis, in pus in the antrum of Highmore, in membranous bronchitis, suppurating dacryocystitis, and in ulcers of the cornea. All these have been found in local manifestations.

In manifestations by extension they have been found in parotiditis, otitis, bronchopneumonia, purulent pleurisy, pericarditis, pyelonephritis, and meningitis. Generally, they are found in pyæmia and septicæmia.

The first mention of its occurrence in connection with pharyngeal affections was made by Max Stoss in 1895, in *Mittheilungen aus der Schweiz.* The brief report states that a woman, aged thirty, was examined on February 7, 1893, for a pharyngeal affection which had lasted eight days, and whose general symptoms were insignificant. On the right tonsil and slightly on the right pillar of the pharyngeal wall there was a white, rounded exudate, culture from which showed the bacillus of Friedländer in pure culture.

The next cases noted are those of M. Gargam, who handed them over to M. Ch. Nicolle for bacteriological examination.

Five cases in all are reported in the *Annals of the Pasteur Institute* (Vol. xi, 1897) by M. Nicolle, and these cases, with minute description of the bacteriological investigation, form the basis of a *Thèse de Paris,* 1896, by M. Hebert, a student of M. Nicolle's. These two investigators found the bacillus of Friedländer eight times in cultures taken from 1,600 diseased throats. A brief report of the five cases noted here follows:

Case I.—Miss B., aged twenty, was first seen in December, 1895, by M. Gargam. She complained of laryngitis, which attacked her during her singing lesson. Three years previously she had had scarlatina with sore throat. The examination of her throat at present showed white points 3 or 4 mm. in diameter, disseminated over both tonsils, on the pharynx, and back of the right posterior pillar. Their color was pearly white, they were very adherent and difficult to remove with forceps. The surface underneath bled readily after their removal. No glandular swelling, no difficulty in swallowing, and no fever. General condition excellent. On December 4th the laryngitis disappeared, but the plaques on the tonsils and pharynx persisted. Cauterization with pure lactic acid. It was noticed on the following days, that these plaques were increased and thickened on the surface. Certain ones were nearly ½ cm. in width. Patient returned on the 15th of May, 1896, with the pharynx in the same state as at first. Cauterization with galvanocautery at all the diseased points. The burned portions did not again become covered with false membranes, but there were new points hidden back of the tonsil and on the posterior pillar. These were cauterized. By September the patient was cured.

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*Read before the American Laryngological Association at its twenty-second annual congress.

A white mouse, inoculated at the root of its tail, was examined after fourteen hours. The blood gave a pure culture of diplobacilli which showed plainly the bacillus of Friedländer.

CASE II.—Miss X., nine years old, had a sensation of heat in the throat which was worse in the morning and caused coughing. Examined on the 12th of January, 1896. On each tonsil there was a small deposit of grayish-brown membrane. No acute inflammation of the tonsils, no pain in swallowing, no fever. In July the patient was again seen. Pharynx in same condition. There existed on the tonsils the white plaques, very adherent, thickened and leaving a bloody surface when removed. General health continued good. The same results were found as in first case on bacteriological examination.

CASE III.—A young man, examined on the 7th of June, had had a sensation of heat in the throat existing for some time. On the tonsils there were noticed pearly white points directly over the crypts, very adherent. There were similar plaques on the posterior pillar of the right, but no swelling and no pain. He was not seen again. The same bacillus was found.

CASE IV.—Mme. B., aged thirty-five, was diagnosticated to have the angina of the bacillus of Friedländer. On the 9th of July she showed aphthous stomatitis, gingivitis, and small ulcerations on the tongue and inner portion of the cheek. The tonsils were large and covered with the pearly white membrane adherent to the tissues underneath. They were larger on the right than on the left and 3 or 4 mm. in diameter. Their edges were clear and rounded. Situated below the crypts, they resisted pressure and were not expressed, as in follicular amygdalitis. On the side of their adherence they were very friable and it became necessary to employ the curette for detaching them. The surface of implantation was bloody. On the right tonsil there existed a sort of mucous veil, very adherent, covering its largest part. The pillars also were strewn with points, and there was one plaque on the pharynx. The patient had had many attacks of acute amygdalitis in infancy, pneumonia at the age of seven, bronchitis at twenty-nine, and acute anginas two years ago and last year. At the beginning of her stomatitis she had slight fever, swallowing was difficult, and the glands were slightly enlarged. These symptoms disappeared rapidly. On July 20th the condition remained quite the same, with no pain in deglutition. Cauterization with silver nitrate and lavage with carbolized solutions. Several examinations showed the same bacillus as in the other cases.

CASE V.—A girl, sixteen years old, had had variola at the age of two, and acute articular rheumatism at the age of eight. Menstruation began at fifteen, and was abundant and painful. Examination on the 15th of March. She had complained for fifteen days before of headaches and insomnia, also of pains in the legs, which were slightly swollen. Examination of the pharynx showed the tonsils slightly inflamed and hypertrophied. The crypts were covered by false membranes that were adherent. Tongue red, no pain in swallowing. On the 19th of March there was general erythema, especially on the extremities. During all this time and up to the 29th of March the tonsillar trouble remained stationary and did not disappear until the 10th of April. Same bacillus found.

W. C. C. Pakes, in an article entitled The Bacillus of Friedländer in Pharyngitis and Tonsillitis (*British Medical Journal,* March 20, 1897), states that since November, 1894, upward of 500 serum tubes inoculated from the throats of patients in the wards or out-patients of Guy's Hospital have been examined and the bacillus of Friedländer found five times. Twice it was found on the surface of the serum in pure cultivation, twice in association with the Klebs-Löffler bacillus, and once with the *Staphylococcus aureus.* The five cases are briefly reported and no subsequent observations were possible. Three of the cases were in children and two in men aged twenty and thirty respectively.

Two more cases are reported by A. Billet (*Presse médicale,* March 8, 1899).

In March and April, 1898, Billet treated a certain number of anginas with rather severe manifestations; three of them diphtheritic, all of them in members of the Third Regiment of Chasseurs. Systematic examination of all the throats of the cavalrymen in the squadron where these anginas occurred enabled him to discover two cases of angina with Friedländer's bacillus. The first showed the pneumobacillus associated with the short bacillus of Löffler; the second, pure cultures of the Friedländer bacillus.

The first patient slept in a bed adjoining that of a comrade who some four days previously had had an attack of diphtheria. The entire throat was uniformly red. The tonsils were chronically hypertrophied, and on each, posteriorly and near to the posterior pillar, there was a small plaque, grayish white, which appeared to be formed by the confluence of several white points. These plaques were rather difficult to detach even with a curette. They did not disintegrate when placed in water. Deglutition was painful. Tongue coated, slight elevation of temperature, no glandular swelling, and general condition good. At the end of three weeks there was still a slight opalescence on the right tonsil.

In the second case, that of a man aged twenty-two, the pharynx was nearly normal except the uvula, which was reddened, the tonsil slightly tumefied, almost entirely covered with a grayish exudate strewn with three small points. The plaque was raised with difficulty and the tonsil bled. Dyspnœa very slight, a cough with no lung involvement, tongue natural, temperature slightly elevated, no headache or swelling of glands. Sixteen days later, there still existed a thin covering, which, on examination, showed no bacilli.

These were all the cases of this affection that a diligent search of the literature has enabled me to find. The following is my own case:

On September 8, 1899, Miss L. D. came under my observation through the courtesy of Dr. John O. McReynolds, of Dallas, Texas. Her history had been briefly presented to the Section in Laryngology and Otology at the fiftieth annual meeting of the American Medical Association, held at Columbus, Ohio, in June, 1899. The study that Dr. McReynolds made of the case led him to the conclusion that the condition was identical with that described by Sir Morell Mackenzie as chronic diphtheria. The case in point differs so widely from ordinary diphtheria that he would suggest the name "chronic recurring membranous pharyngitis" until a more accurate knowledge of the subject can be obtained. The case was placed in my hands, with a request to assist in the elucidation of the problem.

Her history as then presented and subsequently published (*Journal of the American Medical Association,* December 2, 1899) was as follows: "The patient, who is now under my care, Miss L. D., nineteen years old, and in fair general health, I have observed for fourteen months. When uninfluenced by treatment the membrane will recur two or three times a week, and each time will remain one or two days and then become completely exfoliated of its own accord, leaving the throat in apparently a healthy condition. But if it is removed forcibly and prematurely, it leaves a raw surface covered by a glairy material, and readily bleeds on manipulation. The area varies at different times, and it sometimes covers the entire pharynx and soft palate; it always covers the latter. The specimen which I show to you was taken from the soft palate and before its removal had all the pearly whiteness of enamel, with numerous fine pinhole perforations.

"The microscopic examination which has been repeatedly made, both with and without cultures, has never revealed the bacillus of diphtheria, although the patient several years ago had an attack of genuine diphtheria. The micro-organisms found in large quantities were streptococci and staphylococci, but there is no evidence to prove their causative relation.

"The patient has been able to follow her vocation with only slight interruptions, and the constitutional manifestations have been mild in comparison with the marked local involvement. The disease is entirely distinct from pharyngomycosis and allied affections, and from the various transient forms of membranous pharyngitis. The daily ingestion of raw onions or the local application of strong solutions of iodine or nitrate of silver will keep off the membrane for a period of two weeks, but after using a multitude of remedies, I have found nothing that will produce a permanent cure, although I am confident that the disease will in due time spontaneously subside."

My own notes of the examination made at that time are as follows: Patient is a tall, well-developed young woman in her twenty-first year, is anæmic, and has a liberal supply of acne rosacea on her face. Her general health is good and her complaints are confined to her throat. For nearly eighteen months she has not been free from membrane more than fourteen days, and more often but two or three days elapse from the date of disappearance to the reappearance of a new membrane. It begins with a sense of tightness in her pharynx, and she declares that a new membrane is forming. The soft palate becomes opaque-looking, and a very thin, adherent, and non-transparent membrane may be seen. Scattered through it are numerous blebs, very small in size. It is impossible to remove the membrane at this time. In a few hours this membrane becomes thick and is pearly white. The suffering is great at this stage, and the patient has learned to give herself relief by sticking the point of a pair of scissors in it and making gashes through it. The pain thus relieved, all actual discomfort ends. Exfoliation now occurs, and large pieces may be removed without pain, the underlying mucous membrane being reddened but not bleeding, the membrane is all thrown off and nothing can be noted of any preexisting affection from its appearance.

These conditions remained during the entire month that she was under my observation, except that toward the latter part of her stay the membranes had become decidedly thinner as they formed and covered much less area. There were no skin lesions elsewhere, according to the patient, or any lesions of the vaginal or rectal membranes, on the same authority. No persuasion on my part could induce her to permit examination, with the view of determining the condition of those parts. While of late the membrane had appeared on the soft palate only, it had previously existed on the posterior pharyngeal wall and within the larynx. Pieces of membrane as thick as an egg-shell were removed. Cultures were taken and some of the membrane put on agar and sent to the local board of health for their report. The authorities here examine only for the Klebs-Löffler bacilli, and their report was negative in this regard.

"Department of Health, Division of Bacteriology, Bacteriological Laboratory, Sixth Avenue and Fifty-fifth Street, New York, September 11, 1899.

"Dr. Mayer,

"Dear Sir: The examination of the culture made by inoculating the tube with the secretion or exudate from the throat of Miss L. D., on 9/11/'99, does not show the presence of any diphtheria bacilli.

"Examined by H. T. Cronk, M. D.,
"Assistant Bacteriologist.
"Hermann M. Biggs, M. D.,
"Pathologist and Director
"of the Bacteriological Laboratories."

Pieces of membrane were detached and sent to the pathologists, whose reports are here annexed:

"New York Eye and Ear Infirmary,
"September 18, 1899.

"Pathologist's Report on Case of Miss D. to Dr. Mayer.

"Dear Doctor: Referring to the pseudo-membrane submitted, beg leave to say that it is composed of dead epithelium carrying a large number of micro-organisms such as are usually found in the mouth, also a few threads of leptothrix. Nothing in the way of a germ sufficiently distinctive to account for the existing condition was found.

"Very truly,
"Geo. S. Dixon, Asst. Path."

"Department of Pathology,
"College of Physicians and Surgeons, Columbia University.
"437 West Fifty-ninth Street, New York,
"October 24, 1899.

"Report of microscopic examination of specimens of false membrane removed from pharynx of Miss L. D. by Dr. Emil Mayer.

"The specimens were received both in formalin 5 per cent. sol. and in alcohol 95 per cent., and were examined in sections and in teased preparations. The material consists of squamous epithelium, arranged in layers of from three to six cells in thickness. On the surface of the membrane, between the cells, as well as within them, are very numerous bacteria in the form, principally, of short bacilli (see bacteriological examination by Dr. Lartigau). There is no fibrin present, neither can leucocytes, blood-vessels, connective tissue, etc., be detected.

"Eugene Hodenpyl, M. D.,
"Instructor in Pathology."

The findings thus far having been negative, steps were taken to secure a bacteriological examination. An appointment was made with Dr. Lartigau, and the patient was brought to the laboratory. The membrane was removed by myself in the presence of Dr. Hodenpyl and Dr. Lartigau; the instruments were those of Dr. Lartigau, previously sterilized by himself. I append his reports:

"Department of Pathology,
"College of Physicians and Surgeons,
"437 West Fifty-ninth Street,
"New York.

"Report of the Bacteriological Investigation of Dr. Mayer's Case of Recrudescing Angina.

"The result of cover-slip preparations directly from the membrane and the cultivation experiments are essentially identical in their main findings. Moreover, portions of the membrane sectioned and stained for bacteria presented micro-organisms of the same general morphological characters and the several varieties numerically bearing approximately similar relations as in the film studies from the throat and the plate preparations.

"Without iteration of any technicalities of purely bacteriological interest in the narrowest sense, the main cultural and cover-slip studies may be briefly summarized in the following:

"A number of films made directly from the membrane *in situ* (half a dozen) were stained, some with aniline-gentian violet (Sterling's), others with alkaline methylene-blue; the remaining cover-slips were treated with Gram's iodine stain and Welch's capsule stain. They all contained very many short, rod-shaped organisms with blunt ends, with no noteworthy or predominant disposition. Many were mistaken for cocci, more especially those showing a diplo-arrangement and capsule formation. Welch's method brought out the capsule formation very distinctly. When treated with Gram, the organisms lose their stain. In addition to the above, a few groups of large tetrad cocci were made out which did not decolorize by Gram.

"*Cultural Studies.*—Aerobic and anaerobic plates were made in agar-agar and gelatin; blood-serum tubes were likewise inoculated. All showed abundant growth at the end of thirty-four hours. No difference was observed in the cultures grown in the presence of oxygen from those placed in anaerobic conditions. The predominant organism consisted of a short bacillus possessing coccoid tendencies, the colonies of which were small, round, pin-point or somewhat larger, grayish colonies, finely granular. In each Petri dish from 2 to 8 large, thick, milky white colonies were present, which in cover-slips showed cocci having an indefinite tetrad arrangement.

"The predominant organism was identified by all known tests as the *bacillus of Friedländer;* the cocci as *Micrococcus tetragenus.*

"*Animal Experiments.*—One cu. cm. of a 24-hr.-old bouillon culture subcutaneously inoculated into a guinea-pig produced no apparent reaction; a similar dose subcutaneously into a rabbit resulted negatively; two cu. cm. of a similar culture, introduced intravenously, inoculated into a rabbit (full-grown) likewise showed no pathogenic disposition for this animal.

"*Remarks.*—Notwithstanding the lack of pathogenicity of the bacillus of Friedländer for the animals mentioned under the conditions described, it seems likely that this organism is the ætiological factor intimately associated in causative relations to the angina of the throat. The invariable predominance of it (indeed, always in almost pure culture) in the membrane, films, and cultures is so suggestive that to discard it from any ætiological importance seems inconsistent with the facts, although not so in a rigorous sense.

"August Jerome Lartigau."

Bacteriological Report.

"*Study of Smears from the Membrane.*—These were made from portions of the membrane removed from various parts of the pharynx, uvula and soft palate. The study consisted of an examination of specimens stained with aniline-gentian violet, carbol-fuchsine, alkaline methylene-blue, thionin (Roux), Gram's, and Welch's methods of coloration. In addition to a few large squamous epithelial cells, polymorphonuclear leucocytes and some granular débris, the cover-slip preparations invariably showed two micro-organisms, a bacillus and a tetrad coccus, the latter occurring very infrequently and in small numbers. Subsequent cultural examinations proved this organism to be the *Micrococcus tetragenus.* The bacillus was so manifestly predominant in all the smears that for practical purposes it could be regarded as being present in pure culture.

"Apart from slight morphological variations dependent upon the tinctorial procedures employed, the predominant organism presented strikingly similar appearances under the different conditions of study. The disposition was quite constantly that of a diplobacillus, sometimes discrete in its arrangement, but equally often irregular masses of bacilli could be observed. For the most part it was a moderately thick organism, slightly longer than thick, and quite short, with rounded ends. Indeed, the earliest impression led one to believe that they were diplococci. In all instances the staining was regular. Capsule formation was quite constant and well observed in those specimens which were prepared according to Welch's method; one capsule generally included two members. Decolorization was complete with Gram's stain.

"*Cultural Behavior.*—Bits of the membranous exudate were taken from several parts of the throat and directly placed in bouillon. From the emulsions prepared in this manner agar- and gelatin-plates were made of different dilutions, the agar plates incubated at 37½° C. under both aerobic and anaerobic conditions, whilst the gelatin plates were all aerobically grown at room temperature. At the end of thirty-four hours the agar cultures of low dilutions contained many small, discrete, pin-head-sized, white oval or round colonies. The growth of the gelatin plates was manifestly less active and less abundant. Examined under the low power by transmitted light, the deep colonies were either round or oval, more or less sharply defined, finely granular, and yellowish in color. The surface colonies, in addition to being larger, were also thicker and white in color. Insignificant differences of growth were observed in the cultures grown with free access to oxygen and those cultivated anaerobically. All the plates contained from one to eight colonies (readily distinguishable) of the *Micrococcus tetragenus.* The growth of the diplobacillus was active in all media.

"*Agar-slant.*—More often the appearances were those of a pneumococcus growth—small discrete colonies. Sometimes the culture consisted of a mucus-like, rather thick, moist, white diffuse streak.

"*Blood serum.*—The appearances were those of growths upon agar.

"*Gelatin stab.*—Small discrete and white colonies along the line of inoculation. The gelatin was not liquefied at the end of twenty-two days. On the surface the growth was somewhat thick and elevated; only occasionally, however, was the so-called 'nail-shaped' growth typical. In a few of the stab-cultures a few gas-bubbles developed.

"*Bouillon.*—Diffusely cloudy at the end of thirty hours in some cultures; in others cloudiness very slight.

"*Dunham's peptone solution.*—The behavior practically the same as in bouillon. No indol reaction.

"*Litmus milk.*—Acidified and slowly coagulated.

"*Potato.*—Sticky, brownish yellow, thick growth; gas-bubbles commonly observed.

"*Sugar media.*—Gas formation with dextrose, lactose, and mannite. The organism in cover-slips from cultures on various media exhibited in many particulars the same morphological features observed in the films from the throat membrane, but differing from it in numerous respects—the diplo-arrangement was distinctly less evident, the bacilli generally larger and not infrequently filamentous; moreover, capsule or spare formation were not noted. Hanging-drop preparations were repeatedly studied, but no motility was ever detected.

"*Animal Inoculations.*—Two full-grown guinea-pigs were inoculated subcutaneously with three and five cubic centimetres, respectively, of an emulsion made in bouillon with portions of the membrane taken from the throat. The pig which received the larger dose died at the end of nineteen days. The anatomico-pathological findings were nil, but the inoculated organism was recovered from the spleen. A number of rabbits were likewise inoculated with varying doses of the same emulsion, but the results were totally negative. Pure cultures introduced both beneath the skin and intravenously failed to induce any untoward effect except in extremely large doses. In one rabbit the throat was slightly scarified, then rubbed with a pure bouillon culture, but the effect was again negative. Experimental inoculations of the *Micrococcus tetragenus* into guinea-pigs and rabbits similarly gave no better results.

"*Bacteriological diagnosis.*—Bacillus of Friedländer.

"*Remarks.*—Any interpretation of the results obtained in this restricted study must perforce be cautious; the limitations of an investigation of this order are too manifestly obvious to necessitate any instance. Several facts of importance should not be dismissed without due consideration in the determination of the relation of this micro-organism to the clinical presentation of the case—the predominance of the bacillus of Friedländer in all the cultures and practical absence of all other microbic species. Furthermore, the organism in question is known not to be commonly present in the mouth or throat in such numbers. Over against this, the almost complete lack of virulence militates strongly in any causal association to the lesion produced.

"August Jerome Lartigau."

The cases here presented must all be studied together in order to determine their similarity. The conclusions arrived at by Pakes and Billet are in accord with those of Stoss, Nicolle, and Hebert, who find that this malady shows itself in two forms, acute and chronic. The symptoms are different in both cases.

In the subacute form, we find on the tonsils the false membrane, whitish brown or pearly, somewhat adherent, and on the pillars of the walls of the palate. The subjacent tissue is slightly inflamed.

In the chronic form, the tonsils are strewn with white points, pearly or yellow elevations of dimensions varying from 1 to 5 mm. and more in diameter. The border is round and clear. They show not only on the tonsils, but invade the pillars, the palate, and the posterior surface of the pharynx. They adhere closely to the subjacent mucosa, which appears bloody or very slightly inflamed.

If we attempt to remove them with a tampon of cotton, only the superficial portion comes away. It is necessary to use forceps or curette. The white points removed are slightly friable and are easily separated with a pin, but, thrown into water, do not dissolve. We have, then, a false membrane in the strictest sense. These false membranes rest mostly below the crypts of the tonsil and are adherent. Expression of the tonsil is not followed by their exudation from the crypts. After they are removed they reproduce on the same place with rapidity, increasing in size. In spite of this, there is no tendency for them to join one to the other, forming a continuous membrane as in diphtheria.

In a microscopic examination of the false membrane we find epithelial cells of the pavement variety, very rarely leucocytes, with some filaments of fibrin; numerous bacilli of Friedländer, ordinarily small but polymorphous; certain cocci; elements of leptothrix.

The false membranes show the following constitution: Superficial form of fibrin, débris of pavement epithelium and white globules in which are a large number of bacilli of Friedländer. In the deeper portion leucocytes are found.

Symptoms.—Occasionally there is a sense of heat and dryness in the throat, inciting a desire to cough or frequent attempts to swallow. Often the functional signs are nothing, and it is only by chance that the patient perceives the white spots in the back of the throat. There are no pain in swallowing, no troubles of the voice, and no swelling of the glands.

The general signs of the subacute form that may exist previously are some fever and a little lassitude and headache.

In the chronic form the general symptoms are absent; there is neither elevation of temperature nor interference with the appetite, neither diarrhœa nor constipation. There are no respiratory, circulatory, or urinary troubles. In one case general erythema was noticed. Could this have had any possible relation to the bacillus? It is known that in the septicæmia due to this micro-organism, purpura may occur.

We know nothing of the mode of entrance of these anginas. In certain cases the affection lasts from two weeks to three, while in the greater number it is chronic, persisting many months without our being able to fix the duration. The chronicity of these anginas need not surprise us when we remember that the bacillus of Friedländer occurs often in affections of long duration, as in certain forms of membranous bronchitis, dacryocystitis, and otitis, probably in rhinoscleroma, and perhaps in ozæna. The tendency to recurrence is shown by its rapid return after removal. The prognosis is good. The affection is cured spontaneously in the subacute form or recedes under treatment.

Clinical Diagnosis.—This is very easy if one bears in mind the symptoms already mentioned. Besides the exudate, there is nothing to show that we have to deal with an acute angina, especially one of a diphtheritic origin. Besides, the diagnosis is readily made by the presence of the white deposit on the pharynx without symptoms. In pultaceous anginas the symptoms are alike. The membrane in the former is easily removed and dissolves in water. In pseudo-membranous anginas there are numerous general symptoms. In chronic lacunar amygdalitis the masses are seen at the crypts, when pressure is exerted they exude, and all the symptoms of constitutional disturbance are present. Calcareous concretions are very hard and exist in small number. In leptothrix there is much similarity, but microscopic examination will show the difference at once.

The following conclusions are reached by Nicolle and Hebert: There exists a group of subacute or chronic anginas which have distinct clinical characteristics. The membranes are pearly white or whitish brown, slightly elevated, adherent to the subjacent membrane, and recurring rapidly on removal.

Functional Symptoms.—These are next to nothing. There is resistance to treatment in the chronic form, which is most common.

These anginas are due to the bacillus of Friedländer, which we find in great abundance in the false membrane. In the clinical aspect they appear much like leptothrix, with which they have been several times confounded. Bacteriological examination always assures the diagnosis.

The bacilli of Friedländer isolated from their patient presented the morphological and biological characteristics which are to be found in the classic description of this bacillus, already presented in the body of their work.

The similarity of the cases found in literature and the one presented by myself is striking, there being the same rounded character to the edges, the same pearly points strewn through the membrane, the same adhesiveness in the early stages, and the same bacillus in pure culture.

Some points of difference should be noted. In but one of the other cases was there a continuous plaque. In my own case the entire soft palate was covered, the pillars were free, and the posterior wall had its independent membrane. In none of the recorded cases was there any exfoliation; in my case there was, and for from one to fourteen days at most there was a respite, when the membrane formed anew. In this essential particular there was a difference. The chronicity, the absence of any constitutional signs, the membrane formation, and the bacillus, which, inoculated, was subsequently found in the spleen of an animal, permit but one answer to the question of diagnosis, and that is, that we have undoubtedly to deal with a case of chronic angina due to the bacillus of Friedländer.

One point in the differential diagnosis of my case must not be overlooked, and that is the possibility of malingering. It is known that a lymph exudate may be occasioned on the pharynx of guinea-pigs if applications of ammonia water are made, and a case is recorded in which a young woman introduced cantharides powder into her mouth (Alex. Haslund, *Hosp. Tid.*, 1899, No. 9), producing stomatitis.

This question of malingering was therefore here raised and negatived to my mind, her attending physician also stating that he had no doubt whatever as to the genuineness of her trouble, and that he had failed to discover any proof of sexual perversion. He further states: "I have found that when I could prevent the appearance of the membrane in the throat for a while by local applications it seemed to develop in a modified form in the external canal of the ear, with some involvement of the middle ear. This would certainly exclude the question of malingering.

"Regarding treatment, nothing seemed to be of any avail during the time I saw her, but, in a later communication, I am informed that an alcoholic solution of orthoform will render her perfectly comfortable at all times, and not only this, but diminishes decidedly the severity and frequency of the membranes. Iodine solution adds to her comfort."

Finally, the conclusions we arrive at from a study of these cases, are:

1. That anginas due to the bacillus of Friedländer may exist in a subacute or chronic form.
2. They occasion no distress, except perhaps in the beginning of the membranous deposit.
3. They may appear in membranous form, exfoliating and recurring.
4. In the chronic form treatment seems to be of no avail, the bacilli eventually becoming much less active, and the condition ceases by limitation.
5. They are probably much more frequent than the few recorded cases seem to indicate.

My thanks are due to Dr. McReynolds for the opportunity given me to study this remarkable case and to Dr. Percy Fridenberg, of this city, for an artistic representation of the existing condition.

A Russian Palace as a Sanatorium.—The *Archiev Pathologyi* for August, 1900, states that the palace of the late Grand Duke Georgyi Alexandrovitch, brother of the Czar, and heir presumptive to the throne, will be converted into a sanatorium for consumptives.

INTRASPINAL COCAINIZATION FROM THE ANÆSTHETIST'S STANDPOINT.*

By S. ORMOND GOLDAN, M. D.,

NEW YORK.

Since reporting my first twenty cases (*Philadelphia Medical Journal,* November 3, 1900), in which the lumbar puncture and cocainization were employed, I have used the method in eleven others. My experience in the last cases has not been materially different from that in the others and has only led me further to make comparisons with our general anæsthetics, gas and its modifications, ether, and chloroform. I might say, in general, that my experience includes many more successes than failures so far as the simple anæsthesia is concerned—others have been partial successes and others again most successful failures. This has been the experience of all those who have used the method. I realized early the importance of ascertaining the causes of failure and the unpleasant features of this method and their eliminations. Had not the technique in every case, even to the preparation of the cocaine solution, the puncture injection, and observations, been made by me I might possibly ascribe the failure to some such causes as have been assigned by the various investigators, such as:

Too large needles, or improper bevel.

Inability to obtain the cerebrospinal fluid due to its absence or some physical condition of the patient rendering the puncture impossible.

Withdrawing the needle too soon after the injection.

Inert or stale cocaine solution.

Injecting the solution too quickly or too slowly.

Moving the needle slightly and so injecting the solution outside the membranes.

My first two complete failures were, I supposed, due to the first cause mentioned; since then I have found that the needles used were no longer than Tuffier's. I might still say, after having eliminated every possible source of error, that failures or incomplete successes have occurred. I can only emphasize what I stated in my first paper, namely, that cocaine acts in the spinal canal exactly as when injected into the general circulation, and in the same way as any of the alkaloid drugs, so far as dosage and idiosyncrasy are concerned.

Regarding the technique, I still believe more fluid, if anything, should be injected than is lost by the puncture. That is to say that a decrease is less desirable than an increase in tension which is very quickly equalized by absorption into the cerebral veins.

Regarding its use in obstetrics, I fail to see any advantage over chloroform, which is universally considered safe, in my estimation, not because of cerebral congestion said to be present, but from the enlarged and heavy uterus filling the abdominal cavity and keeping the blood of the patient out of the splanchnic area, and so causing an increased blood pressure—chloroform being a vasomotor paralysant in this condition, it cannot easily exert its baneful influence upon the circulatory apparatus, or, if it does, it is counteracted by the peculiar condition existing.

If we glance over the literature and note the ridiculously minor operations performed with spinal anæsthesia, it cannot but fill any one with amazement. Is there any reason why gas, or at least gas and ether, should not have been employed except this questionable one of convenience? I have said before that convenience can never be considered in preference to safety. In abdominal surgery the method is most unsatisfactory; the patients often become alarmed in spite of every effort to reassure them (note case 31), and then a general anæsthetic must be substituted. It is well enough to say that a rapid operator can finish his operation before the anæsthesia passes off, but often the nature of the operation requires more time, even with the most rapid operator, than the spinal cocainization gives.

In the last eleven cases in which the lumbar puncture and injection were performed six patients were females, five males.

No difficulty was experienced in making the puncture and injection, except in the second instance, case 30. This patient had an ankylosis of the spine. No difficulty was experienced in the first puncture between the fourth and fifth vertebræ; but, as anæsthesia was not extensive enough, a second puncture was attempted between the third and fourth vertebræ, and then between the second and third, without success. Puncture between the fourth and fifth vertebræ was again tried, and without any difficulty the needle entered the subarachnoid space. This patient had received an injury to the spine through a fall from a high window. Cerebrospinal fluid was obtained in every case and most rigid precautions were observed to exclude every possible error in technique.

In all the males, in cases 25, 26, 27, 28 and 30, respectively, anæsthesia was secured in every instance. In two cases second injections were necessary, as anæsthesia did not extend sufficiently far for the operations in hand; after the second injections the anæsthesia extended to the axillæ. In the case of a highly neurotic man, after the puncture and injection had been made, and just before the needle was removed, the patient, without warning, straightened up, bending the needle almost to a right angle; had it been steel it would certainly have broken. This demonstrated beautifully the importance of a ductile needle. The needle used was the attenuated gold variety always used for this purpose. In the six female patients, simple anæsthesia was secured, I believe, in but two cases, Nos. 21 and 23, respectively, so far as the operator was concerned. Both operations—in the one case, dilatation, curettage, and anterior colpotomy; in the other, vaginal hysterectomy—were successfully performed with no discomfort to the operator.

In case 22, that of a neurotic Italian, I believe anæsthesia existed, but from the patient's hysterical condition in the ward, it was evident that a general anæsthetic would be necessary, and this proved to be the case.

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*Read in a discussion on Spinal Anæsthesia before the Medical Association of the Greater City of New York, December 10, 1900.

In case 24, anæsthesia was, I believe, delayed; the operation, posterior colpotomy and oophorectomy, was begun within ten minutes after the puncture, and was extremely painful to the patient; toward the end of the operation no pain was experienced. This probably would have been a successful case had more time for anæsthesia been given.

Case 29.—This was a complete failure, and, in my estimation, the patient could not be classed as hysterical, as she made every effort to control her emotions during painful manipulations. This patient was also, in intelligence, above the average of hospital patients.

In case 31 the effect was perfect, so far as anæsthesia was concerned, a matter of special importance in those cases where the operation is somewhat prolonged. The puncture and injection were effected in the usual manner; anæsthesia was obtained within ten minutes and extended to the nipples; the operation consisted of anterior colporrhaphy, repair of a lacerated cervix and complete laceration of the perinæum, with ventral suspension. The vaginal operations were all completed in one hour (a short time, I consider) with absolutely no evidence of pain on the part of the patient; but she became progressively more and more excited and had a constant fear of impending death, complaining of oppression about the heart. I asked her repeatedly whether she suffered any pain; she said "no," but always complained of the general bad feeling. This increased to such an extent that it became necessary to administer chloroform followed by ether. This patient's pulse was constantly high, 140, and small; respirations 36; there were marked pallor, cold skin, and copious perspiration; during etherization her pulse improved somewhat; after the anæsthetic was discontinued it became more rapid again. There were, I was told, no after-symptoms worth reporting.

About half of the patients had nausea and vomiting at times during the operation. Headache was intense in three patients, mild in three, and absent in five of the others; chills and muscular tremors occurred in five of these patients. The patient in case 30 had a pronounced chill attributed to malaria. The house surgeon has since reported to me that this patient had a lobar pneumonia with the crisis upon the sixth day. This makes the second patient in whom pulmonary symptoms developed following on spinal puncture and injection; the first patient was said to have had a pleurisy and bronchitis. I found, upon examining her, undoubted evidences of consolidation; she had pneumonia, of which the bronchitis and localized pleurisy were simply a part. Now, I do not wish it to be understood that in either of these patients I attribute the chest symptoms to the spinal puncture and injection, for I do not; but, since these patients had the entire back exposed and were subjected to the usual method of preparation for the spinal puncture, and then again for the preparation of the field of the operation, and since the operation itself, no matter how skilfully performed, is more or less depressing to the vital functions, and, last and least, since there is the barest possibility that the marked circulatory and respiratory depression due to the cocaine may all have been factors in the causation of the complications developed, I may repeat that I believe the undue exposure to have been the principal cause of the symptoms developed. If spinal anæsthesia has done nothing more, it should teach us that pulmonary and renal symptoms, developing after operations in which general anæsthetics have been employed, should not always be attributed to the anæsthetic. Pulmonary and renal complications have been extraordinarily rare in my experience, and a not inconsiderable experience either, in the administration of anæsthetics; in the very few instances in which these complications have occurred, I believe I could always establish a condition of undue and unnecessary exposure. Is it at all surprising that anæsthetized patients should have these complications, when healthy individuals do so simply from exposure to sudden changes in temperature?

NOW, A WORD OF WARNING. The possibility of extending the use of the method by making the injection into the cervical portion of the canal has recently been advocated and based upon the researches of Tait and Caglieri, of California (*Transactions of the Medical Society of the State of California,* April, 1900). These investigators base their observations on three cases in which one half and one cubic centimetre, respectively, of a one-and-one-half-per-cent. solution of cocaine in the first two cases were used, and produced anæsthesia in eight and five minutes, respectively; while in the third case, in which three cubic centimetres of a one-half-per-cent. solution were used, no anæsthesia was obtained after the lapse of one hour and twenty-eight minutes. The last patient complained of cephalalgia, intense heat over the entire body, copious perspiration, and slight vomiting. The following day, slight headache and weakness in the legs ensued. These investigators said that all the patients were examined weeks after the injection and were found free from possible complication. While it is perfectly true that the puncture of *nerve trunks* by a needle is harmless, I fail to find any authority for saying that the puncture of the spinal cord is or may be harmless. We know that the cord averages but one centimetre in diameter; to use the spinal puncture and injection in the cervical region, or any other above the second lumbar vertebra, means the introduction of a needle, not only into the subarachnoid space, but often the cord as well. Now, such a needle, no matter how fine, must do one of two things: it must either sever the fibres or push them aside, and, as some of the columns of the cord are probably no longer than the needle itself, severing them would always have to be considered as a possibility. The cord tissue, once severed, we are taught, never regenerates, and here the possibility of remote complications, such as ascending—or descending—degeneration, comes in. Remote complications following the puncture and injection below the termination of the cord I do not believe need be feared; this cannot be said to be the case anywhere above the upper border of the second lumbar vertebra. I hope that no one will have the temerity to make this puncture and injection above the site which Nature herself has invitingly established. I have no reason to alter my views regarding intraspinal injection of cocaine, that is, about its producing anæsthesia directly, and not by means of the circulation; the circulatory and respiratory involvement is by *direct action* of the drug upon the medullary centres. The injection of the cocaine in the cervical region would bring it to the medulla in a concentrated condition and quite within the bounds of the possibility of sudden death. Rash, indeed, would be the man who was willing to subject any patient to such a risk for the sake of an anæsthesia which could, in most instances, be neither longer in duration than by the lumbar route nor so extensive.

A little time and space for comparisons of the spinal and inhalation anæsthesia.

It has been said that in those cases in which, for any reason, a general anæsthetic must be administered where the spinal puncture and injection have been performed, it is surprising how quickly these patients are anæsthetized and subsequently regain consciousness. In the first place, these patients cannot be anæsthetized more rapidly than if they had not at first had cocaine; nor is consciousness more quickly regained, or the quantity of the anæsthetic lessened. We must be fair, and not accept as true that which is only apparently, but not actually, so. Is there any reason why a patient who has had an operation half finished with cocaine, and in whom chloroform or ether has then been substituted, should have used more than half the quantity that he otherwise would? Is it not a fact which all must admit who have used the spinal method, that these patients are shocked; and, further, is it not true that patients in a condition of shock require less quantities of anæsthetics than those in whom shock is absent?

To say that patients do not suffer from shock at all comparable with that from general anæsthesia is absolutely untrue. Only those who have seen patients in whom the lumbar puncture and injection have been performed, showing the extremely rapid and small pulse from 120 to 150 a minute, and at times suddenly falling to half that rate and becoming full; the rapid and shallow respiration; the ashy gray pallor and the, at times, slightly cyanosed condition of the skin, finger tips, and mucous membranes; and the profuse perspiration, can say whether this is true. If this is not shock, what is it? And it is a shock so great in its intensity that it can only be compared with very profound chloroformization; it is a condition of which one experience is quite sufficient; and these symptoms have occurred in the experience of those who have used the method and that extensively, with so small a quantity in some cases as one cubic centimetre of a two-per-cent. solution (one sixth of a grain of cocaine).

From the standpoint of time-saving, of preservation of consciousness, or of convenience, this method cannot commend itself in the vast majority of instances to either the patient or the surgeon in preference to general anæsthesia by either nitrous oxide, ether, or chloroform, properly selected and skilfully administered. That anæsthetics are not skilfully administered in all hospitals throughout the country is the fault purely and simply of the surgeon himself.

It has been said that the method might be useful in cardiac, pulmonary, and renal diseases, where a general anæsthetic is contraindicated. As the patients in whom the spinal anæsthesia has been employed often manifested at first an extremely small and rapid pulse, which was at times suddenly followed by a full, very slow pulse, it does not seem to me compatible with safety, particularly in cardiac or pulmonary disease where there is any tendency to venous congestion. That one of Tuffier's patients died of asphyxia and, upon autopsy, a pulmonary thrombus was found, can easily be explained by this marked circulatory depression. In renal disease, the method may be of value in preference to a general anæsthetic. It has not, however, been shown, as yet, that, even in such a case, cocaine itself might not prove deleterious. I have had one case of renal disease where the surgeon considered a general anæsthetic contraindicated; spinal anæsthesia was attempted, and after two punctures and injections aggregating half a grain of cocaine, anæsthesia failed to be induced, and chloroform was administered with no untoward results during or after the anæsthesia. There are few patients requiring surgical interference that cannot take one of three general anæsthetics if properly selected.

When we consider the manifold disadvantages of intraspinal anæsthesia and its few questionable advantages, we may well ask whether the use of the method, except in very rare instances, is not a step backward rather than forward.

225 West Forty-fifth Street.

THE DIAGNOSIS OF EMPYEMA IN CHILDREN.*

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In bringing before you the rather trite topic of the diagnosis of empyema, I shall speak solely from the clinical standpoint, and shall limit myself strictly to the discussion of this disease as met with in infants and very young children. This restriction seems to me quite justifiable, as the pleuritic affections of older children closely resemble those of adults, and I desire especially to call attention to the peculiar difficulties encountered in the examination of the very young subject. I shall exclude from consideration cases of traumatic origin, as not being likely to give the diagnostician much trouble.

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*Read before the Metropolitan Medical Society, November 27, 1900.

It is not so easy to account for the great frequency of empyema in young children. The extreme commonness of bronchopneumonia at a very early age may be a partial explanation; but I believe that some stress must be laid on unhygienic surroundings, unsuitable food, rhachitis, and so-called scrofulosis, as predisposing factors, the more so when we observe the relatively great number of cases in dispensary and hospital practice as compared with our better situated private patients.

One might hastily assume that empyema is, in a certain sense, the infantile equivalent of the serous pleurisy of adults; that, in other words, the pleura in the very young reacts more intensely to infective agents. We must, however, remember that pulmonary tuberculosis, the commonest cause of serous effusions, is relatively rare in young children, while bronchopneumonia and the exanthemata are extremely frequent. The above assumption is, therefore, not well supported by clinical facts.

I shall not dwell further on the ætiology of empyema, and, with reference to its bacteriology, shall only mention the relative frequency of streptococci and pneumococci, and the rarity of tubercle bacilli. Sterile exudates are regularly of tuberculous origin. The transition of a serous pleurisy into empyema is not so very unusual, and is still something of a pathological problem; it might be well to recall that serous effusion is not so uncommon in young children as is generally supposed, my own not very large experience including four or five cases.

Proceeding now to the subject in hand, that of diagnosis, our first difficulty will usually be the defective history of the case. Usually we are told that there has been a steady loss of flesh and strength attended with irregular fever. Sometimes we are informed of a preceding pneumonia or infectious disease, but this factor is usually referred to obscurely, or not at all; its absence has led many authors to speak of primary empyema as quite a frequent disease, while, as a matter of fact, it must be quite as rare as primary purulent inflammations of the other serous membranes.

Chronicity is often a marked feature, but has no particular diagnostic value, unresolved pneumonia being a matter of everyday experience. It seems hardly necessary to mention that it is perfectly useless, with children under six or seven years of age, to inquire as to the presence, localization or intensity of pain. Young children cannot localize pain, and in their psychic reaction to it differ surprisingly.

Speaking of localization, I may say in passing that there is no marked preference for either side, and that bilateral empyema is not very rare. Sacculation is met with, but far less often than in adults, since previous pleuritic attacks, with consequent adhesions, have usually not occurred.

The general appearance of the patient is often suggestive. While the prostration and emaciation may be equally great in other intrathoracic affections, the child in these cases often gives the distinct impression of sepsis in its earthy or waxy complexion, so different from the flushed face of pneumonia. Local inspection frequently shows relative retardation and diminution of the respiratory excursion on the affected side, occasionally obliteration or even bulging of the intercostal spaces. The apex beat may be displaced by a large exudate in the right pleura, but this symptom is much rarer than one might suppose. The books mention œdema of the chest wall and local redness as denoting a tendency to rupture externally; I have not seen a case that has advanced, or rather, been neglected, to this stage.

If the case is observed for any length of time, the temperature curve will usually be suggestive. While it may run quite high, still 104° F. will rarely be reached, unless there is a concurrent acute affection; and there are likely to be remissions with sweating. The pulse is disproportionately rapid and often of poor quality. The respiration is accelerated, labored and shallow, but does not usually assume the gasping, extremely hurried character of a severe bronchopneumonia.

In considering the physical signs obtained by percussion, I would first emphasize the importance of percussing very lightly in young children. Aside from exciting the fears of the patient by forcible blows, we are pretty sure to overlook small areas of dulness, and elicit resonance from nearby normal lung, or even the not distant abdominal viscera. I might also refer to the value of the tactile sense in noting the feeling of resistance which is characteristic of an effusion, and its use in obtaining information in spite of the various noises of a children's dispensary class. The employment of the pleximeter and hammer, so frequent abroad, is of course a grave error in physical examination, and that not only of children.

Percussion gives more or less dulness over the affected area, usually increasing downward; sometimes we obtain a tympanitic quality, but more rarely than in solid infiltrations. In the upper part of the thorax, we obtain more or less dulness or tympanitic resonance, according to the condition of the compressed lung. The upper line of fluid can hardly ever be so sharply mapped out in empyema as in serous effusion, owing to its irregular limitation by adhesions and the usual concomitant pneumonic infiltrations. The determination, by percussion, of small effusions, may be quite impossible. In empyema of the left side, dulness over Traube's space is very characteristic.

Auscultation fails to give as accurate and reliable results as in adults. We usually have bronchial breathing, sometimes hardly at all diminished in intensity, over the affected area; entire absence of respiratory sounds is very exceptional. It will be useful to remember that râles over the dull area speak decidedly against fluid, while faint and distant respiration denotes its probable presence. Friction sounds are exceedingly rare.

If the child is crying, as it usually is, we may obtain more information. The voice over a pleuritic exudate is almost always faint and distant, and increased vocal fremitus is the best auscultatory sign we have for excluding fluid. I need hardly mention that we cannot ask a very young child to breathe deeply, as we can an adult; and if the child happens to be in a good humor, it is not very easy, and hardly justifiable, to make it cry out. Those youngsters who hold their breath, taking in the physical examination with mute surprise, may give the examiner any amount of trouble.

Some of my hearers may wonder that I say nothing of ægophony; the reason is that I have observed it so often in pneumonia and so infrequently in empyema, that I have found this sign thoroughly untrustworthy in children, though undoubtedly very valuable in older subjects.

After the above rather superficial review of the physical signs of empyema, it would seem well to note a few points of diagnosis. I have referred to pneumonia so often that I need say no more on this topic, except to refer to those very numerous cases, generally the more recent ones, where both lesions coexist.

Here we generally find dulness on both sides, but are guided by the facts that the respiration is more markedly bronchial on the side where the dulness is less pronounced, and that râles, present elsewhere, are absent over the most resistant and least resonant area. In these cases the temperature curve will often tell us little or nothing; the appearance of the patient will be in no way characteristic.

The noninflammatory affections may usually be excluded by the absence of fever, but the most careful observer will be puzzled by a few conditions, of which I shall mention, first, hepatic, perihepatic and subphrenic abscesses; what adds to the difficulty of these cases is that they may readily be associated with a pleuritic effusion, in which event our diagnostic skill will be taxed to the utmost and often fail.

In the second place, I must mention pulmonary abscess and gangrene. I can best give an idea of the difficulties we may encounter by recalling the not very rare cases where an empyema ruptures into a bronchus, or where a pneumonia is followed by pulmonary gangrene. Our troubles are increased by the fact that very young children rarely expectorate, and thereby deprive us of the test that we find most useful of all in the adult, the examination of the sputum. In passing, I may refer briefly to the fact that intrathoracic tumors, while usually febrile, may occasionally be associated with a low, septic type of fever, and give rise to much difficulty in diagnosis if their outline is not very atypical.

As a summary of what I have stated so far, it is needless to mention that our ordinary physical methods are all more or less unreliable in the empyema of young children, and that we can never feel certain of our diagnosis after employing them alone. Let us then pass on to our most valuable resource, exploratory puncture.

I shall not weary you by detailing the method of performing this little operation, which must be familiar to you all; but shall merely refer briefly to its good and bad sides. The former are unquestionable. We rarely have to puncture repeatedly, as sacculation or excessively thickened pleura is comparatively infrequent. It is well to remember that abstraction of clear, or nearly clear, serum does not absolutely exclude empyema, as the leucocytes have a tendency to gravitate to the lower layers of the fluid, where for anatomical reasons it is not desirable to aspirate.

As to the risks of exploratory puncture, so often alluded to, a few words will suffice. Ordinary, very ordinary, surgical cleanliness is a sufficient guarantee against introducing septic infection, the change of a serous exudate into a purulent one being, as noted above, often only in appearance; in other cases it occurs spontaneously; we must remember that every pleurisy is, after all, the result of an infection. As to puncture of the lung, this is of course unavoidable if effusion is absent, but the danger seems to me quite imaginary; in fact, in one or two unresolved pneumonias in my own experience, the slight traumatism seemed to start resolution, and I have still to see harm result from the procedure. If an exudate is present, puncture of the lung is usually avoided by selecting the area of greatest dulness and feeblest respiratory murmur, and by not using too long a needle.

While I feel that I have not nearly exhausted this interesting subject, and have introduced nothing new, still I may offer as my excuse for this paper, that the above clinical review of empyema in the very young is not usually given by most text-books, in which, as one critic has well said, all children are over two years of age.

173 East Seventieth Street.

A REPORT UPON ONE HUNDRED AND SEVENTY CASES OF APPENDICITIS.*

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The following list of 170 cases of appendicitis comprises all of the internal cases and acute cases without abscesses that I have operated upon up to the present date. There are excluded from the list three patients who are still in bed; two cases of tuberculous peritonitis in which I operated on the supposition that the appendices formed the focus of infection, but did not remove the appendices on finding that they were not particularly involved; one case of loose kidney in which the abdominal tenderness interfered with accurate palpation and the mistake was discovered when the abdomen was opened; one case of hysteria in which the patient had learned to recite the symptoms of appendicitis and in which the abdominal wall was so tense that I could not palpate; one case of concretions of the appendix in which the concretions were simply pushed through into the cæcum, as the appendix was apparently perfectly normal and was not removed. These cases, operated upon because a diagnosis of appendicitis had been made, are excluded from the list for the reason that the appendices were not removed. All of the excluded patients recovered.

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* A paper read before the meeting of the Society of the Alumni of Bellevue Hospital, New York, February 7, 1890.

The list includes one case of pneumonia, with severe localized pain, referred to the right iliac fossa on the first day of infection. The appendix in this case was adherent to an old infected Falloppian tube, but was found to be normal after it was removed. Two cases of what I may term dislocation of the appendix, in which the appendices were so twisted upon their long axes that they contained benign mucous inclusions; one case of old typhoid perforation of the bowel, in which the appendix was included among adhesions, but was found to be normal when it was removed; two cases of tuberculous peritonitis, in which the appendices were thought to form the focus of infection, but were found to be normal after removal. These cases are included in the list because the appendices were removed.

My cases of appendicitis with abscess were reported at a former meeting of this society, and the present list includes only acute progressive cases before the advent of acute abscess, cases that were operated upon in the interval between attacks, and the included cases before noted in which the appendices were not infected.

It is difficult to draw a line closely in the classification of cases, because some of the abscess cases reported in my previous paper were cases in which the abscess contained sterile pus, and these, to my mind, did not present the dangers that were presented in most of the acute progressive cases of the present list; but, in order to make a separation of cases for report, I have made an arbitrary classification upon the absence or presence of abscess or of septic peritonitis with exudate in the peritoneal cavity, which is equivalent to abscess.

Of these 170 cases without abscess, there were 126 males and 44 females. Between the ages of one and ten years, one case; from ten to twenty years, thirty cases; twenty to thirty years, eighty cases; thirty to forty years, thirty-eight cases; forty to fifty years, eighteen cases; fifty to sixty years, three cases, and sixty to seventy years, one case. This shows very well the diminishing proportion of cases of appendicitis after the patient has reached the age of forty years, which has been pointed out by Ribbert, Senn, and others, as due to a normal involution process that takes place in the mucosa and lymphoid layer of appendices after patients reach middle life. This involution process commonly leaves the appendices devoid of mucosa and lymphoid layer. Seventy-five of the cases were progressing acutely at the time of operation. There were ninety-five interval cases.

I operated upon all of the acute cases at the earliest possible moment after the diagnosis had been made, and there was no selection of cases for operation. In the interval cases, I operated only when palpation of the appendix gave sufficient objective testimony in addition to the history of subjective symptoms as detailed by the patient or his physician.

In many cases that were sent for operation as interval appendicitis cases, I made a different diagnosis and did not operate.

One hundred and twenty of the cases were operated upon through the inch-and-a-half incision, or through a shorter incision; of these, fifty-nine were acute cases and sixty-one were interval cases.

As an incidental note, I have operated upon a large number of cases with abscess through the inch-and-a-half incision, but I do not teach the advisability of this procedure unless one has become sufficiently expert to feel sure that in any given case it is a safe procedure. Argument has been made that the short incision is dangerous, but all of these patients recovered from the operation as did all of the other patients in the list. This sufficiently answers the argument against the short incision being dangerous. As to the difficulty of the short incision, that depends entirely upon the operator. Men who are accustomed to adhesion work and are well trained in working by the sense of touch, find that their experience is like mine in the ease with which the appendix is separated from adhesions and removed through a short incision. Some operators who objected to the short incision at first, have now done more of these operations than I have done myself.

It is said that the short incision is not well adapted to cases of appendicitis with adhesions, but, in fact, few of these cases are sent to me until they have adhesions, often of the most complicated type.

I regret not to have kept a record of the cases in which it was necessary to enlarge the incision after I had started out with the short incision, but my assistants at the hospital cannot recall more than one or two such cases, and, I think, that in not more than half a dozen instances has the incision been enlarged, excepting in cases with abscess.

I use the blunt dissection method advocated by Dr. McBurney and Dr. McArthur. As a matter of fact, I took up the blunt dissection method before these authors had described it, but gave it up as impracticable. After the publication of their experience, I again adopted the blunt dissection method, and now use it in practically all my appendicitis cases with either the long or short incision. The advantages of the short incision are the rapidity with which the patients recover, the trifling amount of scarring, and the avoidance of abdominal hernia. Most of the patients are out of bed and out of the hospital by the ninth or tenth day after operation.

Objection has been made that a longer time is required for operating through a short incision than through a longer one. This was true of some of my earlier cases, but I have asked the class to time me at operations at the college, and I find that the average length of time expended on the intraperitoneal work averaged twenty minutes, no matter whether adhesions or pus were present or not. By intraperitoneal work I refer to the work done within the abdominal cavity after the peritonæum has been opened, and up to the moment when the peritonæum is closed. This represents the time in which the patient is sustaining the chief disturbance incident to the operation, and I do not count the time spent in suturing, as that is of little consequence to the patient. There were fifty cases in which I employed an incision longer than one inch and a half; sixteen of these were acute cases, and thirty-four interval cases. The long incisions were chiefly among my early cases, in which I regularly made the common long incision of that date. The list also includes fleshy patients and others in whom it happened to be easier to work through the longer incision. One should make as long an incision as one needs. Many of the cases that I include in the long incision list were operated upon through an incision not more than two or three inches in length. In twenty-nine cases of the entire list the appendices contained concretions—fœcal, phosphatic, fatty, or with two of these elements combined. There were no foreign bodies in any of the appendices. Mucous inclusions were found in about eighty per cent. of the cases. I regret that records of mucous inclusions were not kept in the earlier cases in my history books, and my estimate on percentage is made from a consecutive series of fifty cases in which records of this condition were kept.

After a patient has had one or more attacks of acute appendicitis, a scar stricture forms which is similar to a stricture of the urethra. In some of the cases it was complete, and there were sometimes two or more complete mucous inclusions in one appendix. In other cases, the scar stricture made only a partial occlusion of the lumen of the appendix, but was recognized as a definite defect.

In three of the cases entozoa were found. These were small nematodes which were evidently the cause for the ulceration of the mucosa of the appendix. It may be that entozoa would have been discovered in other cases if I had looked closely for them. No record was kept of the cases in which there were found soft, unformed fæcal contents, although I have lately come to believe that a good many attacks are excited by the attempt of the appendix to empty itself of soft fæcal contents. There was one case of cancer of the appendix. There were eight cases of tuberculosis of the appendix, and in most of these the tubercles had extended out upon the peritonæum of neighboring structures. Dr. Fowler, of Brooklyn, in a discussion upon the subject, expressed surprise at my large proportion of cases of tuberculosis, and it is evidently one of these curious coincidences in which one will have an unusually large group of cases of one particular type. In five of the cases of tuberculosis, the patients are believed to have recovered from the tuberculosis of the peritonæum. In one case in which the tuberculosis involved little more than the appendix, the patient developed an acute miliary tuberculosis subsequent to operation, and both lungs were extensively involved. The patient was a brother of a physician who applied vigorous creosote treatment in the case, and the patient is now thought to be entirely well. In one of the cases which I believed to have recovered from the tuberculosis of the peritonæum, the patient died two or three years later with symptoms which indicated that there was recurrence of tuberculosis of the peritonæum. Another patient, who undoubtedly recovered from the tuberculosis of the peritonæum, exposed herself to inclement weather as an officer in the Salvation Army, and developed general miliary tuberculosis more than a year later. This death does not properly belong to this report or to this series of cases.

So far as I know, there are only two postoperative hernias in the entire series of 170 cases. One of these was repaired by Dr. Coley in a case that did not recover from tuberculosis; the other one is very small, not progressive, and the patient does not care to have the opening closed. It is not possible to follow all our cases subsequently to operation, but the patients were almost altogether of the private patient class, and were asked to report upon any postoperative complications.

There are a good many cases in which the patients are still disturbed by adhesions which were present at the time of operation—an argument in favor of early operation. There are no cases to my knowledge in which the patients suffer from adhesions dependent upon the operation.

At a society meeting recently, I stated that more physicians had come for operation in the early stages of appendicitis, or in the interval stages, than in cases in which abscesses or late complications had appeared; but in going over the records for this report I find that the proportion is about the same in both classes of cases. There were thirteen physicians and several members of physicians' families in this list of 170 cases, and about the same proportion in the abscess group of cases. All the 170 patients recovered from the operation, and almost all the short incision patients were out of bed before the tenth day.

58 West Fifty-sixth Street.

Small-pox.—According to recent reports from Winona, Minn., there were 900 cases of small-pox there, and steps were about to be taken to have the place quarantined.——The vaccination records of New York City were broken during the recent small-pox scare, for more persons were vaccinated in Manhattan Borough then in one week than were vaccinated in the entire period of the outbreak in 1894, which lasted nearly six weeks. The demand for vaccine virus by physicians, to use in their private practice, exceeded all demands in previous years. ——At Custer, Mason county, Mich., more than 100 cases were found in a village of 300 inhabitants, and it is believed that every house in the village has been infected.

Therapeutical Notes.

For Delayed Uterine Involution.—The *Clinical Review* for December says that a combination of ergotin, hydrastinine and strychnine, in such proportions as indicated by the case, is of marked value in tardy uterine involution following labor. The drugs are well taken in tablet form.

For Neurasthenia.—Professor Lemoine (*Nord médical,* November 15th) makes use of the following method, giving every two days a subcutaneous injection of from 30 to 75 grains of the following solution:

℞	Phosphate of sodium	45 grains;
	Chloride of sodium	30 “
	Boiled water	1,500 “

M.

This dose of the phosphate, though very weak, often acts with great rapidity when thus administered. Depression is even replaced at times by exaltation.

Manec's Caustic Application.—*Presse médicale* for November 14th gives the following as the formula:

℞	Arsenious acid	30 grains;
	Sulphide of mercury	90 “
	Calcined sponge	180 “

M.

The paste is spread upon the skin and covered with a piece of amadou. At the end of fifteen days the eschar falls off. The remedy causes an active inflammation, however.

Freezing with Ethyl Chloride in the Treatment of Lupus.—Dethlefsen (*Hospitals-Tidende,* 1900, No. 1; *Deutsche Aerzte-Zeitung,* November 1st) reports a case of lupus vulgaris in which, after curetting the ulcerations, he froze the affected parts by spraying them with ethyl chloride every second day and keeping them frozen for a minute or two. Immediately after each freezing, there was great swelling, with redness, which persisted until the next day; then shrivelling and decoloration were observed. After six freezings, in the course of twelve days, all the ulcers were healed.

A Formula for the Administration of Tannin in Bright's Disease.—The *Petit moniteur de la pharmacie* for September 28th publishes the following:

℞	Tannin	60 grains;
	Extract of aloes	22½ “
	Excipient	sufficient to make 120 pills.

M.

Four may be taken daily.

The Treatment of Impotence.—Mendel (*Therapie der Gegenwart,* July; *Centralblatt für innere Medicin,* November 24th) remarks that mechanical impotence belongs in the domain of surgery, and so do cases in which it is due to irritation of peripheral sensory nerves by foreign bodies, such as stone in the bladder. In neuritic affections, such as are found in diabetes, albuminuria, and alcoholism, also in diseases of the spinal cord, the fundamental morbid conditions must be treated. When impotence is due to irritability and weakness, coitus must be forbidden for a period of six months. Next in importance is regulation of the diet. Alcohol, nicotine, and all exciting drinks, such as tea and coffee, also spiced articles of food, must be interdicted, and nitrogenous food should be allowed only once a day, at dinner, but milk, vegetables, and fruit may be taken in abundance. Galvanization of the lumbar portion of the vertebral column, with the use of the faradaic brush on the genitals, may be tried. The passage of the cold sound is risky. Cantharides, phosphorus, strychnine, cocaine, and Poehl's spermine are useful in some cases. "Johimbin" (whatever that may be) has given the best results in the author's hands, from five to ten drops three times a day. In hypochondriacal cases suggestion often works very well.

Formulæ for the Use of Chloralamid.—Dr. S. V. Clevenger (*Medical News,* October 8th) gives the following formulæ:

℞	Chloralamid	2 drachms;
	Whiskey	1 ounce;
	Syrup of raspberry	1 ounce.

M. Sig. Half-teaspoonful dose.

Lettow's prescription for an enema is:

℞	Chloralamid	45 grains;
	Hydrochloric acid	2 drops;
	Alcohol	15 minims;
	Water	3 ounces.

A solution made with twelve grains in two drachms and a half of water may be used hypodermatically when such disorders as rectal carcinoma deprive a patient of sleep.

The usual dose of chloralamid is from fifteen to sixty grains half an hour before bedtime. It takes effect usually in one hour. One dose has sufficed to secure sleep on a subsequent night as well as upon the night when used. The German *Pharmacopœia* mentions sixty grains as the largest single dose and one hundred and twenty grains as the largest daily dose.

For Black Eyes.—Dr. W. B. Parsons (*St. Louis Medical Era,* November) gives the following:

℞	Tincture of capsicum, Mucilage,	of each . . . 4 drachms;
	Glycerin	½ a drachm.

M.

To be painted on the part every three to six hours. The absorption of the extravasated blood, however, Dr. Parsons has found to be best effected by applying one electrode of a constant-current battery over the swollen lids, the other being applied to some indifferent spot (nape of the neck, hand). The electrodes are, of course, to be covered with sponge (or wash leather) and soaked in warm water, plain or weakly salted. Dr. Parsons recommends to begin with twenty cells, increasing to twenty-four or twenty-six. [It is not to be forgotten, however, that strong currents to the head are not altogether devoid of danger—while the current strength from different kinds of cells varies. We cannot recommend the application of electricity to the head or face without the guide of a milliampèremeter. The current is best turned gradually on from zero without break to five or ten milliampères, which is all that is wise.]

Resorcin in Rodent Ulcer.—Dr. H. Bowen Williams writes to the *British Medical Journal* for December 1st of the case of a woman, aged seventy years, suffering from a rodent ulcer on the left side of the nose for twelve years. He says: "The powdered resorcin was first applied daily, but, as this became painful, on alternate days. Soon an improvement took place. The sore gradually became more healthy-looking; portions of it sloughed; it became smaller and shallower; its shape from being irregular became circular; and finally it healed up entirely. This took place after the application had been in use for two months. It has now been apparently soundly healed for over a month, with, of course, some contraction of the tissues."

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THE DROWSINESS OF JAUNDICE.

THE somnolence that is sometimes observed in jaundiced persons attracted the attention of two French investigators, A. Gilbert and J. Castaigne, while they were engaged in a study of the nervous complications of cholæmia. They therefore gave it some special attention and reported upon it at a recent meeting of the Society of Biology. A résumé of their observations is given in the *Journal des praticiens* for November 17th. They cite such authors as Murchison and Léopold Lévi as noting the possibility of a special somnolence *ab hepate læso,* but as considering it a rare symptom and one not worthy of much attention unless it takes the extreme form of narcolepsy or hepatic coma. Our two investigators dissent from this. According to their observations, simple somnolence is one of the commonest symptoms of certain forms of cholæmia and particularly of cholangeitis and biliary hypertrophic cirrhosis.

In the cases under consideration the patients sleep well at night, remaining in bed ten or eleven hours. When they awake they seem thoroughly aroused, but as soon as they have had their midday meal they go to sleep immediately upon sitting down. The most determined of them can resist sleep only by great efforts, and even they remain drowsy and incapable of thought, and finally yield to sleep. The features of icteric somnolence, the authors remark, are very similar to those of the drowsiness observed in certain dyspeptics, but the physical and functional condition of their patients' stomachs was such as to lead them to reject the hypothesis of a gastric pathogeny. The fact that this somnolence is oftener observed in patients affected with cholangeitis or biliary cirrhosis than in other subjects of hepatic disease has led them to suppose that perhaps the toxine of the colon bacillus, the somniferous action of which is beyond doubt, is to be taken into account; but the fact that the somnolence is observed in cases in which all idea of a bacillary infection is out of the question has induced them to discard this supposition.

Hepatic insufficiency has commonly been invoked to explain hepatic somnolence and narcolepsy, but our authors' observations have led them to the opinion that, leaving narcolepsy and coma out of consideration, what they call the *petite somnolence hépatique* is no sign of hepatic insufficiency. Their belief is that cholæmia, the presence of the elements of bile in the blood, accounts for the existence of the somnolence. The quantity of pigments in the circulation does not seem to play a prime part, for in some of their drowsy patients there was but a minimum of biliary constituents in the urine. To the possible objection that not all jaundiced persons are drowsy, Gilbert and Castaigne reply that jaundice is not always accompanied by pruritus, and yet nobody will deny the rôle of biliary pigments and salts in the production of pruritus. Cholæmia on the one hand and a nervous predisposition on the other explain, in their opinion, the ætiology of the drowsiness of jaundice.

IS THE WIDAL TEST TO BE RELIED UPON?

MOST clinicians, to say nothing of the bacteriologists and laboratory workers, look upon the Widal blood test for typhoid fever as thoroughly trustworthy, and have granted it a place among the routine clinical examinations, such as that of the urine for albumin, of the blood for the malarial plasmodium, etc. But can it be relied upon in the diagnosis or exclusion of typhoid fever? It is recognized that in a certain small percentage of cases of typhoid fever the Widal reaction is absent throughout the entire course of the disease. It is much more difficult to prove the opposite, that a case is not one of typhoid fever, even though the Widal reaction is present. Such cases are usually ephemeral and nearly always end in recovery; so that if the blood shows the looked-for reaction, they are confidently diagnosticated as "mild" or "abortive" typhoid, without fear of contradiction. The Widal reaction is due to an increase in the bactericidal power of the blood serum against the typhoid bacillus. But the possibility that in some cases of simple ephemeral fever the normal bactericidal power of the blood may be increased should always be borne in mind. It is held by most authorities that if blood diluted twentyfold has the power of killing the typhoid bacillus, it must come from a person who has or has had typhoid fever. The routine practice of the Widal test, by the dried-blood method, is based upon this belief. Yet Wright (*Lancet,* December

1st), by an exceedingly exact and accurate method for determining quantitatively the bactericidal power of the blood, found that, in fifty healthy individuals, the blood of twenty-five (fifty per cent.) killed the typhoid bacillus, when diluted twentyfold. In fifteen per cent. the bactericidal effect was complete even with a fortyfold dilution. The possibility must, therefore, be admitted that in some of the cases of so-called "mild typhoid" the Widal reaction may be due simply to the patient's blood having high bactericidal power in health; *i. e.*, that such cases are not typhoid fever at all.

Wright has also investigated the modifications in the bactericidal power of human blood produced by additions to that blood *in vitro* of specific antityphoid sera. Two such sera were purchased; it was found that even quite small additions of these sera to normal human blood brought about a complete, or all but complete, abolition of the normal bactericidal power of the blood. In other words, the introduction of such sera into the circulation in cases of typhoid fever would do harm rather than good. Further experiments are called for, and they may throw an important light on the utility or injuriousness of various other therapeutic sera; in particular, of certain antistreptococcus and antiplague sera.

A NEW FORM OF MEDIAN CYSTOTOMY.

At a recent meeting of the Royal Medical and Chirurgical Society of London (*Lancet*, December 1st) Mr. W. G. Spencer described a method of median perineal urethrotomy and cystotomy which he had followed in a number of cases of deep urethral stricture and in certain exceptional instances of stone in the bladder in which neither lithotrity nor suprapubic cystotomy was suitable, the bladder being sacculated and contracted. "The operation," says the *Lancet's* report, "consisted in making an incision superficially across the perinæum through its central point, with the ends curving backward toward the ischial tuberosities on either side of the anus. The perineal and bulbar arteries on each side were then clamped and the external sphincter was detached from the central point, the lower end of the rectum being drawn well backward. The urethra was next opened exactly along the middle line back to the prostate, so that the neck of the bladder was reached without any tearing." Rapid healing is said to have followed, so that within a day or two urine passed through the penile urethra, and after a week or ten days no more urine escaped by the perinæum. "Moreover," says the account, "when the patient's legs were brought down from the lithotomy position the edges of the skin wound naturally came together in the fold."

The advantages attributed to the operation by Mr. Spencer lie in the preliminary arrest of hæmorrhage, drainage of the vesical pouch behind the prostate, and the prevention of injury to the rectum by its being first retracted. He says it is very similar to a method described by Celsus, but the Celsian operation, unless we are much mistaken, was by a median perineal incision straight down to the calculus, which was pressed down upon the perinæum by the fingers inserted into the rectum, and was formerly known as the "apparatus minor," or "cutting on the gripe." To judge from the description, Mr. Spencer's operation differs little from the Allarton median lithotomy, save in the transverse superficial incision and the discission of the sphincter ani from the perineal body. One's first impression would be that such procedures would favor the formation of a cavity in which the discharge might easily become pent up, but it is results that we must finally judge by, and Mr. Spencer's cases seem to have justified the employment of the method.

A GOOD WORD FOR THE CORSET.

Women in general are so wedded to the corset that we are glad, for their sake, to give currency to even negative testimony calculated to palliate its use. In the December number of the *Edinburgh Medical Journal* Thomson cites Trekaki, of Alexandria, as having found that forty-two per cent. of a number of Arab women examined by him, "a higher percentage than is found in European women," had a kidney freely movable, although the Arab women wear no corset, girdle, or any form of dress likely to occasion displacement of the kidney.

MEDICAL BOOKS AND CIRCULATING LIBRARIES.

Concerning the purpose said to be entertained of adding medical books to a circulating library in Detroit, it may be remarked that even a circulating library need not allow all its books to circulate. Medical books may properly be added to miscellaneous public libraries, but they should, we think, be restricted as to their accessibility to the general public, and certainly not be circulated promiscuously.

DISMISSAL FROM A HOSPITAL HOUSE STAFF.

The recent dismissal of a young physician from the house staff of the Roosevelt Hospital is an occurrence which, whatever may be the merits of the case, is to be regretted. It is understood that in this instance the young man had nearly completed his term of service, and we are not given to understand that he had committed a grave offense, but only such an offense, we think, is ordinarily a sufficient cause for summary action.

ALLEGED CRUELTY TO PATIENTS IN BELLEVUE HOSPITAL.

A RECENT death in the insane pavilion of the hospital is alleged in the newspapers to have been due to violence on the part of certain attendants. Commissioner Keller has promptly set on foot a searching investigation of the facts in the case, and the full truth of the matter will doubtless soon be brought out. It is no more than fair to say that there are men of unassailed probity and having an intimate acquaintance with the management of the pavilion who are slow to admit that the occurrence was necessarily one involving cruelty.

TYPHOID CYSTITIS.

IT seems that purulent inflammation of the bladder is to be included among the occasional sequelæ of typhoid fever. Hans Curschmann (*Münchener medicinische Wochenscrift,* 1900, Nos. 41 and 42; *Wiener klinische Rundschau,* November 11th) reports three cases that came on during either defervescence or convalescence and lasted from six weeks to four months, the cystitis pursuing a mild course and the urine remaining acid. The bacillus of typhoid fever was found in the urine and continued to be recognizable after the inflammation had fully subsided.

ÆSTHETIC ANTISEPSIS.

IT is not easy to make out whether a *feuilletoniste* who signs himself "Dr. Minime," writing in the *Journal de médecine de Paris* for October 21st, is serious or humorous when, having declared the moustache a monstrosity of microbic contamination, he cites Oscar Wilde as having done good service by favoring a clean-shaven face, credits President McKinley and Lord Rosebery with shaving out of regard for hygiene, and even goes so far as to make the declaration that the assassin Bresci has given the deathblow to moustache-wearing sovereigns, apparently forgetting the German emperor. He gravely warns women that the kiss of a man with a moustache, however pleasant it may be, is highly dangerous.

SUBLINGUAL DIPHTHERIA.

THE manifestation of diphtheria on other mucous surfaces than that of the throat is not very uncommon, but it must be quite rare for it to be found in the mouth without implication of the throat. Such a case is reported by Fentem in the December number of the *Edinburgh Medical Journal.* The diphtheritic patch was situated beneath the tongue, and the diagnosis was confirmed bacteriologically. The fauces and the soft palate were reddened, but quite free from false membrane.

News Items.

Society Meetings for the Coming Week:

MONDAY, *December 24th:* Medical Society of the County of New York; Lawrence, Massachusetts, Medical Club (private); Cambridge, Massachusetts, Society for Medical Improvement; Baltimore Medical Association.

TUESDAY, *December 25th:* New York Dermatological Society (private); Metropolitan Medical Society, New York (private); Buffalo Academy of Medicine (Section in Obstetrics and Gynæcology); Richmond, Virginia, Academy of Medicine and Surgery; Boston Society of Medical Sciences (private).

WEDNESDAY, *December 26th:* New York Academy of Medicine (Section in Laryngology and Rhinology); New York Pathological Society; New York Surgical Society; American Microscopical Society of the City of New York; Auburn, New York, City Medical Association; Berkshire, Massachusetts, District Medical Society (Pittsfield); Philadelphia County Medical Society.

THURSDAY, *December 27th:* New York Academy of Medicine (Section in Obstetrics and Gynæcology); New York Orthopædic Society; Brooklyn Pathological Society; Brooklyn Society for Neurology; Roxbury, Massachusetts, Society for Medical Improvement (private); Pathological Society of Philadelphia.

FRIDAY, *December 28th:* New York Clinical Society (private); New York Society of German Physicians; Yorkville Medical Association, New York (private); Philadelphia Clinical Society; Philadelphia Laryngological Society.

SATURDAY, *December 29th:* New York Medical and Surgical Society (private).

The New York Academy of Medicine.—At the last stated meeting, on Thursday evening, the 20th inst., the election of officers for the ensuing year took place, and Dr. Max Einhorn read a paper entitled Remarks on Enteroptosis.

At the next meeting of the Section in Laryngology and Rhinology, on Wednesday evening, the 26th inst., the following papers will be read: Memoriam of the Late Dr. Rufus P. Lincoln, by Dr. D. Bryson Delavan; Papilloma of the Larynx, by Dr. Francis J. Quinlan; and Nasal Suppuration, by Dr. Z. L. Leonard. Cases will be presented and new instruments will be exhibited.

At the next meeting of the Section in Obstetrics and Gynæcology, on Thursday evening, the 27th inst., the following cases will be reported, with exhibition of specimens: A case of congenital hypertrophy of the cervix, complicated by bilateral pyosalpinx, in a girl seventeen years old—vaginal hysterectomy, by Dr. A. Brothers; ruptured interstitial pregnancy, by Dr. L. J. Ladinsky; multiple myomectomy for fibroids, and vaginal hysterectomy for complete prolapsus of the uteri, by Dr. George Gray Ward, Jr. Dr. J. A. Schmitt will read a paper on The Use of the Pacquelin Cautery in the Uterine Cavity.

New York City Hospitals Condemned.—The November Grand Jury, in its recent presentment, declares that the delay in opening the new Gouverneur Hospital, so much needed in the lower east side, is "due to the division of authority and responsibility which has characterized the work from the beginning, and which seems still to be in evidence." In connection with the Harlem Hospital it says: "Commissioner Keller stated that the existing building in use and known as the Harlem Hospital, at the foot of East 120th Street, was a burning disgrace to the city, on account of the inadequacy of its size as compared with the requirements of that portion of the city, the age of the building and its non-adaptability for hospital service. He further stated that he had approved a site for a new hospital, more centrally located than at the foot of East 120th Street, and urged that the attention of the proper authorities be called to the great necessity of an appropriation sufficient in amount to purchase such a site and erect the building. The Grand Jury concurs in the views thus expressed, and declares that an enlarged and suitable Harlem Hospital is a public necessity."

Health Ordinance Ineffectual.—A woman in Rochester, whose children were recently stricken with diphtheria, refused to allow the health inspector to take a culture from the throat of one of the invalids. She was arrested and charged with a violation of the ordinance relating to contagious diseases, and the judge in discharging her took the ground that the ordinance was ineffective and that no convictions could be obtained unless it was amended.

Practising Medicine at Ninety-eight Years of Age.—Dr. John P. Wood, of Coffeyville, Kans., who will be ninety-eight on January 2d, is still actively engaged in the practice of medicine. He graduated from the Transylvania Medical College of Kentucky in 1824, and has continued to practise ever since. Another aged practitioner is Dr. Charles F. Willgohs, of Doylestown, Pa., who has just celebrated his ninety-fifth birthday.

A Deadlock in Prosecutions in Detroit.—Owing to a difference of opinion between the superintendent of police and the prosecuting attorney, no progress is being made in the prosecution of physicians charged with the illegal practice of medicine in Detroit. The Michigan board of health is much concerned about the matter, and will press the police to exert themselves. One case, however, has come to trial, and the defendant, Dr. John W. Barnes, has been fined $80. He says that he will appeal to a higher court.

Streets not to be Closed to Benefit Invalids.—The right of the health board of Washington, D. C., to authorize the obstruction of public streets on account of the presence of persons seriously ill in the vicinity, was questioned recently, and the opinion of the attorney of the District being unfavorable, the health officer has recommended that the issue of permits for such obstruction be discontinued, at least until Congress shall have made provision therefor.

Denver Workmen to have Greater Breathing Space.—The health department of Denver, Col., has ordered a systematic investigation of the business houses of the city, to learn whether the city ordinance governing employees is being violated. Each employee is entitled to 700 cubic feet of breathing space, and good light is also compulsory, but it is alleged that many employers are utterly regardless of the law.

A Mammoth Sanitarium on Muskegon Lake.—A leading physician of Muskegon, Mich., has purchased a tract of land consisting of fifty-seven acres on the north side of Muskegon Lake. He proposes to erect a mammoth sanitarium on the property, which is admirably situated, and will make a specialty of treating nervous diseases. The grounds surrounding the sanitarium will be converted into a large park.

Hospital Staff Changes.—Dr. Frank E. Gibson has resigned his post as senior resident physician at the Garfield Hospital, Washington, D. C., to enter private practice. His successor is Dr. H. C. Macatie. Dr. L. H. Reichlederfer and Dr. Charles A. Ragan have become junior resident physicians at the same hospital.——Dr. Frank H. Knight has been appointed to the medical staff of Sloane Maternity Hospital.——Dr. Rolfe Floyd, who for two years has been connected with Roosevelt Hospital, has left that institution. Dr. Floyd is a nephew of Professor Francis Delafield, one of the visiting physicians at the institution. He was the house physician. His term of office would have expired on January 1st.——Dr. Henry Heiman, of New York City, has been appointed adjunct visiting physician to the children's department of the Mount Sinai Hospital.——Dr. M. C. Warren, resident physician at the Reading (Pa.) Hospital, has resigned to accept the same position at the Jefferson Hospital, Philadelphia.

Location of the Tuberculosis Hospital.—The report of the board of trustees of the State Hospital for the Treatment of Incipient Pulmonary Tuberculosis was forwarded recently to the secretary of the New York State board of charities. After much consideration a site has been decided on at the west end of Lake Clear, Franklin county. This site, though, is subject to the approval of the State board of health and the Forest Preserve Board, which has not as yet been forthcoming. The site, if accepted, will cost $10,000 or $12,000, and the entire cost of building and equipping the hospital will probably amount to $200,000. The plans are being prepared by the State architect, and it is hoped that the building will be ready by November or December of 1901. The citizens of Clinton county are making strenuous efforts to have the hospital located at Dannemora, and considerable feeling is being developed in the respective localities which desire to secure the location of the hospital.

A Typhoid Fever Epidemic.—Typhoid fever has become epidemic in Cementon, a town on the Lehigh River not far from Allentown, Pa. Out of 200 families composing the population, there are one or more cases in 118 families. There have been several deaths in the past two weeks, and the condition of many patients is extremely critical. There have been only two physicians in the town. Their exertions night and day have overtaxed their strength and both have collapsed. One other physician has been coming there from Slatington and the situation appeals most strongly to outside help. The cause of the epidemic is believed to rest with the town's water supply.

A Protest from the Kalamazoo Academy of Medicine.—A protest has been made by the Kalamazoo (Mich.) Academy of Medicine against the action of the State Board of Health in asking for the resignation of the secretary of the board, Dr. Henry B. Baker, and resolutions were passed requesting that he be retained in office.

The Denver College of Medicine Alumni Society held its annual meeting at Denver on December 9th. The meeting was followed by a banquet given by Dr. A. R. Seebass, president of the society.

The Military Medical Academy of St. Petersburg will soon issue a jubilee book under the editorial charge of the president of the academy, Professor V. V. Paschoutine.

Burning of a Hospital.—The hospital attached to the convict farm at Milledgeville, Georgia, has been burned down.

The Italian Sanatorium for Consumptives.—The Italian parliament has decided to establish a sanatorium for consumptives of the indigenous class in memory of the late King Humbert I.

Dr. Kostenitch, professor of ophthalmology in the University of Warsaw, has been transferred to the corresponding chair in the Clinical Institute of the Grand Duchess Helen Pavlovna in St. Petersburg.

Russian Women Medical Students show a marked preference for Monpellier as a centre for medical study. This year there is a whole colony of them, numbering sixty members, at the ancient university.

College of Physicians and Surgeons Graduates Dine.—The graduates of the class of '90 of the New York College of Physicians and Surgeons held their first decennial dinner at the New York Athletic Club's house recently. Dr. James F. McKernon was chairman of the dinner committee, and Dr. H. Beattie Brown the toastmaster. The responses were made by Dr. James Pedersen, Dr. Charles W. Townsend, Dr. A. Ernst Gallant, Dr. W. W. Gilfillan, Dr. Austin W. Hollis, Dr. Percy N. Bolton, Dr. H. P. De Forest, Dr. Charles T. Proben, Dr. Edward W. Peet, Dr. Henry H. Forbes, and Dr. Charles Chapman.

Silver Medal Awarded Indiana State Board of Health.—The Indiana State Board of Health has been awarded a silver medal by the Paris Exposition for its exhibit of health pamphlets for distribution among the people, treating of the prevention of diphtheria, scarlet fever, typhoid fever, small-pox, etc. There were also exhibited full sets of blanks used in collecting vital statistics, with a detailed description of the Indiana methods of collection, tabulation and the recording of deaths, births, contagious diseases and marriages.

Injury to Professor J. J. Abel.—Press despatches state that Professor J. J. Abel was seriously injured on December 12th by the explosion of some apparatus while conducting experiments at Johns Hopkins University, where he is professor of pharmacology. Dr. Abel is an associate editor for Pharmacology of the *Journal of Experimental Medicine.*

No Small-pox in St. Paul.—G. M. Lytle, the mayor and health officer of St. Paul, speaking on December 8th after consultation with various medical men, denied the report that small-pox was prevalent in St. Paul. He is reported to have said:

"I have had Dr. Hodgkinson, of South St. Paul, and Dr. Beal, of St. Paul, make a thorough examination of every person employed in the packing houses, the distillery, the malthouse, the stockyards and the business houses of our town. The doctors found no trace of the disease. They are satisfied that there is no small-pox in South St. Paul. If vigilance can keep the disease out, it will be kept out regardless of expense."

The Death of Dr. William H. Jones, U. S. N. (retired) took place on December 13th at his home, in Bethlehem, Pennsylvania, at the age of sixty years. He graduated at the University of Pennsylvania. He contributed liberally to the Smithsonian Institution.

The Death of Dr. Edward A. Smith, formerly of Philadelphia, took place in New York City on December 10th. He was trustee and treasurer, and formerly vice-president, of the New York Orthopædic Dispensary and Hospital. He was born in 1830, and graduated at the University of Pennsylvania. He served as a surgeon in the civil war.

The Death of Dr. John C. Acheson, of New York, took place on December 12th. He was born in 1832 and graduated at the New York University in 1853, and at the College of Physicians and Surgeons in 1859.

Erratum.—The *Medicinische Woche,* abstracted in our issue for December 15th, should have been dated November 12th instead of November 5th.

Death of Dr. Eugène Janssen.—*Science* for November 30th records the death, at the age of sixty-nine years, of Dr. Eugène Janssen, member of the Superior Council of Hygiene and of the Belgian Royal Academy of Medicine, well-known for his work in hygiene.

Gifts to the College of Physicians and Surgeons of Chicago.—According to *Science* for November 30th, Dr. William E. Quine, dean of the College of Physicians and Surgeons in Chicago, has given $25,000 to the college to endow its library, and Dr. D. A. K. Steele, another member of the faculty, has given a like amount to endow the pathological laboratory.

Hospital Buildings and Endowments.—Mr. H. Melville Hanna, a brother of Senator Hanna, has given to Lakeside Hospital, Chicago, one thousand shares of Northern Pacific preferred stock, the present market value of which is $82,000.——An appropriation of $15,000 for the erection of an addition to the Municipal Hospital of Philadelphia for the reception of paying patients, has been recommended by the board of health of that city.——Plans have been filed for the Wage Earners' Emergency Hospital of Boston. Two stories will be put up at once and roofed over, and the upper stories will be finished as soon as bequests that have been made become available. It is estimated that the land upon which the hospital is to be erected, and the cost of the two floors to be built, will be about $100,000.——Competitive plans for an addition to the hospital connected with St. Elizabeth's Asylum at Washington, D. C., have been asked for.——The site which had been decided upon at Lake Clear for the new State Tuberculosis Hospital of New York State is not satisfactory to the State board of health. The members of the board are in favor of having a cottage colony for the consumptives rather than a large and expensive building.——The city attorney of Milwaukee, Wis., has been requested to draft a bill for presentation to the legislature giving to the city authority to condemn land outside the city limits for a hospital site.——A two-story addition, to cost $5,000 and to be of brick and fireproof, is to be made to the Alexian Brothers' Hospital at Oshkosh, Wis.——It is now believed that the Gouverneur Hospital, in New York City, will be ready for patients about January 1st. The institution is a model one, while the furnishings are reported to be most elaborate.——The Municipal Hospital at Washington, D. C., it is hoped, is in the way of becoming an accomplished fact. It is hoped that a sufficient amount will be added to the sum that was left over from the purchase of the site, to obtain plans and enter upon the work of construction.——Mr. E. D. Jordan, of Plymouth, Mass., has offered to build and equip a hospital which he will present to the town. The offer is unconditional, and has been gladly accepted. Work on the building will not be started until the spring.——The County Hospital at Milwaukee, Wis., is to be enlarged and remodeled at an expense of from $100,000 to $200,000. The present hospital is too small to accommodate the patients who wish to be treated.——At the meeting of the board of estimate and apportionment, held recently in the mayor's office in this city, President Keller, of the department of charities, urged the acquiring of the property at Lenox Avenue and One Hundred and Thirty-sixth and One Hundred and Thirty-seventh Streets for a new Harlem hospital. This plot measures 400 by 200 feet, and the cost would be about $310,000. The mayor asked that action on the matter be deferred until the next meeting.

Naval Intelligence.—*Official List of Changes in the Medical Corps of the United States Navy for the Week ended December 15, 1900:*

Butler, C. S., Assistant Surgeon. Detached from the *Independence* and ordered to the *Albatross*.

Dennis, J. B., Assistant Surgeon. Detached from the *Wheeling* and ordered home to await orders.

Fiske, C. N., Assistant Surgeon. Detached from the Naval Hospital, Mare Island, California, and ordered to the *Wheeling*.

Pleadwell, F. L., Passed Assistant Surgeon. Detached from the Bureau of Medicine and Surgery and ordered to the *Kearsarge*.

Pryor, J. C., Assistant Surgeon. Detached from the *Albatross* and ordered home to await orders.

Richards, T. W., Passed Assistant Surgeon. Detached from the *Alabama* and ordered to the Bureau of Medicine and Surgery.

Wheeler, W. M., Passed Assistant Surgeon. Detached from the *Kearsarge* and ordered to the *Alabama*.

Army Intelligence.—*Official List of Changes in the Stations and Duties of Officers serving in the Medical Department, United States Army, from December 8 to December 15, 1900:*

Fraser, Simon J., Acting Assistant Surgeon, is assigned to temporary duty with troops on the transport *Meade*, to sail for the Philippine Islands.

McCulloch, Champe C., Jr., Captain and Assistant Surgeon, will proceed to Manila on the transport *Meade*.

Pinto, Alva S., Acting Assistant Surgeon, is assigned to temporary duty with troops on the transport *Meade*.

Wales, Philip G., Captain and Assistant Surgeon, will proceed to Fort Duchesne, Utah.

The following changes in the stations of officers of the Medical Department are made: Wadhams, Sanford H., First Lieutenant and Assistant Surgeon, will report at Columbus Barracks, Ohio, for duty, and upon the arrival of Lieutenant Wadhams at Columbus Barracks, Major Timothy E. Wilcox, Surgeon, will report in person to the commanding general, Department of the Lakes, Chicago, for duty as chief surgeon.

Marine-Hospital Service. — *Official List of the Changes of Stations and Duties of Commissioned and Non-commissioned Officers of the United States Marine-Hospital Service for the Seven Days ended December 13, 1900:*

Austin, H. W., Surgeon. Detailed as medical officer in command of the national quarantine service on the Delaware Bay and River.

Craig, R. C., Acting Assistant Surgeon. Granted leave of absence for seven days from December 19th.

Mead, F. W., Surgeon. Granted leave of absence for one day.

Walerius, M., Senior Hospital Steward. Granted leave of absence for seven days from December 4th.

Casualty.

Cragg, James, Senior Hospital Steward, died at Key West, Florida, December 2, 1900.

Marine-Hospital Service Health Reports.—The following cases of small-pox, yellow fever, cholera, and plague, were reported to the surgeon-general during the week ending December 14, 1900:

Small-pox—United States.

Oakland, Cal	Nov. 24-Dec. 1	4 cases.	
Houston, Ga	Dec. 1-7	24 cases.	1 death.
Chicago, Ill	Dec. 1-8	1 case.	
Kansas	Dec. 1-8	9 cases.	
Lexington, Ky	Dec. 1-8	2 cases.	
Russell, Ky	Nov. 20	Epidemic.	
Detroit, Mich	Dec. 1-8	2 cases.	
Grand Rapids, Mich	Nov. 24-Dec. 1	1 case.	
	Nov. 25-Dec. 1	Reported present at 28 places.	
Minneapolis, Minn	Dec. 1-8	1 case.	
Omaha, Neb	Nov. 24-Dec. 1	3 cases.	
Manchester, N. H.	Dec. 1-8	20 cases.	
New York, N. Y.	Dec. 1-8	12 cases.	3 deaths.
Ashtabula, Ohio	Dec. 1-8	4 cases.	
Cleveland, Ohio	Dec. 1-8	32 cases.	2 deaths.
Steelton, Pa	Dec. 1-8	1 case.	
Memphis, Tenn	Nov. 24-Dec. 8	5 cases.	
Nashville, Tenn	Dec. 1-8	5 cases.	
Salt Lake City, Utah	Nov. 24—Dec. 8	69 cases.	

Small-pox—Foreign.

Gabriola Island, B. C.	Nov. 21	1 case.	
Nanaimo, B. C.	Nov. 21	13 cases.	
Cairo, Egypt	Nov. 1-18	1 case.	
Paris, France	Nov. 18-25		8 deaths.
Tuxpan, Mexico	Nov. 19-26		4 deaths.
St. Petersburg, Russia	Nov. 10-17	4 cases.	1 death.
Vladivostock, Russia	July 1-30	1 case.	
Warsaw, Russia	Nov. 10-17		32 deaths.
Glasgow, Scotland	Nov. 23-30	30 cases.	1 death.
Barcelona, Spain	Oct. 6-Nov. 11		49 deaths.
Valencia, Spain	Nov. 4-18	1 case.	
Merida, Yucatan	Nov. 15-30	Several cases.	

Yellow Fever—Foreign.

Havana, Cuba	Nov. 24-Dec. 1		7 deaths.
Puerte Padre, Cuba	Dec. 3	1 case.	
Mexico, Mexico	Nov. 18-25		1 death.
Tampico, Mexico	Nov. 18-25		6 deaths.
Vera Cruz, Mexico	Nov. 24-Dec. 1		2 deaths.

Cholera.

Bombay, India	Oct. 30-Nov. 6		3 deaths.
Madras, India	Oct. 27-Nov. 2		10 deaths.

Plague—Foreign.

Alexandria, Egypt	Nov. 5-12	1 case.	1 death.
Bremen, Germany	Nov. 6		1 death.
Bombay, India	Oct. 30-Nov. 6		84 deaths.
Madras, India	Oct. 27-Nov. 2		1 death.
Tamatave, Madagascar	Oct. 15-29	[illegible] cases.	1 death.

Plague—Insular.

Manila, Philippine Islands	Oct. 13-20	3 cases.	2 deaths.

Births, Marriages and Deaths.

Born.

Wheate.—In Cienfuegos, Cuba, on Monday, December 3d, to Dr. Justus Marchal Wheate, United States Army, and Mrs. Wheate, a son.

Married.

Garton—Farquhar.—In Washington, on Wednesday, December 12th, Dr. William M. Garton, United States Navy, and Miss Beatrice Farquhar.

Griffith—Menken.—In Philadelphia, on Wednesday, December 12th, Dr. Frederic Griffith, of New York, and Miss Lucile Andrews Menken.

Irish — Irving. — In Westport, New York, on Wednesday, December 5th, Dr. Reuben H. Irish, of Lansingburgh, New York, and Miss Margaret Irving.

Irving—Taylor.—In Henderson, North Carolina, on Wednesday, December 12th, Dr. Paulua A. Irving, of Richmond, and Miss Lucy Allen Taylor.

Miller—Beveridge.—In Washington, on Tuesday, December 18th, Dr. Maurice Erwin Miller and Miss May Beveridge.

Phelan—De Jancigny.—In Pamplemousses, Island of Mauritius, on Monday, October 29th, Dr. Henry du Rest Phelan, United States Army, and Miss Camille du Bois de Jancigny.

Wagner—Sheppard.—In Washington, on Thursday, December 13th, Dr. Robert Sidney Wagner and Miss Isabel Sheppard.

Died.

Acheson.—In New York, on Wednesday, December 12th, Dr. John C. Acheson, in the sixty-eighth year of his age.

Burkholder.—In Harrisonburg, Virginia, on Saturday, December 8th, Dr. N. M. Burkholder, in the fifty-ninth year of his age.

Jones.—In Bethlehem, Pennsylvania, on Friday, December 14th, Dr. William H. Jones, United States Navy.

Smith.—In New Brighton, New York, on Tuesday, December 11th, Dr. James F. Smith, in the twenty-fourth year of his age.

Stewart.—In New Brighton, New York, on Tuesday, December 11th, Dr. James Fluery Stewart, of Cold Spring Harbor, New York, in the twenty-fifth year of his age.

Pith of Current Literature.

Journal of the American Medical Association, December 15, 1900.

Nephrorrhaphy. By Dr. Charles P. Noble.—The author recommends: (*a*) Careful discrimination in diagnosis in order to separate cases in which movable kidney is a coincidence in a case of neurosis from those in which it is the cause of local and reflex symptoms; (*b*) resort to the rest cure for cases of slightly movable kidney, especially in young women; (*c*) the employment of symptomatic treatment in cases in which the relations between the movable kidney and the nervous symptoms present is uncertain—nephrorrhaphy should be employed in these cases only after nonoperative measures have failed to afford relief; (*d*) the immediate resort to operation in those cases in which the local symptoms, such as pain, sense of weight, or symptoms of strangulation, are present, and when the examination of the urine shows indications of congestion of the kidney, such as the presence of hyaline casts or albumin.

New Points in the Anatomy and Histology of the Rectum and Colon. The Treatment of Obstinate Constipation Based on Points Set Forth in the Foregoing. By Dr. J. Rawson Pennington.—Upon histological examination of a rectal valve, there will be seen beneath the mucosa a heavy layer of fibrous tissue which gradually diminishes until it is lost at the valve base. Bundles of circular muscular fibres are seen in the middle of the valve, and at its base are seen arteries and veins for its special nutrition. The action of these valves is considered, as are also the effects of their pathological changes. When, from interstitial inflammation or other reasons, these valves become pathologic or are the cause of obstinate constipation, the author advises the use of an automatic valve clip devised by himself, which grasps a section of the valve and is retained in position by means of its spring and automatic action. The section grasped is destroyed and removed by pressure necrosis, leaving a permanent division of the valve.

Colitis, Constipation and Appendicitis: Their Ætiologic Relations. With a Consideration of the Value of Incisions and Drainage in Certain Forms of Appendicitis. By Dr. Miles F. Porter.—The author believes it quite reasonable to suppose that either impaction of the fæces in the cæcum or swelling of its mucous membrane may produce closure of the passage between it and the appendix vermiformis. Considering that both these conditions frequently, if not usually, obtain in colitis; that colitis is a disease of frequent occurrence, and that both colitis and appendicular inflammation occur most frequently in childhood, the conclusion that colitis is frequently the cause of appendicular inflammation is irresistible. The author believes that incision and drainage is the proper procedure, and that no operator can subject all cases to appendicectomy without a higher death rate than is necessary.

Treatment of Immature Cataract. By Dr. John E. Weeks.—It is not beyond the possibilities to so influence the circulation of the eye, in some cases, that the progress of the cataract may be delayed. In atheroma of the vessels, arteriocapillary sclerosis, rheumatic or gouty diathesis, diabetes mellitus, pernicious anæmia, or in extreme prostration and impairment from any cause, proper therapeutic measures should be resorted to.

Rheumatism and the Prevention of Heart Complications. By Dr. James J. Walsh.—Until we can get some remedy which will control rheumatism and prevent its spread from joint to joint, or act as a prophylactic against the development of the disease as soon as its preliminary symptoms are manifest, we can scarcely hope to prevent rheumatic heart complications.

The Heart in Acute Rheumatism. By Dr. Delancey Rochester.—Endocarditis is an integral part of acute rheumatism, and not a complication; also myocarditis, which is frequently unrecognized and is the most serious feature of the disease. Pericarditis is a complication just as much as inflammation of any of the other serofibrous membranes. The occurrence of endocarditis, pericarditis, or myocarditis, or the previous existence of a valvular disease, whether compensated or uncompensated, is no contraindication to the use of the salicyl compounds, but rather an indication to push their administration to overcome the toxæmia of the disease. Rest in bed for a sufficiently long time is the most important element in the treatment of the cardiac manifestations of the disease.

Ear Diseases in Infancy and Childhood. By Dr. J. Homer Coulter.—When physician and parent are impressed with the relative importance of a discharge from the baby's ear; or of the portentous nature of a continuous earache, and that early and thorough cleansing and antisepsis are always and ever a necessity, then will many of the serious conditions and unfortunate results of the ear diseases of children be aborted.

Treatment of Skin Cancers without Operation. By Dr. Henry W. Stelwagon.—The proper use of caustic potash constitutes an extremely valuable method of treating these growths and has the advantage of rapidity. It might even be satisfactorily used in larger epitheliomata, if applied under anæsthesia. The reactive inflammation which always follows the application of this caustic is in itself an element of some value.

Tænia Flavopunctata, with Description of a New Specimen. By Dr. Frederick A. Packard.

A Compact Operating Case for Military Service, with a Description of Several New Instruments for the Same. By Dr. Nicholas Senn.

Sarcoma of Vermiform Appendix—Sarcoma of the External Urethral Orifice. By Dr. Theodore G. Davis.

The Use of Alcohol in the Treatment of Carbolic-acid Burns and Poisoning. By Dr. Herman A. Klein.

Medical Record, December 15, 1900.

Wounds of the Heart, with a Report of Seventeen Cases of Heart Suture. By Dr. L. L. Hill.—These wounds are nonpenetrating or penetrating—injuring the cardiac wall, or opening a cavity. The chief dangers from the former class are shock, and injury to a coronary artery. Ninety per cent. are penetrating. The right ventricle is most frequently injured, and the left auricle least so. Auricular wounds are more fatal than ventricular, and injuries to the apex are less dangerous than either. When the wound heals there is a possibility of cicatricial stretching and subsequent rupture. Blows upon the chest are more liable to cause rupture of the heart after a full meal, as the distended stomach pushes the heart upward and forward, and causes a large area of the organ to be in contact with the thoracic wall to receive the impact. There are forty-five cases on record in which traumatisms caused rupture of the heart without opening the pericardium. All were fatal. The fatality is explained when we consider that as soon as the accumulation of blood reaches the limit of pericardial distensibility, the cardiac movements are mechanically stopped. In one of the author's cases, the patient—a man aged twenty-eight years—had received a stab wound in the fourth intercostal space a little to the right of the left nipple. It was evident that the pericardium was rapidly filling with blood, and that the heart's action would soon be overcome by compression. The external hæmorrhage was slight. The blood was evacuated by enlarging the opening in the pericardium, and the patient's condition at once improved and he ultimately recovered, though subsequently traumatic pericarditis supervened. Operative intervention is justifiable, as experience demonstrates that a little in excess of forty-one per cent. of all patients that have been operated upon have recovered, whereas there are but ten per cent. of recoveries in cases in which no operation had been performed.

For temporary hæmostasis, digital pressure is preferable. Interrupted sutures should be used in closing a wound of the myocardium. Silk is the best material, and the usual needle used in suturing the intestines should be used. The sutures should be passed and tied during diastole. No anæsthetic should be administered.

Internal Hæmorrhage, the Result of Traumatic Rupture of Adhesions Due to Acute Appendicitis, with the Report of a Case. By Dr. Louis J. Ladinski.—The patient was a boy, eleven years old, who tumbled off a balustrade while sliding down upon it, and was put in bed complaining of severe pains in the abdomen, and suffering from nausea and vomiting. Upon examination, and considering the fact that the boy had had an attack of abdominal pain previously to the fall, a diagnosis of general peritonitis due to rupture of an inflamed appendix was made. The peritoneal cavity, being opened by a median incision, was found filled with blood. The appendix was doubled up and held in that position by the adherent mesoappendix; the entire region was injected and congested, and through a rent half an inch in length in the meso-appendix were seen several small spurting blood vessels. The meso-appendix was ligated; adhesions were removed; the peritoneal cavity was washed with saline solution, and the wound closed. The recovery was uneventful. The case is undoubtedly unique.

Insanity, its Causes: Is there in Woman a Correlation of the Sexual Function with Insanity and Crime? By Dr. Mary Dixon Jones.—The author in an admirable article almost compels the conclusion that the proper answer to this question is "No." Quoting the opinion of Dr. Regis, "During menstruation females are subjected to singular caprices, fantastic tastes * * * some have a spontaneous tendency to wrongdoing, and give themselves up to irresistible impulses," the author states that all these views may seem to be very scientific as one passes through the wards and immense halls of La Salpêtrière; but, outside of that hospital, there is a great big world, and there are untold millions of women who pass through the menstrual period without any of these psychical symptoms, or any form of menstrual insanity. Normal, healthful menstruation is accompanied by none of these supposed changes. There are other organs in the body that more decidedly and more directly affect the condition and health of the brain, and produce more marked anatomical changes, and more serious results, than can possibly come from the sexual organs and their functions. The other causes that conspire to produce insanity are reviewed and brought forward in such guise as to minimize the importance of the sexual element as an ætiological factor.

Analgesia in Children by Spinal Injection, with a Report of a New Method of Sterilization of the Injection Fluid. By Dr. William Seaman Bainbridge.—The author has met with marked success. His method of sterilization is as follows: About a drachm of ether is poured over five grains of powdered cocaine or eucaine in a measuring-glass, which has been boiled, as well as the glass rod used to mix the ether thoroughly with the powder. The mixing process is continued until all the ether has disappeared. Then, one ounce of boiled filtered water is added. The solution is made fresh before each operation. He has found cocaine to be more satisfactory than eucaine.

Medical News, December 15, 1900.

Treatment of Influenza in Children. By Dr. A. Jacobi.—Only under extraordinary circumstances is there a possibility of avoiding contact. There is no infectious disease that creates a greater disposition to tuberculosis than influenza. Expectorated mucus and the result of sneezing should be caught and disinfected or destroyed. Tools, toys, towels, handkerchiefs and linen, should receive the same care as in tuberculosis. Isolation should be advocated and the use of a disinfectant mouth wash prescribed. Drinking-water should be acidulated and the irrigation of the nose practised. As to treatment, there is no specific, and rational, hygienic and symptomatic and sustaining medicinal treatment only can be considered. A purgative dose of calomel should be given to clear the bowels—the principal point of attack in young children—of microbic and toxic ingesta. The diet should be scanty and fluid at first. Alcohol is required in convalescence rather than in the course of the disease. Cold baths are contraindicated in fever. A warm bath is often beneficial where there is much muscular pain and restlessness. Quinine is of use: Mossé, to abort the disease, administered 1.0 to 1.25 grammes the first day, sometimes also the second. Severe vomiting should be treated by refusing to feed through the stomach. The best relief is given by morphine, rarely by ice. A tablet of one milligramme, or a half a drop, of Magendie's solution should be thrown into the mouth and absorbed. Acetanilide, being a derivative of aniline, is poisonous. Antipyrine is of use. One of the best stimulants is Siberian musk, and the author knows of nothing better in the most urgent cases. A child, two years of age, should take of the ten-per-cent. tincture, from five to ten minims every half hour until half a dozen or a dozen doses have been taken. The author concludes by quoting an experience of Goldschmidt, who observed that, of one hundred and twelve persons who had been vaccinated (upon the occasion of an epidemic of small-pox), and who had subsequently been exposed to influenza, all remained free from the disease. He believes that this suggests the possibility of a future serotherapy for influenza and its very serious consequences.

The Clinical Picture of Epidemic Influenza. By Dr. Glenworth R. Butler.—The well-known general symptoms that are manifested in all cases are given, and the author then considers those varieties of the disease that depend upon the special localization of the infection. The early symptoms of the *respiratory form* are those of a severe coryza, followed usually by pharyngitis, laryngotracheitis and bronchitis. A slight patchy pneumonia with scanty physical signs is often present. Cough may be violent and paroxysmal. In the *nervous form,* there is but slight fever, but there is an atrocious headache, severe pain in the back and limbs, and marked prostration. These are often the only symptoms, but, in a certain proportion of cases, coryza and cough supervene in the course of two or three days. In the rare *typhoid* or *febrile variety,* the fever is of the continued type, with delirium, dry, brown tongue, tympanites and other evidences of the typhoid status. Bronchopneumonia is the most common of the respiratory complications; the lobar form less so. Pleurisy is not uncommon, but seldom terminates in empyema. Œdema of the lungs may occur as a sequence of pneumonia. Enlargement of the bronchial glands is rather frequent, and the persistent cough has been attributed to irritative pressure upon the laryngeal nerves by the swollen lymph-nodes.

Influenza and the Nervous System. By Dr. J. M. Mosher.—The infection of influenza produces a toxine which has a severe and selective action upon the nervous system. Its immediate effects are shown in affections of the peripheral nerves, and of the cerebrospinal centres. The remote effects are manifested in lowered tone of the nervous system, predisposing to other diseases that arise in weakened or predisposed organs, giving rise to the different classes of "respiratory," "alimentary," "genito-urinary," and "circulatory" forms of influenza. Post-influenzal insanities are also a complication of the post-influenzal states of nervous debility, in patients mentally predisposed, but they are not essentially different from other insanities due to vital depression. The prognosis of influenzal affections is generally good under proper management, except in influenzal affections arising during the course of other severe diseases, and during senility complicated by mental or physical deterioration.

The Bacteriology of the Influenza Bacillus. By Dr. August Jerome Lartigau.—The *Bacillus influenzæ,* discovered by Pfeiffer in 1892, appears as an extremely small, slender, nonmotile bacillus, whose length scarcely exceeds its breadth by two or three times. The bacilli may be stained by any of the basic aniline dyes, which they take up rather feebly and irregularly; the poles are usually more deeply colored than the middle parts, often giving the appearance of diplococci. Outside the body it is very susceptible to injurious influences, and from many observations it has been generally assumed that the extracorporeal existence of the influenza bacillus must be very short, and that infection probably takes place by means of the freshly contaminated secretions. Within certain limits an early diagnosis may often be made by a mere microscopical examination without resorting to cultures. When other bacteria are present the diagnosis becomes more difficult, and cultures will usually then be required. Pure cultures may best be obtained on the surface of solid media, previously smeared with a small amount of human or animal blood.

The Treatment of Influenza in Adults. By Dr. Reynold Webb Wilcox.—Opium, and all measures that depress the circulation, should be avoided. When the infection is carefully treated it should leave no traces in a healthy individual, but our anxieties are awakened when we have to deal with epidemic influenza in old alcoholics, in diabetics, in persons suffering from arterial, cardiac, or renal degeneration, and in old age. With avoidance of all depressing measures and a consideration, not of symptoms, but of the general aspect of the patient, *the treatment of the disease and of the patient,* success follows in a very large percentage of our cases.

A Note Concerning the Treatment of Influenza by the Employment of Hydrotherapy. By Dr. E. L. Shurly.—The persistent use of the hot-water bath, steam bath, or hot pack, in conjunction with quinine and mild anodynes, is advised by the author for the first stage of the disease, and he asserts that such a plan will not only modify the first stage of the disease, but will often cut short its course and prevent the subsequent events constituting the second stage.

Infantile Grippe, with Unusual Temperature Range. By Dr. L. E. La Fetra.

Boston Medical and Surgical Journal, December 13, 1900.

Pericarditis with Effusion. By Dr. George G. Sears. —While a number of conditions may simulate a collection of fluid in the pericardium, practically the chief difficulty in diagnosis lies in distinguishing it from marked cardiac enlargement, unless the case has come early under observation, and it has been possible either to watch the gradual accumulation of the fluid, or, rarely, to follow its fluctuations from day to day, as illustrated in one of the author's cases, in which each relapse of the joint symptoms was accompanied by a demonstrable increase in the amount of pericardial effusion, both subsiding under increased doses of the salicylates. The chief interest lies in the decision as to when and where to aspirate. The history of the author's attempts is largely a record of failures, but no harm has ever resulted, and he believes that the marked relief to the patient, which sometimes follows the withdrawal of a few ounces of fluid, fully justifies the procedure. Although the fourth and fifth right spaces have been the ones more often selected in the author's cases, as the danger of wounding the heart seems smallest there, the proportion of productive taps has not been particularly encouraging.

Cases of Acute Oral Inflammation. By Dr. John C. Munro.—This paper embodies the results of a search of the records of the Boston City Hospital for cases of stomatitis, glossitis, and Ludwig's angina. As to the bacteriology of those affections, nothing is known definitely. In the few cases examined, the streptococci and staphylococci were the predominating agents. In the cases of ulcerative stomatitis that recovered, main reliance was placed upon washes containing myrrh, chlorate of potassium, permanganate of potassium, or hydrogen peroxide, in addition to vigorous supporting and stimulating diet. One child, four years old, where the noma perforated the cheek, recovered under this treatment. The process never advanced rapidly enough to warrant surgical intervention. The incision in glossitis is best made into the dorsum, on each side of the median line. In anginal cases, the incision is best made in the median line below the chin.

The Results of Operations on Varicose Veins. By Dr. J. B. Blake.—Operation for radical cure of varicose veins by dissection is not successful in every case. To obtain successful results, cases must be selected and certain conditions avoided, and recommended to palliative treatment. The conditions that militate against satisfactory results are: (*a*) Old age, or an extremely debilitated condition; (*b*) excessive and very extensive varicosity; (*c*) occupations that to an extraordinary degree favor the development of varicose veins.

Cases that may be cured by a thorough and careful operation are: (*a*) Local varix, even of marked prominence, particularly if thrombosis has occurred, either in the thigh or lower leg; (*b*) extensive varix, limited to a single venous stem; (*c*) varicosities which are a bar to passing civil service, military, or naval examination; (*d*) cases in youth or middle life; (*e*) cases in which the development of the permanent varicosity was at least partially due to more or less removable conditions (flat foot, garters, etc.).

Operation, if not entirely successful, will usually relieve such complications as thrombosis, hæmorrhage, and ulceration. In all cases operated on, general systemic treatment as well as local treatment should be prescribed, together with exercise and the avoidance of a continued upright position whenever possible. Cure of symptoms does not necessarily mean the removal of all visible varicosities.

A Contribution to the Therapeutic Action of Heroine. By Dr. Bernard Lazarus.—As the result of very thorough investigations with heroine hydrochloride in his practice, the author considers this drug a most valuable aid in medicine. In pulmonary affections accompanied with coughs, he would rank it as a specific, while its analgetic qualities in neuralgia, and its antispasmodic effect in asthma and whooping cough, have been so well established as to entitle it to a prominent place in the treatment of these affections.

A Modification of the Old Sinus Needle Forceps. By Dr. W. L. Burrage.

Philadelphia Medical Journal, December 15, 1900.

Foreign Bodies in the Air-passages. By Dr. Francis T. Stewart.—The saying of Robert Liston, "Learn to look boldly on the open mouths of arteries," may have its correlative in "Learn to look boldly on impending death from asphyxia." Anything small enough to enter may find its way into the air-passages, and in the author's twelve cases are found a comb, sprigs of evergreen, a piece of raw apple, morsels of meat, a jackstone, a portion of glass bottle, fragments of coke, a collar button, a grain of corn, and a threaded needle. There is on record the case of a soldier who, four months after a gunshot wound of the chest, coughed up a fragment of one of his own ribs. The diagnosis is usually made from the history given by the patient or the patient's friends. In children, a foreign body should always be thought of, if there is respiratory difficulty, especially if there has been, previously, absolutely perfect health, with a sudden onset of symptoms. In the treatment, emetics, sternutatories, inhalations, liniments, ointments, and titillation of the larynx, should have no place. In a great emergency, a knife may be thrust through the cricothyreoid membrane; if there is more time, a low and rapid tracheotomy should be performed. When above the vocal bands, a moderate degree of ingenuity will often aid in removing the body. Inversion without adequate means for immediately opening the trachea is dangerous because of the possibility of death from impaction in, or spasm of, the glottis, the foreign body suddenly striking the larynx from below.

A Tropical Ration. By Dr. J. R. Kean.—The author in this concluding instalment of his paper, plans a dietary which is available from the economic and practical standpoint, as well as from a hygienic view. Alimentation in the tropics is, in truth, the foundation of the temple of hygiene, and if the health and efficiency of an army depend upon its rations, it is clear that the sanitary corps must have a voice in the selection of that ration. There is a necessity for a mixed jury, and a scientific and unbiased verdict.

Principles of Asepsis Applied to Operative and other Wounds of the Eye. By Dr. Edward Jackson.—External antiseptics cannot replace the natural barriers to infection, and must not be suffered to impair them. Hæmorrhage is of great importance in securing asepsis, and its management should be undertaken with this purpose well in view. Free drainage is still essential for most penetrating wounds of the eye; and the complete cleansing of ocular wounds should be secured, if possible, even at the cost of considerable operative intervention. Perfect mechanical results, to be secured by perfect operative technique, are essential to perfect asepsis.

The X-rays in the Treatment of Carcinoma. By Dr. Wallace Johnson, and Walter H. Merrill, B. L. (*concluded*).—Some cases are reported. As the object is to produce a dermatitis, the so-called x-ray burn, the state machine and the smaller coils are not applicable. The soft or low vacuum tube should be used, and its burning time determined beforehand. The healthy skin beyond the diseased tissue is protected by tinfoil. The object is to produce, in and about the diseased tissue, a burn of such depth that it will require six weeks to heal on the normal skin. The treatment is then suspended for a month, and, if a complete cure is not in prospect at the end of that time, the process is continued over those parts which still resist. Photographs accompany the text, and from every standpoint the results seem to be very gratifying.

Some Remarks on the Hygiene of the Ear. By Dr. Emil Amberg.—The author has written an excellent little tract on this subject: First, in connection with the proper care of the nose and throat; secondly, with general diseases; and, thirdly, in general daily life. The public, in general, becomes aware of the value of the organ of hearing, only after it is impaired. We physicians, guided by our experiences, should carefully steer the public through the straits of life and again and again point out to them where danger threatens.

Chronic Villous Arthritis. By Dr. S. L. West.—Rest, regulation of the bowels, and the general secretory and excretory functions, and appropriate treatment to meet complications, are indicated. Locally, ichthyol, mercury and belladonna, followed by a plaster-of-Paris or silicate of soda dressing to immobilize the joint, give the best measure of benefit.

Some Remarks on Catalepsy, with Notes of a Case. By Dr. George William Norris.—The author reports a typical case.

The Struggle-for-Life Lobule. A Study of the Interior Temporal Gyrus. By Dr. Wallace Wood.—In the light of comparative anatomy, it seems impossible to the author for the under surface of the brain to represent anything very lofty or spiritual; he believes rather that it is the soul of the vegetative life.

Venesection in Pneumonia, Followed by Injection of Normal Salt Solution. By Dr. William Porter.—The author details his investigations in this line, and expresses the hope that further investigation may justify this method as an addition to our treatment in pneumonia. In the experiments at the City Hospital of St. Louis, venesection is ordered as soon as the diagnosis is well established; within four days at farthest from the initial chill. The removal of from eight to twelve ounces will generally give relief in the average case, and at once the subcutaneous injection of the salt solution is ordered.

Hyalin Casts Present in Puerperal Eclampsia. By Dr. L. Napoleon Boston.—In all fatal cases observed, casts have been present in the urine obtained a few hours before death; while their disappearance from the urine, after delivery, has been a favorable symptom.

Report of a Case of Foreign Bodies in the Brain. By Dr. Clarence A. Greenleaf.—An illustration of the value of the x-ray in determining, not only the presence of the foreign bodies, but also their location; also of its value in determining the feasibility or advisability of operative interference.

The Electrical Treatment of Uterine Fibroids. By Dr. Gideon C. Segur.—Electricity properly applied may be considered a specific for uterine fibroids. A moderate dosage, from forty to fifty milliampères, applied for twenty or thirty minutes, relieves pain and induces a diminution in size. There are no dangers to be feared from its use, if carefully conducted. Puncture is not necessary in order to obtain practical results. No serious operation should be undertaken until after electricity has been tried.

Congenital Unilateral Ptosis, with Associated Movements. By Dr. Frederick Krauss.

National Volunteer Emergency Service Medical Corps; its Objects, Scope and Importance. By Dr. J. Adelphi Gottlieb.

Lancet, December 8, 1900.

Prognosis and Treatment in Pulmonary Tuberculosis (*continued*). By Dr. R. Maguire.—Absence of fever may be of good omen, or, on the contrary, it may indicate a lack of reactionary power on the part of the general system; if it is accompanied by great bodily weakness, the condition often indicates an unresisted attack of the tubercle bacillus, leading eventually to a furious outbreak and rapid destruction of lung tissue. But given bacilli in the sputum and little or no pyrexia, the local manifestation limited, but with the general strength well maintained, the prognosis is good. The only form of pyrexia that can be said to be absolutely tuberculous, is that in which the morning temperature is higher than that of the evening. The higher the morning temperature, and the nearer it approaches to the evening temperature, the worse is the outlook for the patient. Feebleness of the peripheral and general circulation carries with it a bad prognosis; it indicates a prospective lack of resistance on the part of the patient, and interferes with the treatment by over-feeding and fresh air. The same may be said of digestive disturbances. A single large hæmoptysis, without pyrexia and without signs of an extensive lesion, is of comparatively little importance. The conjoined presence of fever is, however, of serious import.

Extension of a tuberculous lesion of the lungs may take place by means of (1) simple contiguity of tissue; (2) lymphatic absorption; (3) bronchial insufflation; (4) venous conduction, and (5) arterial conduction. Of these the third method, by bronchial insufflation, is of by far the greatest importance.

Tuberculosis of the larynx is always caused by infection of the larynx through the excretion of the lungs. Similarly, too, the intestines become infected from the swallowing of tuberculous sputum.

In the second stage of pulmonary tuberculosis, the only two symptoms which help greatly in prognosis are pyrexia and hæmoptysis. What has been said of pyrexia in the first stage of the disease, holds good here. "Hectic" fever, where the morning temperature is subnormal and the evening 6° or 8° F. higher, is the most serious form, and is not benefited by the use of any drug.

The dangers of hæmoptysis are (1) loss of blood, which may be a very serious matter in the case of a debilitated subject; (2) shock, with cardiac failure; and (3) fright.

In the third stage of the disease, that of "result," dyspnœa, both on exertion and at rest, is nearly always present and is unfavorable for prognosis. Such dyspnœa is more unfavorable in cases in which the formation of cavities is going on than in those in which fibrosis is taking place, although the dyspnœa may be greater in the latter class of cases. Heart failure is one of the most serious complications of this third stage, as is also pneumothorax. The danger of the latter is mostly limited to the moment of its occurrence; it scarcely requires treatment and often does well. It is more common in the formation of cavities than in fibrosis. Hæmoptysis is the greatest danger of this stage of the disease; it is most frequently caused by rupture of an aneurysm of the pulmonary artery in a cavity. Such aneurysms are caused by suction. (*To be continued.*)

The Operative Treatment of Fibroid Tumors of the Uterus. By Dr. E. Malins.—The author reports six cases of supravaginal hysterectomy for fibroid tumors of the uterus. He describes in detail the various steps of the operation, and advocates the use of the Trendelenberg position. It conduces to the confidence and comfort of the operator and to the ease and celerity of the operation. The majority of fibroid tumors call for no surgical interference. In advising an operation, the following points must be considered: (1) social position; (2) excessive and persistent hæmorrhage; (3) pain and discomfort due to pressure symptoms; (4) the rate of growth. Of the six cases here reported, recovery took place in all and the patients were entirely relieved by the operation.

Vaginal hysterectomy is applicable to the cases of smaller tumor, yet some operators prefer this route and extract by it tumors which reach to the level of the umbilicus.

The Bowel Lesion of Typhoid Fever. By Dr. T. J. Maclagan.—"The points to be noted in connection with the bowel lesion are: 1. That the structure on which the typhoid bacillus exercises its specific effects are the solitary and agminated glands situated in the submucous coat of the small intestine. 2. That the change which it causes in these glands is inflammatory in nature and essentially consists in proliferation of their cellular and granular contents, with consequent swelling and hardening of the glands. 3. That this inflammation is generally sufficiently severe to cause gangrene and sloughing of the affected glands. 4. That the direct action of the typhoid bacillus is limited to the glands of the submucous coat; and that it has no direct action on the mucous, muscular, or peritoneal coats. 5. That the sloughing process that destroys the glands, necessarily also destroys the mucous membrane situated over them. 6. That with the process of sloughing and suppuration there come into play other and new morbid agencies, the various forms of cocci associated with these processes. 7. That to these new agencies, rather than to the typhoid bacillus, are to be attributed all the more serious complications and all the formidable symptoms, general as well as local, which are apt to show themselves during the third and fourth weeks of the disease."

Concerning Certain Apparently Injurious Constituents of Potable Spirits. By Sir Lauder Brunton and Dr. F. W. Tunnicliffe.—This communication is devoted to the question of the aldehyde contents of various potable spirits and liqueurs, and especially to one particular aldehyde: viz., furfural. Its source is a class of substances known as pentosanes, derived from the cellulose of the grain husks. Specimens of whiskey, brandy, gin, rum and various cheap alcoholic drinks, all contained aldehydes and furfural in varying proportions, in some cases to the extent of 0.03 grammes per litre. When furfural is given to men and animals, it causes paralysis of the voluntary muscles, and, later, clonic and tonic convulsions, with rapid breathing. An odd feature was the transient nature of the symptoms: the whole cycle would often be completed in half an hour. Sensation never seemed to be affected. Smaller doses caused symptoms of transient irritation, as tremors, twitching and headache. Where the aldehydes were removed from the spirit, the return from the drunkenness caused by the aldehyde-free spirit, was more sudden and unaccompanied by the usual disagreeable secondary symptoms. Furfural is excreted in the urine. Its presence can be demonstrated by adding to the suspected fluid a few drops of a sodium carbonate solution and then a few drops of solution of aniline acetate. A rose-pink color develops on shaking, when furfural is present.

Suggestions for the Practical Treatment of Typhoid Fever. By Dr. W. Ewart.—The chief objects of the treatment of typhoid fever should be: (1) to limit the extension of the ulceration; (2) to treat the ulcers; and (3) to obviate their giving rise to hæmorrhage or perforation.

Stagnation of putrid fæces is one of the chief dangers; much of the alarming tympanites of bad cases is due to this cause. The lesser evil of constipation incidental to astringent treatment is one easily overcome by daily injections. Relative inactivity of the liver is the inevitable consequence of the pyrexia, of the immobility of the patient, and of an exclusively fluid diet. Much of the value of Brandt's treatment is due to its relief of this condition. Still better is mercury, a medicinal antiseptic as well as a powerful hepatic stimulant. The author keeps his patients in a position of slight inclination toward the left; in this way any fulness or pressure in the right iliac fossa is avoided. As to medicinal treatment, twenty minims of the liquor hydrargyri perchloridi and fifteen minims of the tinctura ferri perchloridi are given to an adult every six hours. Diarrhœa is quickly checked, and any constipation relieved by glycerin injections. The diet should be peptonized milk.

The Treatment of a Case of Acute Dilatation of the Stomach. By Dr. G. Coates.—The author reports a case of acute dilatation of the stomach in an infant three weeks old, who finally recovered, and in whom the recovery seemed to be entirely due to systematic washing out and cleansing the stomach. Stenoses of the pylorus, either spasmodic or structural, was probably the cause of the dilatation. On washing out the stomach with a solution of sodium bicarbonate, sodium sulphocarbolate and euthymol, from three to four ounces of curds and slime were removed each time. The removal of this residue seemed to be the main point in the treatment, analogous to the removal of residual urine from the bladder. The stomach washing was continued daily for two months, during which time the child steadily improved, its weight increasing from six to twelve pounds. The stomach regained its normal size, the residue of slime gradually disappeared, and the child has remained well and healthy.

A Case of Complete Transverse Sæptum of the Vagina Impeding Delivery; Urethral Coitus. By E. Rumley-Dawson, M. R. C. S.—The patient, aged twenty-one years, and a primipara, was in strong labor when first seen. On making a vaginal examination, the finger passed less than an inch into the vagina, meeting with an obstruction which felt like a large "bag of waters" and bulged with each labor pain. The external genitals were normal, but the urethra was much dilated. The vaginal obstruction was found to be a thick transverse sæptum, one-quarter of an inch thick at its insertion and thinning at the centre. No aperture could be found in the sæptum, which was not on the site of the hymen. The sæptum was incised with a knife between two pains, the incision enlarged with the fingers, and delivery of a healthy child took place easily and naturally. Although no opening could be found in the sæptum, one must have previously existed, as the menses had been regular and easy. When conception occurred, the opening probably closed, up to which time coitus had been vaginal. Later, coitus was urethral. So patulous was the urethra that the finger passed easily and painlessly into the bladder.

An Obscure and Complicated Case of Carcinoma of the Stomach. By C. F. Steele, M. R. C. S.—The author reports a case of the above-mentioned affection occurring in a man, aged forty-six years, where the true nature of the malady was not suspected during life. The chief symptom was bulging of the abdominal wall in the hepatic region; this was thought to be due to a cyst, either hydatid or cystosarcomatous. At the autopsy, cancer of the stomach was found; the liver was adherent to the abdominal wall at a point corresponding to the external bulging, and its capsule was thickened, but no tumor or cyst of the liver existed.

An Instance of Excessive Enteric Rash in Childhood. By A. Mande, M. R. C. S.—The author reports a case of typhoid fever in a boy, aged twelve years, in which the rash appeared on the tenth day, reaching its greatest development five days later. The rose spots were so numerous that it was impossible to count them. They occurred on every part of the body, even invading the margin of the mucous membrane of the lips. This great intensity of the rash lasted two or three days. The child was seriously ill, but made a good recovery. The first appearance of the rash in children is usually earlier than in adults, frequently on the fourth day. Crops of spots may occur for a week after the temperature has reached normal. The rash is apt to be either very pronounced or very slight. The author does not believe that the *"taches bleuâtres,"* seen in typhoid fever, are due to irritation caused by pediculi.

British Medical Journal, December 8, 1900.

On Recent Researches with Regard to the Parasitology of Malaria. By Lord Lister.—The author reviews the progress made in our knowledge of the parasitology of malaria, from the discovery of the plasmodium in 1880 by Laveran down to the present day. Special attention is paid to the work of Ross, which established the mosquito theory of malaria, and to that of MacCallum on conjugation and the development of the vermiculus.

The Causes and Cure of Insomnia (*continued*). By Sir J. Sawyer.—It should always be assumed that a given case of insomnia can be cured by understanding its particular causation and remedying the same, rather than by attacking the effect by dosing with some hypnotic. In the severer forms of psychic insomnia, sleep must often be at once secured by the action of some efficient hypnotic, such as opium or chloral. Acute insomnia, due to sudden mental shock or strain, can often be quickly cured by these drugs. A combination of drugs often acts better than any of them singly. But never allow a patient to dose himself with hypnotics. An overworked man must not be allowed to go on with his overwork, obtaining sleep only by the use of hypnotics. And in such cases, work should be abstained from for several hours before bedtime. A holiday with change of scene will often do much to cure. In mild cases potassium bromide is by far the best hypnotic. It should be given in thirty- or sixty-grain doses, to be taken after getting into bed. It may be combined with ergot in order to contract the weakened cerebral blood-vessels. In many cases, the patient will be found to be anæmic; remedy this condition with iron and arsenic and the insomnia disappears. Alcohol is of the greatest value in chronic psychic insomnia; but the reasons for its use should be explained to the patient, and it should be discontinued, as is any other drug, when no longer needed. Lying in bed in the morning is not a remedy for insomnia. An afternoon nap, after a meal, is often helpful. Daily bodily exercise in the open air must be enjoined. Driving is good, walking better, cycling still better and horseback riding the best of all. Various methods may be tried for changing the current of conscious cerebration. The author commends the plan of taking deep inspirations. Be sure that the bedclothes are sufficient, yet not excessive. In all cases, the bedroom window should be open all night and all the year round. A little food taken just on going to bed is often an efficient soporific. In toxic insomnia, we must stop or lessen the consumption of alcohol, tobacco, tea, etc. Senile insomnia is very obstinate; in the bromides, with full doses of hop or henbane, we have the most efficient and least harmful medicinal means of relief.

Remarks on the Diagnosis and Treatment of Arsenical Neuritis. By Dr. J. S. Bury.—Among the symptoms resulting from arsenical poisoning are: 1. Certain skin lesions: (a) a peculiar pigmentation, sometimes closely resembling that of Addison's disease, (b) herpes zoster which is present in a small percentage of cases, (c) bullous or erythematous eruptions, (d) a thickened condition of the skin over the knuckles and other places. 2. Loss of fair, falling off of the nails. 3. Intermittent dysuria or glycosuria. 4. Coryza and œdema of the eyelids. 5. Ulceration of the gums and fauces. 6. The presence or history of indigestion, with nausea and pain. Psychical disturbances occasionally occur, but the heart is rarely affected.

The first essential in dealing with a case of arsenical neuritis, is to find out how the arsenic is entering the body, and to stop its action as soon as possible. In the Manchester epidemic, arsenic is the potent factor, but the influence of the alcohol must not be overlooked, as it is the most common cause of peripheral neuritis. In all but the slightest cases, rest in bed is advisable. The severest cases require a water-bed, which relieves the pain and supports the patient. Massage must never be employed during the acute stage of the disease. Warm fomentations will relieve the tender muscles and nerves. As regards drugs, salicylate of sodium and potassium iodide appear to be of service. Antipyrine or even morphine may be required for the neuralgic pains. Strychnine must not be given during the acute stage. Of the greatest importance is the regular and careful administration of nourishment in liquid form. When the acute symptoms have subsided, and not before, recourse may be had to massage, electricity, and tonic treatment. And, from first to last, abundant fresh air and sunlight are necessary. Strychnine is the most valuable drug for restoring the paralyzed parts.

The Surgery of Chronic Ulcer of the Stomach and its Sequelæ. By B. G. A. Moynihan, F. R. C. S.—The conditions resulting from chronic inflammatory processes in or near the stomach, and giving rise to dilatation of that organ, are: (1) temporary intermittent narrowing of the pylorus, pyloric spasm; (2) circumscribed or annular fibrous construction of the pylorus; (3) diffuse cicatricial induration of the pylorus or first part of the duodenum; (4) cicatricial contraction and induration with adhesions between pylorus, duodenum, abdominal wall, liver, gall-bladder, etc.; (5) cicatricial contraction and induration at the site of an ulcer in the body of the stomach—"hour-glass" contraction; (6) adhesions external to the stomach, originating in the gall-bladder and bile ducts.

In the surgical treatment of these various conditions, any of the following operations may be found necessary: (1) pyloroplasty, gastroplasty; (2) gastro-enterostomy; (3) pylorectomy; (4) gastrolysis.

Gastro-enterostomy is the operation most frequently called for, and the author describes in detail his method of performing it. He reports two cases of pyloroplasty, twelve of gastroplasty for "hour-glass" contraction, six of gastro-enterostomy and one of gastrolysis. All the patients recovered from the operation, and were completely relieved of those symptoms of gastric disturbance which made operation imperative.

Case of Hour-glass Stomach and Pyloric Stenosis; Gastro-enterostomy; Death. By Dr. S. Martin and B. Pollard, F. R. C. S.—The authors deem this case worthy of record, inasmuch as it was one of double nonmalignant constriction of the stomach in a young woman, for which gastro-enterostomy was performed. Unfortunately, however, this was done in the second compartment of the stomach, so that, although the operation itself was successfully carried out, no relief to the symptoms was obtained, and death ensued. No adequate explanation of the hour-glass constriction was arrived at. The small ulcer present seemed insufficient to account for it. The pyloric obstruction was probably due to a small duodenal ulcer.

Prognosis and Treatment in Pulmonary Tuberculosis. By Dr. R. Maguire. (See abstract of the *Lancet* for December 8, 1900, in this number of the *Journal.*)

Lyon médical, November 25, 1900.

Scrofula and Adenoid Vegetations.—M. Rivière says that the word "scrofula" does not indicate anything very definite, and yet a so-called "scrofulous diathesis" exists. He believes that adenoid vegetations which do not give rise to metastases or which are not accompanied by tuberculous taints, are simply vegetations and nothing more; and *vice versa.* Anti-scrofulous treatment, he says, will prevent recurrences of the growths and, after their removal, should be instituted as a safeguard.

Mosquito Theory of Malaria (*concluded*).—M. P.-Just Navarre says that while inoculation of man by mosquitoes and of mosquitoes by man seems to be proved, the theory does not prove all the facts of paludism and is too general. He advises the destruction of mosquitoes and their habitats, avoidance of night air, and metal screens at doors and windows. Nevertheless, several facts in the life history of the hæmatozoon of Laveran are unknown, such as the growth of the parasite in the larvæ of mosquitoes and the persistence of the parasite in propitious soil. The author is inclined to accept the mosquito theory, but he calls attention to the faults and crevices in it.

Progrès médical, November 24, 1900.

Pathological Anatomy in its Relations to other Branches of Medicine.—Professor Cornil points out the great advances made possible in medicine by pathological anatomy since the days of Bichat. He says that this science embraces general ætiology, comprising the action of physical, mechanical, chemical and toxic agents, the influence of parasites and heredity; it includes the study of inflammation, vascular disturbances and tumors, general semeiology and general therapeutics. All other branches of medicine are dependent upon it. [The lecture is a scholarly and masterly review of the entire subject.]

Indépendance médicale, November 21, 1900.

Pityriasis.—Abstract of a clinical lecture by M. Gaucher.

Presse médicale, November 21, 1900.

The Liver in Infantile Gastro-enteritis.—M. Eugène Ferrien looks upon the glycosuria occurring in acute gastro-enteritis in infants, as an evidence of the diminished function of the liver. Even when the diarrhœa and the fever have passed away, the weakness and cachexia of the children can be attributed to the continued glycosuria dependent upon an inactive liver, the glycolytic function of which is disturbed.

Gazette hebdomadaire de médecine et de chirurgie, November 18, 1900.

Treatment of Spinal Gibbosities Due to Pott's Disease.—M. Pierre reviews the discussion at the congress of 1900 on this subject. He says that the method of choice is that of Sayre, but that the armamentarium is not entirely complete and must be modified in part for individual cases.

November 22, 1900.

Therapeutic Use of Salicylate of Amyl. By M. B. Lyonnet. (See abstract from *Lyon médical,* November 18, 1900, in the issue for December 15th.)

St. Petersburger medicinische Wochenschrift, October 28, 1900.

Report of the "Normal Status" Commission. By Dr. A. Kupffer.

Empiricism and Rationalism in Therapeutics.—Professor W. N. Nikitin makes a plea for the empirical treatment of the acute infectious diseases, especially in their beginning, as he believes the diagnosis and prognosis are thereby rendered easier while the subjective condition of the patient is ameliorated.

Berliner klinische Wochenschrift, November 12, 1900.

Contribution to the Symptomatology of Facial Paralysis.—Dr. M. Bernhardt calls attention to the fact that, in two cases of congenital facial paralysis, only the muscles of the lips and chin were still irritable to electricity on the affected side. If the same muscles on the left—the healthy side—were stimulated, especially the triangular and quadratus menti muscles, an energetic contraction of the muscles of the right side took place. This the author regards as symptomatic of facial paralysis. He explains the phenomenon on anatomical grounds. (*To be continued.*)

Autopsy Findings in a Case of Acromegaly.—Professor E. Mendel describes the results of the autopsy in a case which he had long observed. The pineal gland was normal. At the base of the brain near the optic chiasm, a large round-celled sarcoma was found. The thyreoid gland and the spleen were enlarged and a persistent thymus was discovered.

Treatment of Catarrhal Adhesions in the Middle Ear by Intratubular Pilocarpine Injections.—Dr. Fischenich advises injections by means of a catheter of a two-per-cent. aqueous solution of the hydrochloride of pilocarpine into the Eustachian tube. The dose should gradually be increased from eight or ten drops in each tube, to sixteen. Forty or fifty sessions may be necessary in some cases. Temporary pain and vertigo are sometimes experienced. Hearing is improved at once and continues to improve with each injection.

Clinical Value of Schmidt's Method of Testing Intestinal Function. By Dr. H. Philippsohn.

Deutsche Medizinal-Zeitung, November 22, 1900.

Treatment of Typhoid Fever.—Dr. James Barr insists upon a fluid diet until the temperature has been normal for a week. He is not in favor of the use of alcoholic drinks, even in the severest forms of the disease. Sponging and cold compresses are sufficient for mild cases, but the continuous cold bath or a hammock bath, with a continuous stream of tepid water playing on the abdomen, is used in severe cases. Cold compresses over the abdomen sometimes abort œdema of the lungs. The author favors early surgical intervention when perforation has taken place.

November 26, 1900.

Hospital Experience with Tracheotomy in Diphtheria. By Dr. M. v. Cuckovic.

Wiener medizinische Blätter, November 22, 1900.

Contribution to the Study of Certain Postotic Brain Affections. By Dr. Ladislas Hascovec. (*Continued article.*)

Syphilis of the Liver in Adults (*continued*).—Dr. Otto Fischer speaks of the large, hard syphilitic liver, the pseudo-cancerous form, the atrophic and hypertrophic varieties and syphilitic cirrhosis, and the diagnostic signs of each. He advises specific treatment when there is a doubt as to the syphilitic or malignant nature of hepatic disease. In offering a prognosis, the integrity of other organs and the healthy parts of the diseased organ must be considered; and a good prognosis depends largely upon an early recognition of the disease. Calomel, hot sand baths, hot baths, iron, ice and ergot for gastro-intestinal hæmorrhages, tannin and opium for the diarrhœa, and gradually increasing doses of iodide of potassium constitute the main elements of treatment.

Artificial Food Therapy.—Dr. A. Krug recommends from two to four drachms of globon daily in conditions of malnutrition. It is specially serviceable for children.

Double Rupture of the Membrana Tympani Following a Blow upon the Ear. By Dr. T. Zalewski.

Wiener klinische Wochenschrift, November 15, 1900.

Contribution to the Ætiology and Pathology of Fulminant Gangrene.—Dr. F. Hitschmann and Dr. Otto T. Lindenthal report a case of rapid gangrene following a resection of the elbow. Anæmia and anæsthesia of the hand quickly appeared and within twenty-four hours emphysema, with gas in the tissues, was observed. No inflammatory process was present in the tissues before operation, and the patient was perfectly healthy except for the ankylosis of the elbow for which he was operated on. From the infected tissues anaerobic rods were isolated. These the authors regard as the causative factors, not only of the gas, but also of the local death of the tissues and their blood-vessels. The authors describe accurately the pathological findings. They insist upon early amputation, as the extremity is lost anyway, and amputation offers the best chances for recovery.

Closing Defects in the Skull by Bony Heteroplastic Operation.—Dr. K. Büdinger reports the successful transplantation of bone from the femur of a second patient into a defect of the skull, due to the tuberculosis of the bone.

Casuistics of Lipoma of the Intestines. By Dr. Ferdinand Gross.

Deutsche Aerzte-Zeitung, November 15, 1900.

Ovarian Tumors Complicating Pregnancy.—Professor H. Fehling says that when a diagnosis of an ovarian tumor, especially a cyst, is made during pregnancy, an exact scientific diagnosis must be made to determine upon the proper therapeutic course. If a small growth is detected, one must carefully decide what its influence will be upon the pelvis during birth, before proceeding to operation. If the tumor is large, or is growing rapidly, so that complications may be expected during parturition, if there is torsion of the pedicle, or if the mass is incarcerated in the pelvis, the growth must be removed. The abdominal operation is to be preferred, as experience has shown that the vaginal route is likely to bring about a premature birth. The prognosis is usually good, as the patients are mostly young women, and because the tumors are usually small and their removal easy, so that the pregnancy is not, as a rule, interrupted; adhesions and intraligamentous development are not common, and the tendency to torsion of the pedicle during pregnancy does not materially alter the prognosis if the diagnosis is promptly established.

Infection from Cadavers.—Professor Hansemann says these infections can be largely guarded against by care of the hands. Before an autopsy, the nails and cuticle must not be attended to with a sharp instrument, as small abrasions may thus be caused. The hands should be anointed with fat or oil before beginning work. At the conclusion of the autopsy, they are placed in running water until all unclean material is relieved, without rubbing either with soap or without it. The first washing with soap is also done superficially, no brush being used. (*To be continued.*)

Mortality and Morbidity among Physicians. By Dr. Alfred Moeglich.

Centralblatt für Gynäkologie, November 24, 1900.

Chorio-epithelial Tumors of the Vagina.—Dr. H. Schmit reports a unique case of a woman who had an hydatid pregnancy of which she was delivered spontaneously. Four months later she appeared with two tumors of the vagina, one in the anterior wall of the vagina, the other located on the columnæ. The growths proved to be of a chorio-epithelial nature, being deposits from the syncytium of the molar pregnancy. The uterus was healthy. The patient was cured by operation. The author says that there were no deposits elsewhere in the body, although the cases of Pick and Schmorl prove that multiple metastases of chorio-epithelial tumors may develop in the liver, lungs, intestine and vagina, when there is no syncytial growth in the uterus.

Centralblatt für Chirurgie, November 24, 1900.

Aseptic Prophylaxis.—Dr. A. Hammesfohr begins by saying that no method of hand disinfection will to a certainty render the hand that harbors septic germs, aseptic. He therefore advises the use of rubber gloves in addition to thorough disinfection, the avoidance of contamination with septic material as far as possible, and the employment of rubber finger cots for examination of septic cases. He advises, further, scrupulous care of the hands, including the avoidance of hang-nails, keeping the fingernails clean and the skin of the hand smooth and unbroken. Seborrhœa of the scalp, ozæna and carious teeth must also be avoided by the surgeon.

Pyelocystostomy in the Treatment of Hydronephrosis.—Professor O. Witzel, recognizing the free movability of the bladder and the possibility of bringing it near the kidney in the living subject by extreme tension, advises, in cases of nephrydrosis, to suture the bladder against the innominate bone with catgut, so that it becomes a mere tube. The pelvis of the kidney is then punctured and it is anastomosed with the bladder, mucous membrane being sewed to mucous membrane. A permanent Nélaton catheter is introduced into the bladder for purposes of irrigation and catheterization.

Centralblatt für Bakteriologie, Parasitenkunde und Infektionskrankheiten, November 17, 1900.

Bactericidal and Agglutinating Properties of Pyocyaneus Immunized Serum.—Dr. Paul Müller concludes from his experiments that the bactericidal action of the serum of normal guinea-pigs upon the pyocyaneus bacillus does not change, whether oxygen is present or absent. Nonvirulent bacilli are considerably inhibited in growth by normal serum, while virulent types grow just as readily after a temporary inhibition. Normal serum is equally potent aerobically as a bactericidal agent upon the pyocyaneus bacillus, with serum immunized against this germ; but the latter develops powerful bactericidal properties anaerobically. The author found no agglutinating substances in bouillon cultures of the pyocyaneus bacillus; the agglutinating substances of the immunized serum must therefore be developed in the body.

Serum Dissolving the Nuclei of Erythrocytes. By Dr. E. Krompecher.

Influence of Liquid Air upon Bacteria.—Dr. J. Meyer has experimented upon the anthrax spores and the *Staphylococcus pyogenes aureus* with liquid air by spraying the liquid air upon the cultures; by placing it directly upon the cultures; and by placing the tubes in liquid air. In no instance was there death of the bacteria or a loss of their properties.

History of Pseudocysticercus. By Dr. J. Ch. Huber.

Centralblatt für innere Medicin, November 24, 1900.

Action of Distilled Tea and Coffee on Respiration and Circulation.—Dr. C. Binz has conducted a number of experiments to determine these results. He found that the distillate of wasted coffee, free from caffeine, temporarily increased the depths of respiration in man, especially when no food had been ingested for some time. There was no deepening of individual respirations, but a heightened frequency of breathing. Muscular twitchings and mild psychic excitation were also noted. The frequency of the pulse was not affected. The distillate of good Chinese tea had similar, but weaker, effects. The effects of undistilled tea and coffee are probably to be referred to the caffeine they contain and the volatile substances evolved by the cooking.

Gazzetta degli ospedali e delle cliniche, November 11, 1900.

Concerning Acute Uræmic Delirium. By Dr. U. Alessi and Dr. A. Pieri.—The patient was a man, aged forty, who had recovered from an attack of typhoid fever and who was apparently in perfect health, when, after a pilgrimage to Rome, he returned to his native village and suddenly became delirious and violent, so that hypnotics were necessary to keep him quiet. In this condition he was brought to the hospital in Pisa. His face was red, he refused to eat and to answer any questions, his pulse was 90 and his temperature normal. The urine showed the presence of albumin, and the urea was lower than normal. The delirium continued and the patient did not sleep well in spite of hypnotics. Diaphoretics and purgatives were also administered. Kernig's sign was found present on the second day. On the third day the patient was a little more quiet, but the pulse became weak and the respirations more frequent. Toward evening the patient became comatose and died during the afternoon of the following day. The diagnosis was acute uræmic delirium due to parenchymatous nephritis, probably to some extent depending upon the preexisting typhoid infection.

Heredity and Heart Disease. By Dr. A. Borgherini.—The author reports the histories of two families, in order to show the rôle that heredity plays in heart disease. The first history was that of a family of pigeons, which the author observed for two generations. In all the members but one, the autopsy showed cyanosis of the skin, permanence of the aperture of the foramen ovale, and of the ductus Botalli, and a frequency of respiration nearly double the normal. Nearly all the newly born pigeons in this family died in the first few days after birth. A remarkable fact was, that this family of pigeons was isolated for years in such a manner that no outside influences could reach them, and that generation was always the result of a union of brothers and sisters. This fact may have had something to do with the development and the maintenance of the anomaly throughout the two generations. The second case concerns a human family, whose genealogic tree is given for three generations. Of the members who died, six out of nine had heart disease in one form or another, and died suddenly and unexpectedly of heart failure. Of those who are still alive, three out of five have heart lesions. The author does not attempt to explain the mechanism of the process, but believes that the two examples reported show that heredity plays an important rôle in the production of heart lesions.

Chorea of the Heart. By Dr. Paolo Galli.—Under this designation Roger included all affections of the heart, whether organic or functional, which accompany chorea. The author reports the case of a child aged eight years. A systolic murmur of fairly rough quality was heard at the apex and transmitted to the left, and there was a certain amount of arrhythmia in the heart's action, yet there was no tachycardia, no dyspnœa, no palpitation, and the area of cardiac dulness was nearly normal. Arrhythmia and a murmur may be present together or separately in chorea, and it is not difficult to distinguish an arrhythmia, but the murmur is not always distinguishable from a functional *bruit*. In the present case the heart murmur disappeared with the choreic symptoms, and, when seen a year later, the patient showed no disturbances on the part of the heart.

Riforma medica, November 10, 1900.

Oligamnios as a Cause of Prolapse of the Cord and of Injury to the Fœtus. By Dr. Imperiale Pastore.

November 12 and 13, 1900.

A Contribution to the Casuistic of Pulsating Pleurisy. By Dr. L. Innocente and Dr. G. Marseli.—The authors review the literature of the subject, and report two cases of pulsating pleurisy. In one of them the exudate was hæmorrhagic, in the other purulent.

November 14, 1900.

Concerning Progressive Pernicious Anæmia without Nucleated Red Cells. By Dr. Nicola Pane.—The author reports a case of very pronounced pernicious anæmia in which the blood did not show the presence of nucleated red cells. He considers these cases as belonging to a special group of anæmias, and cites two cases reported by Ehrlich, one case reported by Engel, and one other case reported by himself last year, in which the same result was obtained on blood examination. He concludes that this group of anæmias is characterized by a progressive course and by a fatal issue, and is probably due to an infectious agent. These anæmias are distinct from the type of pernicious anæmia described by Biermer.

November 15 and 16, 1900.

The Latest Researches Concerning Enlargement of the Spleen as a Precursor of Tuberculosis. By Dr. Gabriele Tedeschi.—The author emphasizes the significance of enlarged spleen as a premonitory symptom of tuberculosis, and says that, in future, the studies on tuberculosis should be directed toward establishing a means of early diagnosis.

Vratch, November 14, 1900 (November 26, N. S.).

Concerning the Antipyretic Method of Treatment. By Dr. V. N. Nikitine.—The substance of this article is that the antipyretic drugs that have been discovered in such great number of late years are useless, and in many cases even harmful. Fever being a reaction of the organism against infection, should therefore not be treated energetically with antipyretics, whether drugs or hydrotherapeutic measures. The author's conclusions are based upon the following statements: 1. The danger of a fever is not to be measured by the height of the temperature. 2. The lesions in the parenchyma of certain organs, such as the kidneys, the liver, etc., which result from infectious and other diseases, are not due to the presence of fever. 3. The functional disturbances of the heart and of the brain which so frequently cause death in acute febrile conditions are not due to the fever.

Syphilitic Angina Pectoris. By Dr. M. J. Breitman.—The author emphasizes the importance of syphilis in the ætiology of angina pectoris, and the usefulness of antisyphilitic treatment in cases that have syphilis for their basis. He distinguishes a nervous form of syphilitic angina, which is distinct from hysterical angina pectoris. The two conditions may be distinguished as follows, according to Breitman: In hysterical angina the attacks come on, as a rule, at night; on examination, we find hysterical areas on the skin of the chest, and the attacks begin with paræsthesiæ of this area, and end in tears, sobs, and other manifestations of excitement. The syphilitic attack of the nervous type is preceded by fatigue, not by excitement. It is very important to distinguish the nervous syphilitic type from the organic syphilitic angina, which depends upon a lesion of the heart muscle itself. The chief characteristic of these is the presence of periodic attacks of angina with dyspnœa between the attacks.

Disturbances of the Organism as a Result of Psychical Salivation. By Dr. P. P. Hellat.—The disease which this author describes is characterized by the following course. At first a perfectly healthy person begins to expectorate, and the expectoration becomes a habit. In the beginning, the secretion of saliva is not very copious, but gradually it increases until the patients expectorate saliva by the glassful. The salivation becomes so great that it continues day and night without interruption. In addition, the patients suffer from insomnia, headache and a number of neurasthenic symptoms. The author reports a number of such cases. The salivation continues indefinitely if not checked by appropriate treatment. The treatment consists chiefly in directing the patient to cease expectorating. This often meets with great objection, and some patients will not consent to swallow the saliva as it is secreted, asserting that it gives them a feeling of nausea. It is better, in order to avoid explanations in such cases, to prescribe dilute hydrochloric acid and to ask the patient to swallow some of the medicine every time they feel the desire to expectorate. The salivation is also accompanied by disturbances in the nutrition of the patient, especially if the trouble is allowed to go on for a long time, and the treatment has restored the patients to health in all cases thus far recorded. The origin of the trouble is probably psychical.

Glasgow Medical Journal, November, 1900.

Introduction to the Course of Lectures on the Practice of Medicine. By Dr. T. McCall Anderson.—An exposition of the author's belief that "The real physician," as Broussais says, "is the one who cures: the observation which does not teach the art of healing is not that of a physician; it is that of a naturalist." The advances in preventive medicine in recent years are illustrated, as are also the various idiosyncrasies of different patients, in regard to toleration of certain drugs. The importance of making a correct diagnosis of the disease as distinguished from the affection is insisted upon, and then, as illustrative of the advances which have been made in medicine in recent years, the discovery that myxœdema is a distinct pathological entity, the discovery of the Klebs-Löffler bacillus and of the *Plasmodium malariæ* are commented upon.

Ocular Headache. By Dr. James Hinshelwood.—Stevens, out of a hundred consecutive cases of chronic headache, cured sixty-one by correcting the ocular defects, while Gould finds seventy-five per cent. of all headaches and ninety-five per cent. of all sick headaches due to eye strain. The author insists that in every case of obstinate headache which does not yield to medical treatment, the eye ought to be examined as a matter of routine, even in the complete absence of subjective ocular symptoms.

Tendon-lengthening in a Case of Volkmann's Ischæmic Paralysis. By Dr. George Henry Edington.

Auscultation in the Management of Labor. By Alexander Maclennan, M. B., C. M., L. M. (Rotunda).—The discovery by Frankenhäuser that the female fœtal heart beats more rapidly than the male, and the mathematical calculation of Cumming that the male child gives nineteen beats for each pound of its weight, while the female child gives 20.2 beats to the pound, have led the author to speculate ingeniously on the more accurate prognostication of the sex of the uterine inhabitant. He believes that such prognostication cannot go beyond the realm of surmise, but by attempting it, as is invariably done, a little wholesome humor is introduced into what would otherwise be tedious work.

Absence of the fœtal heart sounds contraindicates the Cæsarean section. Finding the maximum intensity above the umbilicus is suggestive of breech presentation. Maximum loudness below the umbilicus indicates a cranial presentation. Funic souffle, apart from the suspicion of winding of the cord round the child's neck, has little bearing on the management of labor.

Three Cases Cured by Surgical Operation in Johnstone District Hospital. By W. Westwood Fyfe, M. B., C. M.—These cases were one of strangulated inguinal hernia (right) in a female, in which Macewen's operation was done, one of double oöphorectomy for severe ovarian pain, and one of oöphorectomy for prolapsed ovary. No unusual features characterized any of them.

American Gynæcological and Obstetrical Journal, November, 1900.

The Relative Advantage of Vaginal and Abdominal Section: An Illustrative Case. By Dr. B. F. Baer.—Opinion is so generally settled in favor of abdominal section, that there is danger of overlooking the fact that occasionally a case is met with in which life may be saved by means of vaginal section, as a preliminary operation of expediency.

The patient in the author's case, while in a stooping posture, was seized suddenly with a very sharp pain in the right iliac region; was placed in bed in great distress and very pale and faint. For five days, and before the author was called in consultation, the temperature ranged from 100° to 130° F., and, on his advent, the pulse was 140 and feeble. Upon examination it was clear that pelvic suppuration and general septic intoxication were the urgent symptoms. The sudden pain and collapse were thought to be due to hæmorrhage from rupture of tubal gestation, or of a blood-vessel in the broad ligament. The tumor in the right iliac space resembled a fibrous tumor of the uterus. An operation of considerable magnitude was necessary to remove the pathological condition by abdominal section, and, as the patient could not have stood it, the author simply made a vaginal section, evacuated the septic pus, and irrigated with saline water. Nineteen days later, abdominal section was performed. At first a pus cavity was encountered; next a cavity from which was evacuated probably a pint of disintegrated blood-clots, confirming the original diagnosis of concealed hæmorrhage. A nodular fibroid with a broad membranous attachment to the side of the uterus and very vascular surroundings, was removed. Complete recovery resulted.

Further Contribution to the Study of Pelvic Hæmatocele and its Relation to Tubal Pregnancy. By Dr. George Tucker Harrison.—Our views in regard to the pathogenesis of pelvic hæmatocele have undergone a complete transformation within the past few years, in consequence of the increase in knowledge acquired by the greater frequency of the performance of the operation of laparotomy.

We now know that in the preponderating majority of cases, estimated by Fehling to be ninety-five per cent., hæmatocele is due to tubal pregnancy; and, further, that incomplete tubal abortion with hæmatocele constitutes the most frequent termination of such pregnancy. Rupture is rare as compared with tubal abortion, and the generally accepted view to the contrary must be reversed. The contentions of the author seem to be effectually sustained by the illustrative case which he furnishes.

Injuries to the Bladder and Ureters in Radical Surgery of Cancer of the Uterus. By Dr. J. Wesley Bovée.—The author does not believe that Kelly's plan of ureteral catheterization as a preliminary to radical operation for cancer of the uterus is advisable. His plan has been to isolate the ureter, except from the peritonæum, early in the operation, by making an incision in the peritonæum along its course from the division of the iliacs to the bladder. Then by passing a few pieces of suture material under it along its course and tying the two ends of each together, we have the means for pulling it up into view at any time and without injury.

Sarcoma of the Uterus, Associated with Fibroma of the Round Ligament; Report of a Unique Case. By Dr. John D. Clark.—Sarcoma of the uterus is an extremely rare affection—only 154 cases of any sort being on record. The classification consists of two types: Sarcoma of the mucous membrane itself, and sarcoma of the tissues of the uterine cavity. In the author's case the tumor was a sarcoma, not of the mucosa, but of the uterine wall. Instead of having invaded the wall, the tumor pushed down in the direction of least resistance and proliferated.

A Fibromatous Uterus in Labor. By Dr. Frank A. Stahl.—The author's patient was first seen in the fourth month of pregnancy, with a pedunculated fibroid springing from the cervicocorporeal junction, producing at one time great pain and serious reflex disturbances from pressure against the superior strait to the right anteriorly; and after an office attention of three weeks the patient went on to normal labor.

Report of Interesting Cases. By Dr. Frank W. Talley.—The first case is of gonorrhœal salpingitis with coexisting pregnancy. From the pathological condition the author deduces the view that the ovum impregnated had been erupted from the left ovary, that it had subsequently found its way to the fimbriated end of the right tube, and had found development in the right uterine corner. That the gonorrhœal infection had passed through the uterus between the decidua reflexa and serotina, and had infected the left tube, the right tube being barred by the attachment of the impregnated ovum. Afterward, the pregnancy continued, the tubo-ovarian abscess developed on the left side, with infection of the pelvic peritonæum. The right tube became infected from the fimbriated end toward the uterus and showed all grades of invasion until, near the uterus, it appeared almost healthy.

The interest in the second case is in the diagnosis. An ovarian cyst was carried high in the abdomen by the pregnant uterus, formed attachment to the liver, and gave symptoms immediately after the delivery through the shrinkage of the uterus and tension on the pedicle.

Ophthalmia Neonatorum; its Pathology, Prophylaxis and Treatment. By Dr. John E. Weekes.—This is a text-book article on the subject, of moderate interest.

A Further Contribution to the Study of Full-term Ectopic Gestation. By Dr. Edwin B. Cragin.—The viable ectopic fœtus is worth saving. Within limits, attempts to save the child do not seriously increase the mortality or morbidity of the mother; hence, in the treatment of full-term ectopic gestation the child should receive more consideration than it at present does.

Quarterly Medical Journal for Yorkshire and Adjoining Counties, November, 1900.

On Gonorrhœal Rheumatism. By Dr. George Lorimer.—The different descriptions of gonorrhœal arthritis depend on the fact that a uniform type of ordinary rheumatism has not been taken as a standard of comparison and contrast. Many of the alleged differences are therefore not essential distinctions, but are simply dependent on the degree of pyrexia. Excluding cases of ordinary acute rheumatism occurring during gonorrhœa, the author classifies three distinct forms of gonorrhœal arthritis: 1. The rheumatic form, of migratory type, with acute initial pyrexia and acid perspiration; cardiac complications may appear. 2. The subacute type, or true gonorrhœal arthritis, with liability to chronic articular changes, sometimes suppuration and marked atrophy, cardiac complications seldom. 3. The chronic asthenic type, uni-articular in scrofulous subjects, with hydrarthrosis and frequently effusion of seropurulent fluid. The toxæmic hypothesis, in the author's opinion, effectually explains the phenomena of gonorrhœal arthritis.

A Contribution to the Literature of Gastric Surgery, Including Notes of a Series of Cases. By Sinclair White, M. Ch., F. R. C. S.—Surgical enterprise of late years has been more concerned with the stomach than with any other viscus, and the surgeon is now a copartner with the physician in the treatment of many disorders of this organ. Foremost among these stands gastric dilatation secondary to pyloric obstruction. The most simple and certain method of demonstrating this condition is to pass a soft-rubber tube into the stomach and inflate it with air by means of a Higginson's syringe. The diagnosis of the obstructing agency is sometimes easy, but more often difficult. In doubtful cases, assume malignancy and operate at once. Adhesions play an important rôle. Five of the author's cases are detailed, and a brief history of the surgical attempts to overcome benign obstruction of the pylorus is given. Hahn's method of dilating the pylorus by invaginating the anterior wall of the stomach through it in front of the forefinger is useful in dealing with spasmodic conditions of the pyloric ring. Mikulicz's operation of pyloroplasty at the present time may be said to be the operation of election. Shock and sepsis are the two chief dangers of gastric surgery. Large hypodermic injections of strychnine should be given before the operation is begun.

Static Electricity in X-ray and Therapeutic Work; Description of Machine. By Dr. Sidney H. Snell.—The author has been impressed, while in this country, with the very good results obtained by the application of static electricity, and in his subsequent practice has found it of great aid for its "undoubted tonic and sedative effects." Muscular rheumatism, sciatica, etc., are benefited, and he believes that excellent results can be obtained if one is prepared to undergo the necessary trouble and expense.

A Case of Myositis Ossificans Progressiva. By George Wilkinson, B. A., M. B. (Cantab.), F. R. C. S. (Eng.).—Another case of this extremely rare affection. Treatment is of no avail, and the prognosis is hopeless. Death usually results from increasing fixation of the thorax, resulting in suffocation, or from some intercurrent disorder, usually of the lungs, favored by limitation of respiratory movement.

A Case of Poisoning from Belladonna Plaster. By Dr. W. Makeig Jones.—Speech was incoherent; there was slight staggering of the gait; the pupils were dilated and insensible to light; constant attempts at vomiting occurred; there were tingling sensations all over the body; there was considerable erythematous swelling of the fingers. These were the symptoms, and, on removing the plaster, the skin underneath was found swollen and covered with a punctiform scarlet eruption. The reporter raises the question as to whether or not these plasters may be fortified by the addition of alkaloids after their manufacture.

Report of a Case of Deciduoma Malignum. By Daniel Pettigrew, L. S. A. (Lond.).

A Case of Traumatic Cephalhydrocele Subsequently Becoming Ossified. By Dr. Joseph Beard, M. R. C. S., L. R. C. P.

Plague Questions. By Dr. John Robertson.—The general symptoms to be looked for are, during the period of invasion, the sudden onset of illness with shivering, followed by fever, which is not necessarily high. With this frequently there are vomiting, frontal headache, photophobia, and pain in the epigastrium. While typical cases are easily diagnosticated, it is the early, mild cases, occurring when plague is not suspected, that form the really important and difficult ones for diagnosis. Careful bacteriological examination of material from the glands or from specimens of sputum in the pneumonic cases will be of great assistance.

Proceedings of Societies.

AMERICAN LARYNGOLOGICAL ASSOCIATION.

Twenty-second Annual Congress, Held (in Conjunction with the Congress of American Physicians and Surgeons) in Washington, on Tuesday, Wednesday, and Thursday, May 1, 2, and 3, 1900.

The President, Dr. Samuel Johnston, of Baltimore, in the Chair.

(Continued from page 964.)

Recrudescing Angina.—This was the title of a paper by Dr. Emil Mayer. (See page 1083.) Dr. J. E. Boylan, of Cincinnati: During the reading of Dr. Mayer's paper I was forcibly struck with the resemblance of the symptoms in his case to the few cases of chronic herpes which are recorded, two of which have come under my observation. As I now recall them, these presented almost exactly similar features to his—the location and character of the membrane, the fact that he was able to detect vesicles, the absence of constitutional symptoms in the protracted, and the fluctuating course of the disease, suggest chronic herpes very strongly, and for that reason the paper is especially interesting to me. As far as I am aware, no micro-organism has as yet been held accountable for chronic herpes, though various symptoms, such as the fading of the attack at one point and its development at another, seem to indicate such activity. May not the bacillus of Friedländer have been the underlying cause in one or the other of these cases? I hope Dr. Mayer will give us his views as to the possibility of a relation of the two affections in closing the discussion.

Dr. Henry L. Swain, of New Haven: I should like to inquire of Dr. Mayer whether those cases in which the Friedländer bacillus was found in the membrane were all of the chronic recurrent type.

Dr. A. W. de Roaldes, of New Orleans: I should like to ask Dr. Mayer if the membranous formation was always found in the throat or if, on the contrary, it was observed at any time in the nasal passages.

Dr. Jonathan Wright, of Brooklyn: Dr. Boylan in his remarks spoke of the resemblance of these cases to those of herpes. I did not hear all of the paper, but these cases resemble some I have seen pictured under that name in charts. The bacillus of Friedländer is found frequently in acute inflammations of the throat and nose of all kinds.

Dr. Mayer: As regards the question of herpes, there is no connection whatever between herpetic eruptions and this class of affection. It is known that herpes is a very obstinate affection, yet it has its limitations and is by no means so persistent as this disease. All the cases that have been reported, and altogether they number but fourteen, while they were of a persistent nature, were not of the chronic recurrent type, and that was the remarkable condition which existed here. Membrane did not exist anywhere in the nose, as I understood Dr. de Roaldes to ask about, but was limited entirely to the soft palate, and the posterior pharyngeal wall, although in one or two cases it existed in the larynx and produced marked stenosis.

I should like to say, too, that, according to the statements of those who have made a study of this class of affections, the bacillus of Friedländer does not exist in acute conditions, but in the chronic diseases, as in rhinoscleroma, etc., and this is not uncommon.

This case is remarkable in that it presented a condition that has been seen by a great many observers, and each and every one of them was compelled to say that he had never seen the like. Large quantities of membrane formed, with peculiar exfoliation, leaving apparently healthy tissue, then two or three days later, or at most fourteen days, the patient would go through another attack, when there would be the formation of membrane, and exfoliation, leaving again apparently healthy membrane. This is something unusual, and the diagnosis made in this case, that it was due solely to the bacillus of Friedländer, seemed to be the only possible one, in view of the history and the bacteriological examination.

A Plea for the Early Naked-eye Diagnosis and Removal of the Entire Organ with the Neighboring Area of Possible Lymphatic Infection in Cancer of the Larynx.—This was the title of a paper by Dr. John N. Mackenzie. (See page 397.)

A Consideration of the Statistics of the Operations

for the Relief of Malignant Disease of the Larynx.—Dr. D. Bryson Delavan presented this paper. (See page 449.)

The Surgical Treatment of Laryngeal Cancer.—This was the subject of a paper by Dr. J. Solis-Cohen. (See page 409.)

Dr. Swain: In view of the rather non-encouraging statistics which Dr. Delavan has given us, I think we ought to look upon the brighter side of the subject, if there is one to be presented, and I wish to relate a little experience we had in New Haven some years ago, which I took the liberty of reporting before the association at its Washington meeting. It is possible to do a complete and thorough laryngectomy by a combination of the Solis-Cohen and Kocher methods, and you can have the patient perfectly comfortable from the start. He will be able to swallow without the gushing of the fluids through the opening, as used to be the case in the old days when an artificial larynx was worn. Although the vocal sounds produced in this case were more or less guttural, they were sufficiently distinct for the patient to make himself understood, as in the case Dr. Solis-Cohen showed years ago. A preliminary tracheotomy was performed. The glands in the neck were noticeably involved, and there was a good deal of turgescence about the larynx. I think it best to do a preliminary tracheotomy in these cases, as you can give much comfort to the patient in the way of keeping the trachea in place. The preliminary tracheotomy, by relieving congestion around the larynx and in the neck, caused the disappearance of the glands, so that we were unable to find all of them at the operation. The patient recovered. The operation was done after the manner suggested by Dr. Solis-Cohen's case. The epiglottis was stitched to the upper end of the œsophagus, so that all connection between the throat and the wound was closed off. The wound in the neck was sewed up and united by first intention. During the process of healing there was a little dragging down of the trachea. Twelve hours after the operation the patient was able to swallow sterilized fluids. We kept up rectal alimentation for two days, then the patient swallowed sterilized fluids and other nourishment without the introduction of an œsophageal tube. This is a great advantage over the old method of operating, and I think this feature cannot be too strongly emphasized in discussing the surgery of the larynx. If in this case we had succeeded in getting at the glands that we had lost sight of, we should have saved the patient's life. The patient lived for a year and a half, and then died of recurrence of the disease in the neck, due to our having left the mass of glands of which I have spoken. The patient succumbed finally to inanition or general cachexia.

Since that patient was operated upon, I have had more confidence in advising a patient, if he has any trouble with the larynx of a malignant nature, to have it removed by radical methods. If the disease is limited, we might at least try endolaryngeal methods, but in other cases we should advise nothing less than complete laryngectomy, for in this way the patient can both be made comfortable and be absolutely rid of the disease.

Dr. C. C. Rice, of New York: Dr. Mackenzie has properly called our attention to the vital matter of early diagnosis of cancer of the larynx and the necessity for a radical operation for its removal. There is another phase of the subject just as important, and one which involves great responsibility, and that is, that the laryngologist, who is the final arbiter as to the condition of the larynx, should not turn over his cases for extirpation of the larynx to the general surgeon until he is absolutely sure of his diagnosis. This is a very important phase of the subject. I believe there are laryngologists who are inclined to operate too early, who are inclined to consider almost any small swelling on the side of the larynx as cancerous, or, if not cancerous, as calling for the radical operation. When we hear the very discouraging statistics that have been submitted by Dr. Delavan, and know the discomforts of these patients after operation, it seems to me that we should move cautiously before concluding that the case is one demanding extirpation. I am positive that there are many cases which cannot be diagnosticated accurately with the laryngeal mirror, which cannot even be diagnosticated by carefully studying the history of the patient, and time only will decide as to the necessity of a radical operation in such cases. I could mention, as all of you can, numerous cases of small interarytænoid swellings, not tuberculous in character, which, so far as we could conclude after carefully studying the cases, were not syphilitic, and which perhaps might have been turned over to general surgeons for total extirpation of the larynx. The general surgeon is ready to perform this operation when we ask him. He does not know from the general appearance of the case as to whether it demands partial or total extirpation of the larynx. There are many patients whom we should hesitate to condemn as cancerous until we have obtained further data on the subject. The patient should be put under a course of iodide of potassium, a careful study of the progress of his case should be made, and the question of whether the lymphatics had become involved or not, decided. All these things should be considered, and the patient should be saved the annoyance of this tremendous operation until we are absolutely sure of our ground.

Dr. Mayer: It would be well to discuss the question raised here as to whether the laryngologist ought to attempt the complete removal of the larynx by himself unless he is a general surgeon. It has been my experience during the past three years to have seen four cases of comparatively small growths within the larynx that seemed to warrant removal. In fact, in one instance the growth was so large that a tracheotomy was hastily done. The patient, a woman, came to me from Nova Scotia and she wore a tube at the time. A diagnosis of epithelioma was made, an operation was advised, and she was taken to the Presbyterian Hospital, in New York. The operation was begun, and it was found that there was a large mass both above and below in the trachea coming from the œsophagus, so that the surgeon decided not to proceed any further with the operation. I recall two other cases in which the disease in the larynx was only sufficient to show that a pathological condition existed there, but it had its origin in the œsophagus.

What shall we do in regard to papilloma? This is an important question. I have had a peculiar opportunity lately of observing the case of a man with a growth upon the vocal cord. The growth had all the appearances of the ordinary papilloma. Attempts at its removal were made, and I succeeded in removing piecemeal various sections of what was considered to be a papilloma clinically and from pathologists' report. The patient passed from my hands, ostensibly to go South, but I afterward learned that he had placed himself under the care of a practitioner who made irritating applications to the larynx. In less than three weeks' time he again presented himself, this time with a large growth situated below the arytænoids. It will be interesting to note the outcome of this case. It looks, to my mind, as if the original growth was not papillomatous, but cancerous, and the extension of the disease was hastened perhaps by the manipulations that were made to remove it. It is because of the uncertainty in regard to these cases that a discussion of this kind becomes important, in order that we may decide as to how far we should go with our endolaryngeal method before proceeding to complete extirpation, with its annoyance and chances of recurrence, of which we have heard to-day.

Dr. A. B. Thrasher, of Cincinnati: Notwithstanding the very positive remarks of Dr. Mackenzie, in whom I have the utmost confidence, I should hesitate to lay aside all the benefits which would accrue to me and to my patients from a careful microscopical examination of a small endolaryngeal growth. It seems to me that the harmful results of the removal of a small portion of the growth by a sharp-cutting forceps are not sufficient to justify me in delaying the accurate determination of the character of this growth for a long enough time to be certain what it is by a macroscopical examination of the specimen. Whether that will be the case in the future, I do not know.

In my heretofore observed methods of operation it has been my custom, if I could do it without any apparent danger or without much irritation of the larynx, to cut off a portion of the growth and give it to a microscopist for examination. I find the microscope of great assistance to me in the diagnosis of these growths, and I am governed largely by it in my subsequent treatment of the case.

Dr. W. K. Simpson, of New York: I take somewhat the stand that Dr. Thrasher does in reference to the use of the microscope. I think it would be a very unwise thing, unless a laryngeal cancer was very evident, to have no microscopical examination made. If any operation is advised at all, it would be unwise to extirpate the larynx without having made a microscopical examination. I do not think any one is able to make a positive clinical diagnosis of malignant disease of the larynx in its incipiency. I am firmly convinced that where we can see these cases of laryngeal neoplasms early, whether the growths are benign or malignant from their appearance, it is our duty then and there to remove the neoplasm by endolaryngeal methods. Malignant growths do exist that may be removed perfectly by endolaryngeal methods.

I recall one case which I reported before the Laryngological Section of the New York Academy of Medicine, a report of which has just been published. In this case the tumor had all the appearances of a papilloma. It was of a distinct, pearly white color, which is very suspicious of malignancy. I removed it thoroughly, as I thought, and had it examined, and the report was that it was a papilloma. It recurred very rapidly, indeed. I operated again and removed the diseased tissues more deeply than during the first operation, and one of our best pathologists reported that it was in all probability an epithelioma. It grew slightly again, and I again removed it and cauterized it deeply, and now, after a period of four years, there has been no recurrence of the growth whatever. I do not know just what would have happened if that case had been allowed to progress without intervention. If I had seen the case six months or a year afterward, when the disease was more fully developed, and the tumor had been removed by any of the methods mentioned, I believe the patient would have died. I think we had better resort to endolaryngeal operations at the present time in all cases where there is a small and isolated growth, because we have the advantage of the use of cocaine and of the suprarenal extract. These two things allow us to go to the very spot, without injuring the other tissues. I believe with Dr. Cohen in the use of the deep-cutting forceps, so that we can get well under the growth.

Unfortunately, I have been associated with several cases of laryngeal carcinoma, and the patients have all died. I have made the diagnosis; expert surgeons have done the operations, and they have terminated fatally. Considering my experience, I have almost come to the conclusion never to advise extirpation of the larynx. There is something in extirpation of the larynx which has a halo of fatality about it. I do not think the average laryngologist is capable of performing a laryngectomy. We have not the surgical manipulation, we have not the aseptic habit, nor the everyday training of a general surgeon. I believe the larynx should be removed only by a competent general surgeon under the best aseptic principles. We can guide him; we can associate ourselves with him. The after-treatment is of the most important consideration.

I had a sad experience in a case only a few months ago. A man, robust, healthy, sixty years of age, had a well-marked isolated carcinoma of the right vocal cord. I did not think the growth could be removed by the endolaryngeal method without several bites of the forceps. The patient was operated on by an expert surgeon, and the tumor was extirpated by means of a laryngeal fissure. The man died in five days, of septic pneumonia. He would have lived a year easily if nothing had been done. So it has been my experience in all cases that I have had anything to do with, that where extirpation of the larynx has been undertaken, the patients have died, and I am getting opposed to it.

Dr. J. P. Clark, of Boston: In connection with the discussion on these papers, I wish to report the condition of a patient whose case I reported two years ago. The patient was operated on three years ago last January for carcinoma of one vocal cord. Just before coming to this meeting I wrote the patient and received a letter from him in reply stating that he never felt better in his life, and that he had a reasonably good voice. In his case thyreotomy was done, with the removal of the soft tissues on the affected side of the larynx, as well as a portion of the soft tissues on the other side. I suppose the ventricular band on the unaffected side still remains, and its apposition to the other side of the larynx cavity produces the voice.

Dr. Mackenzie: Of course, I expected more or less opposition to the views advanced in my paper. I should like to furnish Dr. Delavan with my statistics of complete extirpation of the larynx. They consist of three dismal failures. I will never do the operation again without the removal of the neck lymphatics. Unless we remove the lymphatics of the neck, we might as well not operate at all. There is no greater liar than statistics, and the paper of Dr. Delavan has shown how absolutely chaotic and crude they are in some cases. I do not believe that in ten years from now you will find a first-class surgeon who will consent to partial removal of the larynx. I believe that in ten years from now you will find laryngeal surgeons who remove cancerous growths through the mouth will be laughed at. The fight is now on, the same old fight we have had in the case of cancer in other organs. I do not see how it is possible to remove a cancer by the endolaryngeal method. You cannot be sure that you have perfect control of the disease. You are confronted with uncertainty. If you do not remove the entire disease, your patient is liable to die of auto-infection, and practically it is almost murder.

I should be guided by the presence of infiltration as to the extent of the operation I should do. After infiltration has occurred from a minute growth, we know that there is immediate danger of infection of the organ elsewhere. It becomes a serious matter after infiltration has taken place whether we accomplish any good at all except by the complete operation.

In regard to septic poisoning after these operations, we have had no trouble of the kind at the Johns Hopkins Hospital. They have made two incisions, one in which they place the tracheotomy tube, and one slightly above it in which they place the sponge. They have done many of these operations with the patients in the Rose position, and I do not think they have had a case of septic pneumonia.

In regard to the question of preliminary tracheotomy, we have found that it does not increase the chances of the patient for recovery. It is open to the objection that it subjects the patient to two operations, and a vital objection to it is that it renders an aseptic second operation absolutely impossible. In the presence of a suppurating wound it is impossible to have an aseptic field of operation.

With reference to the descent of the trachea into the wound, we have not had any trouble from that accident so far as I know. The epiglottis has been frequently retained in operations on the larynx, without any serious result. The patients after total extirpation of the larynx have swallowed fluids through an œsophageal tube as a simple matter of routine. The great danger of operating through the mouth, as Dr. Solis-Cohen suggests, and as I fully explained in my remarks, is that of auto-infection.

I fully agree with Dr. Rice and with Dr. Mayer that the general surgeons should do operations of this kind, because they are the men who are in constant touch with this work. These operations should be undertaken by men who are accustomed to doing major surgical work every day.

In regard to those cases which have been referred to by several of the members as papilloma, we should not forget the fact that a great many cases of so-called cancer are simply papillomatous growths. Sometimes we find a growth with a large mass of epithelial cells in it, and the pathologist and operator immediately rush to the conclusion that it is epithelioma. A portion of the growth or section may by a microscopical examination be shown to be malignant, but the major portion of the growth is benign. The case reported by Dr. Mayer simply supports my contention as to cancer of the larynx.

I have already answered Dr. Thrasher's objection in the body of my remarks. The objection to a microscopical examination is that it subjects the patient to the danger of auto-infection; it stimulates the local growth of the cancer. I do not speak theoretically on this subject, but from a long and sad experience in the treatment of this disease.

Dr. Simpson said that no one was able to make a positive diagnosis of malignant disease of the larynx in its incipiency. I cannot agree with him. In the cases reported by me in which the larynx was removed I made the diagnosis early without microscopical examination, and my object in insisting strongly on the naked-eye diagnosis method was to encourage and stimulate the members to do likewise. Dr. Simpson's patient died because the lymphatics of the neck were not removed. I do not think such an operation as he has described is justifiable in cancer of the larynx. Nothing short of extirpation is the most radical operative procedure which we should advise in cases of cancer of this organ.

Dr. SIMPSON: I should like to ask Dr. Mackenzie as to the statistics of the results of cases of operation for cancer of the larynx at the Johns Hopkins Hospital in which extirpation of the organ was resorted to.

Dr. MACKENZIE: I have given them already in the first part of my remarks, namely, three dismal failures.

Dr. D. BRYSON DELAVAN, of New York: Notwithstanding the numerous causes of disappointment in connection with these cases, successful results are by no means unique. I regret that I am not able to exhibit a patient operated upon at the Memorial Hospital, New York, for partial laryngectomy, who is alive and well and engaged in active business now, nearly four years after the operation. In studying this subject, three practical points have yet to be fully considered: 1. Whether, on the whole, operation is ever justifiable, in cancer of the larynx, or not. 2. What are the best methods for the removal of a part or the whole of the diseased larynx. 3. Who is the best qualified operator to deal with this disease. The general surgeon, accustomed to certain methods of surgical technique, has not always the best qualification for these special cases. Some of the most brilliant operative work in cases of laryngeal cancer has been done by members of our own specialty. Five years ago I indicated that, both for the welfare of the patient and in the interest of science, the indiscriminate performance of capital operations upon the larynx should cease. I did this because of the many instances in which inexperienced operators had tested their ability upon one or two cases, under unfavorable conditions as to personal experience and as to the means for successfully carrying out the after-treatment of the case. The records of the operation would amply sustain this view, while the number of failures which have not been put on record would add overwhelming force to its truthfulness.

In discussing the remarks of those who have already spoken, I cannot go so far as Dr. Mackenzie in condemning operative work. I have seen personally enough cases in which marked relief has been afforded by a successful operation to more than warrant the performance of it. I believe, too, that, even if the proportion of cases in which life has been extensively prolonged is small, nevertheless, such cases have existed and have well warranted the surgical efforts expended upon them. There is no doubt that the experienced observer can detect in most instances characteristic signs of malignant disease long before it has been demonstrated as such by the microscope. I heartily agree to the objection raised to the attempted removal of fragments of the growth for microscopical examination. Such examinations are proverbially unsatisfactory, while the damage to the diseased parts is positive and serious. It seems to have been practically demonstrated that partial resection of the larynx leaves the patient in far better condition than most operations for the total extirpation of the organ. Such, indeed, has been the result of my own observation in the case of many patients, operated upon both in this country and in England. Extensive operations for the removal of lymphoid glands, whether supposedly diseased or not, are theoretically correct. Practically, they increase the possibilities of surgical shock and infection, and by so much impair the patient's chances for immediate recovery.

The question of early tracheotomy, raised by Dr. Solis-Cohen, has always greatly interested me. I am more and more firmly convinced of the great practical value of his views upon this subject. While early tracheotomy is not advised by some of the ablest general surgeons of the day, it is certainly right in principle and, according to the best light of experience, correct in fact. The one valid argument urged against it, namely, the danger of infection, is unfair, for it is possible in most cases to open the trachea at a date so far in advance of the major operation as to admit of complete healing, and thus remove any risk of sepsis. Even if there were some slight danger of this kind, it would be far overbalanced by the great advantages which Dr. Solis-Cohen has so accurately and forcibly pointed out. Not only the fixation of the trachea to the sides of the wound, but the education of both the trachea and lungs under the new conditions of breathing and the accommodating of the whole region, especially of the pneumogastric nerve, to the changed order of affairs are considerations too important to be lost sight of. I cannot help feeling that the recognition of the value of this suggestion would have saved several lives within the limits of my own personal experience.

It is discouraging to think that, with all the effort expended in the study of the relief of cancer of the larynx, not more advance has been made. As I have often before said, successful progress must depend, first, upon the scientific application of the best methods already known, by those best qualified to employ them in cases skillfully selected for operative work; secondly, upon careful records of all work so done, and, thirdly, upon the fact of all results, whether good or bad, being faithfully and honestly reported. Until some such system is carried out, we cannot arrive at any but unsatisfactory results, for such deductions as may be made will only tend to mystify, if not actually to mislead.

Dr. Solis-Cohen.—I wish to say, in connection with the technique in the case I described, that the patient was able to sit up on the fourth day. On the tenth day he was able to get up, and a little later he went to his home, a few hundred miles away. I usually insist upon taking out the larynx and the lymphatics. When a preliminary tracheotomy is done, the glands should be removed at that time.

(*To be continued.*)

Miscellany.

The Marion-Sims and the Beaumont Medical Colleges to be Consolidated.—All arrangements have been completed for carrying out the consolidation of the Marion-Sims College of Medicine and the Beaumont Hospital Medical College of St. Louis, the amalgamation to become effective on May 1, 1901. The terms of the consolidation contemplate a utilization of the entire teaching force of the two institutions, and a union of their clinical facilities and laboratory equipment. The old Beaumont building at Jefferson Avenue and Pine Street will be sold, and the Marion-Sims building at Grand Avenue and Caroline Street, with new additions already projected, will be used by the new Marion-Sims-Beaumont College of Medicine.

American Electro-therapeutic Association.—The following are the recently elected officers of the American Electro-therapeutic Association: Dr. Ernest Wende, president, 471 Delaware avenue, Buffalo, N. Y.; Dr. Frederic H. Morse, first vice-president, Melrose, Mass.; Dr. D. R. Brower, second vice-president, Chicago, Ill.; Dr. George E. Bill, secretary, 255 North street, Harrisburg, Pa.; Dr. R. J. Nunn, treasurer, 119½ York street, Savannah, Ga. Executive council: Dr. Robert Newman (1 year), 148 West 73d street, New York City; Dr. G. Betton Massey (1 year), 1831 Chestnut street, Philadelphia, Pa.; Dr. Charles R. Dickson (2 years), 296 Sherbourne street, Toronto, Canada; Dr. Frederic Schavoir (2 years), 8 Atlantic street, Stamford, Conn.; Dr. F. B. Bishop (3 years), Washington, D. C.; Dr. W. H. White (3 years), Boston, Mass. The next eleventh annual meeting will be held in Buffalo on September 24, 25 and 26, 1901.

New Officers of the Fox River Medical Association.—The seventy-first semi-annual meeting of the Fox River Medical Association was held at Aurora, Ill., recently. Officers were elected as follows: President, Dr. Catherine Slater, of Aurora; vice-president, Dr. F. G. Allen, of Aurora; secretary and treasurer, Dr. Henry Gahagan, of Elgin. The following committees were appointed: Executive, Dr. Burlingame and Dr. Sturm, of Elgin, and Dr. Mary Knight and Dr. Selkirk, of Aurora; Reorganization of State Medical Society, Dr. Hawley and Dr. Gahagan.

Genesee County Medical Association.—The annual meeting of the Genesee County Medical Association was held recently at Batavia, N. Y., and the following officers were elected: President, Dr. M. W. Townsend, of Bergen; vice-president, Dr. E. E. Snow, of Batavia; secretary and treasurer, Dr. Annie M. Cheney, of Batavia; executive committee, Dr. W. B. Whitcomb, Dr. B. F. Showerman, of Batavia, and Dr. E. C. Richardson, of East Pembroke. The next meeting will be held the first Wednesday in February, 1901.

Officers of the North Central Illinois Medical Association.—At the annual meeting of this association, which was held in La Salle, on December 4th and 5th, the following officers were elected for the ensuing year: President, Dr. F. O. Robinson, of Wyault; first vice-president, Dr. John Ross, of Pontiac; second vice-president, Dr. Jane Reed Keefer, of Sterling, and secretary and treasurer, Dr. George Discus, of Streator.

The Samuel D. Gross Prize.—A prize of $1,000 will be awarded on October 1, 1901, for the best essay illustrative of some subject in surgical pathology or surgical practice, founded upon original investigations, the candidates for the prize to be American citizens. The essays, which must be written by a single author, in the English language, should be sent to the "Trustees of the Samuel D. Gross Prize of the Philadelphia Academy of Surgery, care of the College of Physicians, 219 South Thirteenth Street, Philadelphia," on or before October 1, 1901. Each essay must be distinguished by a motto, and accompanied by a sealed envelope bearing the same motto, and containing the name and address of the writer. No envelope will be opened except that which accompanies the successful essay. The committee will return the unsuccessful essays if reclaimed by their respective writers, or their agents, within one year. The committee reserves the right to make no award if the essays submitted are not considered worthy of the prize.

Inquiry into the Causes and Treatment of Cancer.—At the next meeting of the American Psychological, Medical and Surgical Society, which is to take place at Chicago, on the first Tuesday of May, 1901, the subject of

Cancer and its Modern Treatment will be taken up. The following questions will be submitted for discussion: What are the Most Successful Methods of Treatment? What are the Values of Antitoxines? What is the Cause or the Causes of Cancer? Why is Cancer on the Increase? Classification of the Varieties of Cancer, and the Most Important Advances Made in the Study of their Pathology.

Toronto Medical Schools to be Consolidated.—Representatives of the faculties of Trinity Medical College and of Toronto Medical College have recently conferred together concerning the advisability of bringing about an amalgamation of the two institutions, and a committee is now at work drafting the details of a plan for the consolidation.

The New York State Hospital for the Care of Crippled and Deformed Children, incorporated by the last legislature, is now open for the reception and treatment of patients. The hospital is located at Tarrytown, New York, at Paulding Avenue and the Hudson River, about a mile south of the railroad station. It has accommodations for about thirty patients. The board of managers appointed by Governor Roosevelt are the Right Rev. Henry C. Potter, bishop of New York, president; Mr. George Blagden, Jr., secretary and treasurer; Mr. J. Hampden Robb, Mr. J. Adriance Bush, and Dr. Newton M. Shaffer. The hospital was established "for the care and treatment of any indigent children who may have resided in the State of New York for a period not less than one year who are crippled or deformed, or are suffering from a disease from which they are likely to become deformed." The following conditions are imposed upon all applicants: "No patient shall be received except upon satisfactory proof made to the surgeon-in-chief by the next of kin, guardian, or a State, town, or county officer, under the rules to be established by the board of managers, showing that the patient is unable to pay for private treatment. Such proof shall be by affidavit. If there was an attending physician before the patient entered the hospital, it shall be accompanied by the certificate of such physician, giving the previous history and condition of the patient." Patients from three to fifteen years of age will be received for treatment, and all applications will be acted upon in the order of their reception. No patient will be admitted without an examination by, and a certificate from, the surgeon-in-chief or his assistants. No patient whose condition is such that death is likely to occur in the immediate future, or whose condition precludes a reasonable amount of relief as the result of treatment, will be admitted. Application for admission should be made to Dr. Newton M. Shaffer, surgeon-in-chief, No. 28 East Thirty-eighth Street, New York, who will appoint a time and place for the examination of the patient. Patients living at remote points in the State are referred to the following gentlemen, out-of-town members of the consulting staff: Dr. A. Vander Veer and Dr. S. B. Ward, of Albany; Dr. Louis A. Weigel, of Rochester; Dr. Roswell Park and Dr. Charles G. Stockton, of Buffalo, and Dr. Richard B. Coutant, of Tarrytown.

Heat Melancholy and Suicide.—Andrew Davidson, in *Janus* for October 15th and November 15th, says: "Every one knows that suicides are most frequent in summer. Petit, as quoted by Lombard, established this for Paris on the basis of an examination of 38,205 cases collected during the decennium 1851-'60. His figures give the following results:

Jan.	Feb.	March.	April.	May.	June.
862	881	1,017	1,136	1,193	1,311
July.	Aug.	Sept.	Oct.	Nov.	Dec.
1,231	1,029	926	917	773	724

The monthly distribution of suicides in Italy for the thirteen years 1872-'84 is very similar, viz.:

Jan.	Feb.	March.	April.	May.	June.
1,025	1,109	1,294	1,527	1,651	1,718
July.	Aug.	Sept.	Oct.	Nov.	Dec.
1,625	1,309	1,021	1,049	942	891

The author says:

"It will be seen from these figures that the maximum of suicides falls on the warm months, but does not coincide with the maximum temperature; for the warmest month is not June, which is the one most charged with suicides, but July and August, in the latter of which months the number of suicides has already fallen very considerably.

"Lombard concludes that the length of the days, that is, the number of hours of light, is the predominating factor in determining the number of suicides. The nervous tension caused by the light, and the diminished period allotted to repose during the summer season as compared with winter, when the nights are long, disturb the mental balance. The elevation of the temperature, in his opinion, exercises the same kind of influence on the economy as light does, but in a less degree. I am inclined to think that temperature is the predominating factor, but that it is not so much the actual degree of temperature but its sudden rise that determines suicidal melancholy. After a time the body accommodates itself to the heat, even if excessive, and the number of suicides diminishes. This view is borne out by the fact that in a particular locality, in a given year, a sudden rise of the temperature is often seen to be followed by an increase in the number of suicides, but after the heat has persisted for some weeks the number falls again to its normal." The author then cites the statistics of suicides in New York in 1896. In India the season does not seem to affect the number of suicides, as shown by statistics from the European and native armies. This the author considers probably due to the fact that those living in the tropics get accommodated to a high temperature, and that the increased heat of summer does not affect their mental functions as in Europe." [In that case, however, it would be interesting to know what is the relation of frequency, as regards suicides, between newcomers to India and those inured by a residence in the country.] "The author concludes: "I think that we are entitled to reckon among other forms of heat diseases, a heat melancholy, which often leads to suicide. This form appears to be peculiar to temperate climates and is most common when a high temperature suddenly sets in. Those suffering from mental distress connected with love affairs, seem specially liable to be affected, but we need not doubt that other disturbing influences render the system less able to resist the heat, and it is doubtful if sunstroke in tropical countries is more destructive to life than the heat melancholy of temperate climates. It is probable that these waves of heat give rise to mental alienation without leading to suicide. Caelius Aurelianus enumerates among the causes of melancholy exposure to the sun. Rhazes says: *Melancholia capitis accedit post phrenesim aut longam moram sub sole, aut percussionem in capite.* Trincavellius notices heat as a cause of melancholy and mentions a case arising *a galea nimis calefacta,* but I find no notice of heat as a cause of suicide in any ancient author."

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THE TREATMENT OF TUBERCULOSIS IN SANATORIA.[*]

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Mr. Chairman and Gentlemen of the London Medical Society: It was with unusual pleasure that I received your kind invitation to read a paper before the society on a subject which is assuming so important a position in our ideas relative to the treatment of that most prevalent and fatal disease, tuberculosis. It is quite true that tuberculosis presents very different clinical appearances at the several periods of life; yet, as will appear in the mortality returns which are presented in the following table of deaths in Middlesex during the past five years, we may for practical purposes say that treatment in sanatoria of tuberculosis will be of that pulmonary form commonly known as consumption. Thus, only 58 deaths, including those under one year, are recorded for the first ten years of age, out of the 673 deaths which were registered; or, we may say that over a hundred deaths occur annually in Middlesex from pulmonary tuberculosis.

Deaths from Consumption, County of Middlesex, by Ages and Sex, for Five Years, 1895 to 1899 (inclusive.)

Year.	Under 10.	10 to 19.	20 to 29.	30 to 39.	40 to 49.	50 to 59.	60 to 69.	70 and over.	Age not given.	Total.
1895 Males	1	6	25	13	9	9	5	3	..	71
Females	2	12	20	11	8	10	3	..	..	66
Totals	3	18	45	24	17	19	8	3	..	137
1896 Males	4	5	13	9	4	4	6	..	1	46
Females	4	11	25	17	11	8	2	1	..	79
Totals	8	16	38	26	15	12	8	1	1	125
1897 Males	5	7	9	10	10	5	6	1	..	53
Females	7	10	23	14	12	5	3	1	..	75
Totals	12	17	32	24	22	10	9	2	..	128
1898 Males	6	5	12	10	9	10	5	2	..	59
Females	13	12	24	7	8	5	5	2	..	76
Totals	19	17	36	17	17	15	10	4	..	135
1899 Males	11	6	15	18	8	7	8	5	..	78
Females	5	7	20	16	6	8	2	6	..	70
Totals	16	13	35	34	14	15	10	11	..	148
Grand total males..	27	29	74	60	40	35	30	11	1	307
females	31	52	112	65	45	36	15	10	..	366
Grand total.........	58	81	186	125	85	71	45	21	1	673

But, while this is true as regards actual deaths, it is not equally true as regards the proportion of different forms of the disease actually prevalent during the various periods of life. As expressed in a previous paper:

"The interest which the study of this disease has for us as medical men becomes increasingly great when we recognize how numerous are its varied manifestations, how insidious its beginnings, and yet, though so often slow in its evolution, so fatally persistent in its progress. From birth to old age this disease is present, often obscuring as mists of the morning our vision in the diagnosis of the diseases of infancy, again seeming for the few short years of childhood to be dissipated as the clouds at noonday, only to return once more with adolescence as a dark storm cloud, too often bringing rapid ruin and destruction with it; or, if such be delayed, then only to leave constitutions as shattered ships, gradually but surely breaking up until they finally disappear in the deeper gloom. So generally spread, indeed, are the germs of this disease that the physician must ever be prepared to see them taking advantage of the invasion of every acute disease, as when in typhoid, pneumonia or pleurisy they make the attack at some vulnerable point when the vital resistance of the patient is at its lowest point."

Realizing the truth contained in this paragraph, it is apparent that there must always be a large number of cases of incipient tuberculosis which will not be recognized as such until some more acute manifestation of the disease places the patient in the hands of some physician. That even then many cases are not diagnosticated is quite within the experience of all. It must therefore appear evident that the problem of the treatment of tuberculosis, from the standpoint of a cure, whether in a sanatorium or elsewhere, depends primarily, other things being equal, upon the stage at which the patient comes under medical observation. I have collected data from various sources of information which will be useful in our consideration of this very essential point.

Stage of the Disease at Time of Diagnosis and Treatment.—In the laboratory of the Provincial Board of Health, specimens of sputum are examined from all parts of the province, with information supplied on postcards. Of 138 specimens in 1899, Dr. J. J. Maekenzie gave the following results:

Symptoms.		Positive.	Negative.
One month and under,	18	16.6 per cent.	83.4 per cent.
One to two months,	26	34.6 “ “	43.4 “ “
Two to three months,	14	50. “ “	50. “ “
Three to six months,	27	55.5 “ “	43.5 “ “
Six to twelve months,	28	46.4 “ “	53.6 “ “
One to two years,	8	62.5 “ “	47.5 “ “
Over two years,	15	26.6 “ .“	73.4 “ “

The results of the second laboratory period, ending October 31, 1900, are included in the following: Of the 591 specimens sent to the Provincial Health Laboratory in ten months ending October 31, 1900, 218 gave positive results, and 373 gave negative. Of 389 with data supplied, 149 gave positive results, and 240 negative results. Of 149 positive results, 69 were in males, and 80 were in females.

Numbers of patients giving positive results, by ages.

	16-20,	21-30,	31-40,	41-50,	51-60	61-70,	Total
Male	11	24	15	13	6	0	69
Female	12	32	20	9	6	1	80
Total	23	56	35	22	12	1	149

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[*] Read before the London (Ontario) Medical Society.

Table showing number of positive cases arranged according to duration of symptoms when specimens were submitted.

	1 month & under.	1–2 mos.	2–3 mos.	3-6 mos.	6–12 mos.	1–2 yrs.	2 yrs. and more.	No data.	Total
Male ...	5	4	10	11	16	8	8	7	69
Female ..	2	3	11	19	25	7	10	3	80
Total ...	7	7	21	30	41	15	18	10	149

Roughly, the disease had existed in these up to two years, on an average for fifteen months. It may be said that until very recently, the larger proportion of cases of consumption were not diagnosticated until the physical signs were well advanced. Dr. S. G. Bonney, professor of medicine in the University of Denver, has recently written regarding 546 selected cases in private practice, and states, "that 388, or 71 per cent., arrive in Colorado with distinct evidence of tubercular infection in each lung;" also that, "the total average period of delay from the time of definite onset of the disease was a little over 18 months." Dr. S. Edwin Solly, of Colorado Springs, says, that of 100 successive cases:

In 48 cases treated as soon as diagnosticated, 24 were in the first stage; 14 were in the second stage; 14 were in the third stage.

In 52 cases not treated for several months, or even years after the onset, 14 were in the first stage; 17 were in the second stage; 21 were in the third stage.

Statistics still more valuable for practical purposes and more comparable to the results of the laboratory returns already referred to, are those of the Hanseatic Insurance Co., carried on under the Workmen's Compulsory Insurance laws, in Germany, where, of 1,541 cases treated between 1893 and 1897, 30.9 per cent. were slightly affected, while according to those of the Bremen Insurance Co., in 1896, 279 patients were treated at the Richburg Sanatorium, of whom 23.9 per cent. were slightly affected, 32.7 were moderately affected, and 43.6 per cent. were seriously affected. The Gravenhurst (Ont.) authorities have stated that not more than one in eight persons examined for admission are in the first stage of the disease. But, further, Dr. Trudeau, of the Saranac Lake Sanatorium, in his last article, published this year, states that about 33 per cent. of the 1,200 cases treated within the last three years were in the incipient stage. Thus, taking the more exact German statistics and those of Dr. Solly and Dr. Trudeau, of the patients who were treated as soon as the disease was diagnosticated, we may say that, with our present knowledge and the actual practice of the public in the matter of seeking medical advice, not more than 25 per cent. of patients are brought under treatment for pulmonary consumption until the disease is well advanced.

It is quite clear, therefore, that in considering the sanatorium treatment of consumption, we must keep two distinct objects in view, viz.—(*a*) the cure of the disease, and (*b*) the prolongation of the life of the patient and the removal of infectious cases from surroundings where they are a menace to the health of others.

If we assume that each of the hundred deaths occurring in Middlesex in any year represents the 75 per cent. of patients who were in the more advanced stages of the disease, and that, as we learn from the statistics of sanatoria, a large proportion of patients at this stage do not die during the year while at the sanatorium, as at Saranac Lake, it is probably within the mark to say that at least 200 patients are present in the county in an advanced stage of the disease during any year; and, hence, at the present time any sanatorium treatment will be directed chiefly to patients in advanced stages of the disease. This will be yet more apparent when we remember the distribution of cases in different classes of the community. Thus, in the returns for the city of Toronto during five years, I have found that at least 80 per cent. of the deaths occurred in the artisan and laboring class, and that of 1,555 deaths of persons over fifteen years of age, 1,211 died during the years when, if married, they would be rearing families, while 75 per cent. of the deaths of females were within the child-bearing period.

I have dwelt on these figures at some length, since they have a most important bearing upon the subject under consideration. It is, I think, quite evident that sanatoria must be considered as falling under two classes, viz., private sanatoria for the well-to-do and sanatoria established under the provision of some statute similar to that passed by the legislature for establishing municipal sanatoria in Ontario. While the principles of treatment of the phthisical in each case must be the same, there will, nevertheless, be differences in detail worthy of consideration. I shall, therefore, devote my remarks especially to the municipal sanatoria which we are seeking to establish, with the view both of curing the sick and prolonging their capacity for work and of protecting their families against infection.

The Management of Patients in Sanatoria.—Anybody who has any knowledge of patients in public institutions knows that the success of the institution depends primarily on the person in charge of the everyday work, *i. e.,* on the superintendent, and, second, upon the rules which he is called upon to carry out. In the management of a sanatorium I shall take it for granted as being beyond question that the superintendent should be a physician. It might be said, Well, if a sanatorium is nothing more than a large boarding-house, where the patients are to live in a clean, well-kept home, and be given good food and such exercise as they feel inclined to take, of what use is a physician? This idea has prevailed, and in some countries still prevails, with regard to insane asylums and other similar institutions; but in all progressive institutions we now find the insane are being looked upon as patients, to be studied and treated with a view to cure in the same manner as any other patients. Such is the idea which has led to the success of the modern sanatorium treatment in the case of the consumptive. Previously he had been looked upon as incurable, and the most to be done was to make his life as comfortable as possible. Now, while we cannot hope to cure all the insane, and certainly do not expect to see all consumptives recover, yet the very success of our efforts in this, as in all other work, will depend upon the conviction which the superintendent has of the curability of the disease.

In the establishment of a municipal sanatorium, two things must be kept in view—that patients in the primary stage of the disease must be expected and provided for, and that patients who are in the advanced stage of the disease must be admitted in yet larger number, for a time certainly in the proportion of one to two. It may be mentioned in passing that the best-known sanatoria on this continent insist that only patients in the primary stage be admitted, or only such others as have a history which presents the hope of cure, or at least of great amelioration. Hence, at neither is there provided practically any separate hospital provision, since patients are strongly advised, if doing badly or incurable, to go home. In a municipal sanatorium, on the other hand, our object is, not only to cure patients, but to protect households; hence, for this class of patients a very definite amount of hospital provision must be supplied from the first. The erection of a cottage hospital, therefore, becomes necessary, not only for this reason, but also in the interest of patients who are not advanced in the disease, in which the neurotic element forms so important a factor. Hopefulness and despondency must constantly be dealt with as symptoms, and it will try all the resources of the expert physician to maintain hope dominant rather than despair. Thus the evil effects of lack of supervision are well illustrated at the boarding-houses and winter resort hotels in the South.

1. Hence, the first rule which must be strictly enforced in a sanatorium is that patients be not allowed to discuss their own or other cases with persons other than the superintendent or other proper officials. This is the starting point of that benevolent medical tyranny which patients must submit to in a sanatorium.

2. The second rule is but a corollary of the first, viz., that systematic means must be taken to in every way provide mental employment of a wholesome character, and hence we come to a third rule.

3. The careful division of each patient's time by a time-card which he or she keeps regularly as a diary, and which the physician weekly, or oftener, examines at the time of his medical examination, and continues or modifies the daily routine laid down previously in accordance with the experience obtained from results. I have had some knowledge of private sanatoria in different parts of this continent, and am convinced that in no one feature is there such room for improvement in the routine methods as in the close oversight of the daily life of each patient.

4. Assuming that the patient has arrived at the sanatorium, it is apparent that a complete family and personal history should be taken, as well as a detailed history of the case as regards its duration, signs, symptoms, extent of infection, progress of the disease, and a detailed examination of all organs and secretions. As the patient is new to his surroundings, it is natural that a close daily observation of him for a short time should be necessary in order that the best line of treatment in his particular case may be accurately mapped out, being modified only as subsequent observations may dictate.

5. As many are aware, the sanatorium treatment of consumption dates back at least sixty years, but the work of Dr. Hermann Brehmer, at Gorbersdorf, which began in 1859, is the first whose history has been continuous to the present time. Following him as pupil and coadjutor, Dr. Dettweiler, of the Falkenstein Sanatorium, has added much to the knowledge already obtained at Gorbersdorf, of the treatment which we now call "The open-air treatment of consumptives." It will of course be understood that these sanatoria are constructed with all the advantages theoretically supposed to aid in the fresh-air treatment, such as perfect house ventilation, rooms exposed to direct sunlight, verandas and solaria in proper and convenient positions, shelters in the grounds which may be turned away from the winds; walks through the grounds with graduated inclines, amusement rooms, and so on.

6. Actual treatment, as a rule, begins with the patient's being placed in bed on his arrival and kept there, should the afternoon temperature rise to 100° F., or over, while the beds are daily wheeled to some large open window or protected balcony. Symptomatic treatment of the pyrexia is practised by some, but, as a rule, it is not advisable or necessary, as reliance must be placed on the improvement of the nutrition and on the quieting influence of fresh air on the thermic nerve centres.

7. When the fever has for several days been practically reduced, the rest cure proper begins in the patient's being allowed to recline on an adjustable reclining chair on a balcony protected by glass shelters in the direction of the wind. This treatment at many sanatoria is continued from 9 A.M. to 9 P.M., the patient then going to his bedroom, where, even in winter, the window is left open, a screen only keeping off the wind.

8. While it is apparent that the condition of the patient must determine how long this treatment is to continue, both theory and more recent practice point to the time when, with improved nutrition and increased strength, gentle exercise may with advantage be added to the treatment. This is first attempted, unless in cases with recent hæmorrhages, by breathing exercises, which are nothing more than the simplest movements which are taught our school children, increasing to the more complicated ones of our manual of military drill. As progress is made, walks for graduated distances and at different inclines are permitted, and finally games and recreation, such as bowls, tennis, boating, and cycling are in-

dulged in, in moderation, while at the municipal sanatoria it is found that a notable improvement in patients has taken place where gardening, household work, basket-making, and similar light industries have been introduced. Both from the evidence in many cases where ranching or outdoor life in the mountains has been taken up by consumptives, and from our everyday experience of the effects of exercise on nutrition and reconstruction of tissues, there can be no doubt but that under wise supervision, both from the physical and mental standpoint, such employments play an important part in promoting cures. Indeed, Dr. Hans Weicker, of the Krankenheim at Gorbersdorf, where a large number of work-people have been treated during the past five years, states that patients of this class improve decidedly more rapidly than the better classes, especially since some employment has been provided.

9. As adjuncts to treatment, some sanatoria have baths in which a more or less elaborate system of hydrotherapy is carried out according to the views of the medical superintendent. There is perhaps no sanatorium in which the benevolent tyranny is more exercised than at Dr. Otto Walther's sanatorium at Nordrach, in the Black Forest. Walther trains his patients to stand even draughts, and makes the cold douche a means of giving resistance and tone to the peripheral circulation. Personally, I am convinced that the hot and cold bath play an important part if intelligently administered, through improving the general tone and skin circulation; since it is common observation that the elimination of waste products in the Turkish bath may safely go on without danger of a subsequent cold.

10. The question of the food of consumptives has been greatly discussed, and, as all are aware, much has been said which seems contrary to our observations and experience in the general question of assimilation and nutrition. At present I believe it may be said that most physicians in sanatoria are agreed that a generous and nutritious diet, food well-cooked, palatable, and easily digested, is productive of the best results. We are all aware of the great change which has taken place in the feeding of typhoid patients. It used to be a standing order to give two quarts or more of milk daily, regardless of whether a diseased intestinal tract could assimilate a pint or not, ending naturally in discomfort and the constant production of toxines. The same must necessarily be the case in the ill-regulated feeding of the phthisical. In nothing, however, will the personal and professional qualities of the physician be more tried than in this matter. The patients have already in most cases been suffering from dyspeptic troubles, especially of that persistent form, the intestinal, so closely associated with the neurotic type. Anorexia must be overcome by gentle persuasion, assisted more largely by the fresh air than all other agencies, and perhaps by passive exercise and massage; while the use of lavage and the best intestinal disinfectants will prove of notable advantage.

11. The use of fats and oils, among which I would place first cod-liver oil, has been the subject of much discussion as regards their utility in the treatment of this wasting disease. We are all aware of the various theories regarding the emulsifying of fats through the action of the secretions, especially that of the pancreas, and may fairly assume that the amount of this, as of other secretions, is affected during an anæmia such as that commonly present in phthisis. Recent experiments seem, however, to make it clear that fats are absorbed in a soluble form as fatty acids, and that the biliary and pancreatic secretions simply increase the solubility of the fatty acids. However that may be, there is in my experience a very notable distinction to be made in the readiness with which the two forms of carbonaceous foods, the starches and fats, are assimilated by many persons, especially persons with a weak intestinal digestion. In the case of starches it is common knowledge that the patient of the neurotic type must use certain starches, such as that of the potato, very sparingly, if intestinal fermentation is not to result, and the constant use of white bread can, I believe, in such patients often be restricted with much advantage. On the other hand, it is common observation that persons of sedentary habits are increasingly refusing to eat fatty foods, such as fat meats, butter being the only form of fat seemingly palatable. Now, it has been a matter of personal observation that oils, used as olive oil in southern climates in large amounts, and the best purified cod-liver oils, can be used with the best effects in many patients to whom, owing to their not being a common article of diet with us, they may seem at first nauseating. Their utility, in my opinion, depends upon three distinct causes: 1. They serve, owing to their oily nature and to their being broken up in the intestine into fatty acids and glycerin, as laxatives and lubricants of the intestinal walls. 2. They are but slightly acted upon by bacteria, although in the absence of bile and pancreatic juice they may be decomposed into fatty acids and be largely discharged unabsorbed. 3. When absorbed by the columnar epithelium of the villi, they are carried directly to the central lacteals, and thence directly to the thoracic duct, instead of going, as in the case of starches and proteids, into the portal circulation for elaboration in the liver. What is of equal interest and importance is that fats do not increase the glycogen of the liver, and hence relieve that organ of the elaboration necessary to convert this carbohydrate into material assimilable by the tissues. Moreover, the simple constitution of the fats, that is, fatty acids and glycerin, with the small amount of oxygen in their constitution, compared with starches, would seem to make them more readily converted into heat and energy by the oxygen conveyed by the hæmoglobin of the red blood-corpuscles.

I have thus at some length attempted to give my reasons for urging the increased use of the more palatable fats, since I am convinced that the habits of our more civilized life tend greatly to a decrease in their use, to the detriment of the general health and the tendency to wasting diseases, even in those not suffering for the moment from anæmia or phthisis.

12. The question of the use of alcohol has been much discussed within recent years, followed by a growing tendency to its complete disuse as a means of reconstruction of tissue. Speaking exactly, I believe it may be said that its use, except in patients with strong digestions, is contra-indicated, except as a temporary stimulant, owing to its disturbing effects upon the glycogenic functions of the liver in the large proportion of patients of the neurotic type. If, however, ales and porters are well borne, I am of the opinion that they will prove of value as productive of heat and energy in the reconstruction of tissue.

13. With regard to the proteids, it is hardly necessary to say that meat, milk, eggs, and similar articles of diet will be used up to the limit of their assimilation by the system.

14. Having dealt with the ordinary methods of treatment, it seems proper to refer to some of the details of special varieties of treatment developed within recent years. Among these I would refer first to that which, in patients deprived for a time of the privilege of active exercise, most nearly takes its place, viz., *massage*. Its value as an aid to the metabolic changes taking place in tissues cannot be overestimated. Sir Michael Foster remarks: "In this way an enormous metabolism may be excited, and yet so carried on that the body gains both in flesh and fat," and illustrates this by a case in which a patient in fifty days increased in weight from 45 kilos to 60 kilos, the average daily ration of 100 grammes of proteids having been increased to 150 grammes over the whole period. Where active exercise becomes possible, this of course may be largely dispensed with.

15. The effects of reduced air pressures in the climates of high altitudes have been frequently commented upon, and, in view of the physiological explanations given of such influence upon hæmatopoiesis, or the increase of red blood-corpuscles, and the deepening of the inspirations, we seem to have the best reasons for endeavoring to imitate such conditions by means of a room constructed and supplied with a gas engine, so arranged that the air pressure can be reduced. Another apparatus which, while lessening the air pressure on the chest-walls, enables the patient to breathe air of normal density, is the "peumatic cabinet." It varies in its details and completeness, but I am convinced that this direct means of deepening the inspirations and setting unused corners of the lung tissue to work, will have a definite therapeutic value if scientifically practised.

16. As regards the dress of patients, it need only be said that loose-fitting clothing, with flannel underwear of sufficient warmth, is all that is required, while, of course, care in protecting the feet by felt shoes and overshoes in damp or cold weather would be exercised.

17. As regards the symptomatic treatment of patients, it is impossible here to enter into details. The most that need be said is that the various measures which every physician practises for dealing with the several phenomena presenting themselves in this as other diseases, would be drawn upon. Nasal and throat abnormities or diseases will demand appropriate remedies; hæmorrhages, night-sweats, and the errors of digestion must receive proper attention; and, indeed, our full armamentarium will be called into requisition in dealing with the emergencies arising in the many patients of a sanatorium.

18. Personal hygiene in the case of sputum, the careful disinfection of the buccal and nasal cavities, and the careful instruction of patients in all matters of personal control, will necessarily become an important part of the duties of a medical superintendent. He not only has to consider the life of his patient while under his supervision, but he must further inculcate such rules of life as will be most likely to be beneficial to patients when they return to their homes and enter once more into some occupation. Much might be said on this point did time permit. Personally, I am of the opinion that in very few instances can patients return to the sedentary pursuits of urban life with safety. The very conditions of success in the *air-cure,* seem to point to outdoor occupations as being alone those in which the maintenance of good health can fairly be expected. It may be quite true that in some instances such conditions will be difficult or impossible of fulfilment, but we are dealing with a condition rather than a theory.

In concluding these necessarily imperfect remarks, I cannot overlook the, perhaps, most important part sanatoria will play in lessening the fatality from tuberculosis. They are essentially prophylactic, first, by receiving patients from small, often insanitary homes, where they are not only possible, but almost sure centres of infection. Thus, of the 663 tenements in 1896 in a single ward in New York, 37 per cent. had one or more cases of consumption, there being .81 per cent. of cases to every house; while in a statistical study made of the deaths in Huron county for ten years, 1889-1898, I found that 33 per cent. of the total 633 deaths were of persons having a name recurring two or more times. Thus, sixty names occurred twice, twenty-five names thrice, ten names four times, two names five times, and six six times, and one was found eight and one nine times. It is further found, in answer to inquiries made on postcards accompanying specimens of sputum for examination in the laboratory, that a notable proportion report other cases at present existing or having existed in the house.

But the sanatoria will prove a perhaps even more important factor in becoming educational centres from which persons will return to their homes and there preach the gospel of cleanliness. And, indeed, all evidence is going to show that our ideas of cleanliness will not avail to prevent danger of infection to the well where the expectorating consumptives live and are employed. Most stringent directions are given against coughing, except into some paper or cheese-cloth handkerchief which can be destroyed, since moist articles of sputum fly in the air, remain suspended for several hours, and when they disappear, deposit their bacilli on walls and floors to rise again as dust. Dr. E. R. Baldwin has published most interesting experiments showing that the washings taken without warning from the hands of ten private and eighteen sanatorium patients at Saranac Lake were inoculated into guinea-pigs. Half the private patients used cuspidors and occasionally their handkerchiefs; the rest used cuspidors or cloths. The sanatorium patients all denied using handkerchiefs. Their hands had been previously washed within from ten minutes to twelve hours. Of the ten private patients, eight were the means of inoculating either one or both of the test guinea-pigs. Of five sanatorium patients whose washings were injected, two infected one guinea-pig only, the disease resulting being of a very chronic and localized type. It was noted that it was the private patients, who insisted upon the use of handkerchiefs, who furnished the cases of severe infection. The lesson thus taught is obvious.

In conclusion, I wish to refer to a matter which I have alluded to before in speaking to physicians regarding persons in their practice whom they had found tuberculized. We have already seen how large a proportion are not diagnosticated until the disease has become well advanced. It is apparent that, if there is further delay in taking prompt action, the double injustice is done both to the patient and to those living with him.

I am quite well aware how inconsiderate such patients and their friends often are, and how a physician, after losing a few patients by his honesty, is slow to tell a patient the truth. But a wise discretion will, in most cases, result in retaining the confidence of the patient and family, while the consciousness of having performed a plain duty will be a source of personal satisfaction. I quote the words of Dr. Trudeau, of Saranac Lake, a man beloved by all who know him, and one than whom no one has devoted for twenty years more single aim and scientific energy to the study of the protean phases of this disease:

"As soon as the diagnosis of tuberculosis is established, particularly if the bacillus has been demonstrated in the expectoration, no matter how well the patient may appear, he should at once be told of the grave nature of his malady, and an immediate removal from his surroundings should be urged, while it is explained to him that the best and possibly the only chance of restoration lies in prompt action and the adoption of thorough measures. Although obedience to this advice undoubtedly necessitates great sacrifices on the part of the patient, he will, if it is at all possible, rarely hesitate to make them, provided the gravity of the situation is plainly laid before him and the necessity for prompt action explained; and, if this is not done, he will be called upon to make the same sacrifices later, and when they can prove of little or no avail.

"The position physicians take who purposely deceive patients as to the nature of their malady by telling them the bleeding comes from the throat, or that they have influenza, malarial disease, or bronchitis, is difficult to understand, and does the patient a grave injustice.

"It will be justly urged that in a great majority of cases among the poorer classes it is absolutely impossible for the patient to follow the advice given. This is greatly to be regretted; and, while it in no way relieves the physician of the responsibility of making early diagnosis, and advising prompt and radical measures to those who can afford to follow his advice, it is a strong plea for attempting to provide sanatoria for a greater number of these unfortunates, where they can find at a moderate cost the climatic and hygienic surroundings necessary for the treatment of their disease as soon as its presence is recognized."

It seems, therefore, evident that what the present situation needs for the treatment of and protection against this disease is, before all things, a recognition of its curability and prompt action in its early stage, the certain danger to the patient in delay, and a daily increasing danger to those with whom he is constantly associating.

To meet these several desiderata we may say that in practice, sanatoria, properly constructed, equipped, and officered, will alone be found adequate.

HYPERIDROSIS OF THE AXILLA; ITS TREATMENT WITH THE THERMOCAUTERY.*

By LOUIS KOLIPINSKI, M. D.,

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THE writer has had ample opportunity, in several cases of hyperidrosis of the axilla, to test the various local and constitutional treatments in vogue in the text-books on dermatology, without in a single instance noticing any but the most transitory improvement. Considering this skin disease and its characteristics—its unvarying persistency, its long duration, the daily personal annoyance, the loss of time and the expense that it entails—some method of treatment seems desirable that will offer speedy and apparent results. Frankly viewing it as unamenable to ordinary topical and systematic medication, the mind would logically incline to consider a surgical procedure. The sweat glands of the axilla are amongst the largest of the human tegmentary system and their convoluted portion is not imbedded in the true skin, but lies mostly in the subcutaneous cellular tissue.

Excision, then, of the whole of the tissues involved, would result in total relief. A milder, less radical means would be the application of the hot iron with short untouched spaces between, destroying thereby the excretory ducts of these glands. A practical test alone can determine whether the cautery, used to turn small patches of integument into scar tissue, and penetrating to one-half of the thickness of the corium, will, at the same time, permanently destroy the activity of the secretory part beneath the surface acted on.

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*Read at the meeting of the Therapeutic Society of Washington, D. C., for December, 1900.

With this plan in view, the second proposition was tried as being less mutilating and easier and speedier in the application. The result has induced the writer to describe the method used and to append a short history of a case so treated.

A local or general anæsthetic is unnecessary unless the patient is irrationally timid. The axillary base is washed and shaved. The thermocautery at a bright red heat is applied, with its flat side, from ten to twenty times to the space from which the sweat is seen to ooze, namely, the area covered by hair in the adult; the triangular groove below, when the arm is elevated, for about two inches; the posterior border of the armpit, especially at its middle, and the upper external border near the hairy centre. One-half or more of the superficies is turned into burns of the second and third degrees. The cauterizing is done in a very few minutes and the pain as indicated is not severe.

A dry bismuth or zinc-oxide dressing is applied, and the patient may resume his ordinary occupation in a few days.

Case.—A man of thirty-three, formerly a carpenter, but for the last four years employed at the Capitol in packing and shipping books and documents—work which requires considerable muscular exertion. The patient's general health is good. His father and an adult sister have the same abnormity in the skin function as himself. The hyperidrosis in the subject's case has existed eight years. Its intensity is not affected by the seasons, and profuse sweating of the armpits accompanies every species of active exercise. It does not appear when he is at rest or asleep. The armpits, when examined, are wet, and slender streams of sweat trickle down the sides of his body. His undergarments and sleeves, where in apposition to these parts, are always damp or saturated. If, after dressing, he attempts the shortest stroll this condition of things at once appears. He is right-handed and the secretion is more abundant on this side.

The patient submitted to the use of the cautery in the right axilla, and, three weeks later, the same treatment was applied to the opposite one. Examination was made two months after the first cauterization. He wore heavy winter clothing. The temperature out of doors was 60° F. He had just accomplished a brisk walk of twelve blocks. His underwear was dry. In the right armpit was a certain amount of sweat secretion, of normal quantity for the circumstances under which the inspection was being made. There was a fair reappearance of axillary hair; the burnt spots showed as fine, pale red cicatrices. In the left axilla the hair was more scant. The red spots were larger and brighter, and there was no sweating at all.

His general appearance, weight, complexion and carriage all showed decided improvement.

Accommodation for Tuberculosis Patients.—The National Sanitarium Association of Toronto, Ont., has offered to provide accommodations for consumptives of Ontario who are unable to pay for their own maintenance. The association intends to deal with every phase of tuberculosis. The money to be used for this purpose has all come from private sources.

THE EUSTACHIAN BOUGIE.

By LORENZO B. LOCKARD, M. D.,

PASADENA, CAL.

The diagnostic value and therapeutic effects of the Eustachian bougie have been alternately so lauded and condemned that few know what dependence to place upon it, and the dangers said to attend the application have kept it from gaining the recognition due to its undoubted merits.

When is the bougie to be used, what results may be anticipated and what dangers, if any, are encountered? thus become questions of great importance.

That it has a distinct field in aural surgery seems to me established beyond the possibility of doubt, and it is equally evident that the mischievous effects have been a thousandfold magnified.

In two conditions only is the use of the bougie advisable: Tubal stenosis and tinnitus. (The electrical treatment of deafness and constrictions by means of copper bougies and insulated catheters is not included.)

When judiciously used in these conditions, the results are frequently gratifying even when all other procedures have failed. Although we shall frequently meet with absolute failure, success will be frequent enough to warrant a trial in all cases.

Before considering the uses and abuses of the instrument, a brief review of the anatomical and pathological conditions encountered is requisite.

The Eustachian tube, from pharyngeal to tympanic orifice, measures from thirty-five to forty millimetres, of which the membranous portion comprises from twenty to thirty.

In using the bougie, the membranous, or pharyngeal portion, is alone involved, and hence with the osseous section we need not concern ourselves. This membrano-cartilaginous tube is funnel-shaped, the smaller opening being represented by the pharyngeal, the larger by the osseous, ostium. A height of five millimetres, and a width of three, are the average dimensions of its lumen, these being increased toward the external, and decreased toward the internal, openings.

The diameters of the narrowest point, the isthmus, which is in the cartilaginous portion immediately before its union with the osseous, are from one millimetre by one millimetre and a half, to one millimetre and a half by one millimetre and three-quarters. From the pharyngeal ostium the isthmus is distant from twenty-four to twenty-six millimetres, a most important measurement, for beyond this point the bougie need never go.

"The mucous membrane of the membranous portions has an abundance of folds in its lower portion. According to Moos, these folds of the membranous portion form a bulging immediately behind the ostium pharyngeum, which closes the tube in this place when at rest. Above, the abundance of folds gradually decreases. The arteries of the tube are derived from the ascending pharyngeal and the middle meningeal. The veins communicate with those of the cavum tympani and the nasopharynx, and, anastomosing with the sinus cavernosus, form a plexus which, when over-filled with blood, changes the calibre of the tube to a considerable extent." (Politzer.)

This portion of the tube is peculiarly subject to conditions that lead to a partial or complete, temporary or permanent, occlusion of its lumen. The narrowing is usually consequent upon middle-ear catarrh, and is due to a simple swelling of the mucous membrane or to a growth of new connective tissue. This latter process takes place in the submucous layer of the mucous membrane. The simple swelling may arise from an inflammation of the tube itself, but is usually an extension of inflammation from the middle ear or nasopharynx.

Besides these organic and simple swellings, the tube may be occluded or compressed by the pressure of nasopharyngeal growths, by tumors at the base of the skull, and by collections of inspissated mucus in the tube.

The constriction may occur at any part of the tube, but most frequently is situated in the neighborhood of the isthmus, and, not infrequently in the simple forms, at the ostium pharyngeum tubæ.

Constrictions due to engorgement of the tubal veins, to simple swelling of the mucous lining, or to a folding in of the normal folds near the ostium pharyngeum, can nearly always be overcome by use of the air douche or catheter. While the use of the bougie is not particularly indicated in these cases, nor, as a rule, necessary, prompt relief will follow its application. Severe cases of thickening, however, will sometimes resist all other methods of treatment, and in these the passage of the bougie followed by the air douche is indicated.

One of several methods may be employed: The use of graduated bougies; of rubber capsules fastened to a catheter and inflated after introduction; or the passage of bougies soaked in silver solutions. If relief does not ensue, the diagnosis of organic stricture is definite, and the repeated use of the bougie is indicated. To accomplish dilatation, the bougie must remain in position for from three to ten minutes and be passed every two or three days. Occasionally the results are bad, and upon withdrawal of the instrument there will be an increase of the swelling with aggravation of the tinnitus and deafness. In such cases the treatment must be at once discontinued.

Frequently an improvement will occur with a later recurrence of the stricture, but some cases of lasting improvement have resulted, and we are always justified in recommending a conscientious trial. Politzer says: "Nevertheless, in cases of undoubted narrowing of the tube, I look upon the introduction of bougies as very important, because some improvement takes place in the hearing, the often unbearable noises are toned down, and the rapid progress of the disease is also prevented."

According to my experience, the fame of the bougie must not rest upon the often doubtful results obtained in the management of strictures, but upon the likewise doubtful results obtained in the treatment of obstinate tinnitus.

It is not of that great class of cases of tinnitus due to occlusions of the tube that I wish particularly to speak, but rather of those in which, with a patulous canal, the noises persist and defy all our best efforts. The action of the bougie in these cases is a reflex one—a reflex in the auditory centre produced by the irritation of the sensitive branches in the tube.

In which cases a favorable result is to be anticipated, cannot be foretold. In one, striking improvement will follow; in another, undue persistence will induce an aggravation of all the objectionable symptoms. Relief follows in such a fair proportion of the cases that the method should always be tried, and continued until something definite has been gained in one way or another.

Even when a permanent cure is not gained, the relief is frequently so great that patients come at regular intervals for treatment, stating that they are comparatively free from tinnitus in the intervals. This is not a rare, but a common experience.

With the decrease of tinnitus there frequently results a striking improvement in the hearing, usually temporary, but sometimes permanent. I subjoin a report of a favorable case:

E. L., aged forty-six, lawyer. For three years he has had gradually increasing deafness in the right ear with distressing subjective noises. For nine months he was under treatment by a well-known aurist; air douche, stimulating vapors, pneumatic massage, and operative treatment of hypertrophic rhinitis. Hearing increased to almost normal but tinnitus uninfluenced. Right membrana tympani hypertrophic and slightly retracted. Eustachian tube patulous. He continued the former treatment for two months without further improvement. I then passed a bulbous catgut bougie, smallest size, and the noises stopped instantly. Bougies of larger size were passed on alternate days for three weeks without return of the tinnitus except in the first week. Seven months have now passed without a recurrence.

Such striking results are rare.

The dangers said to attend the use of the bougie are: Acute otitis media; emphysema; perforation of the membrana tympani; dislocation of the ossicula; aggravation of the local trouble (decrease of hearing and increase of tinnitus); faintness and fainting.

Acute Otitis Media.—Any surgical procedure may, by the introduction of foreign matter, produce a simple or suppurative inflammation, and this may happen in the passing of a bougie as it may in catheterization of the ureter, but the probabilities of its occurrence are no greater in the former than in the latter procedure.

If reasonable care is exercised (preliminary cleansing of the nose, asepsis of all instruments, and the use of individual bougies), it should never occur, and has never occurred in the practice of the author, although he has used the instrument hundreds of times.

Emphysema, the great bugbear of the opponents of the bougie, is produced by the inflation of air when there exists some abrasion of the mucosa, usually caused by the catheter, bougie, or the impact of a strong current of air directly against the mucous membrane.

This, like acute otitis, must be an accident of extreme rarity and, when it occurs, one of comparative innocence. To avoid it a few simple rules must be followed:

In the first place, force in the introduction of instruments must never be used; patience and gentleness will accomplish what mere strength never can. This is particularly true when the instrument is used in the dilatation of strictures. A bougie of the proper size must be selected and its point carefully examined for cracks or breaks, thoroughly lubricated in an aseptic oil, and passed through a short catheter with a long and strongly curved beak. Several ink marks at the proximal end of the catheter (from one centimetre and a half to two centimetres) will determine how far it may be safely advanced. It must be pushed along slowly with occasional rotations upon its axis.

Upon withdrawal the end must be carefully examined for blood, and, if found, inflation is not to be practised.

If careful attention is paid to these details, a wounding of the membrane will never be seen.

Emphysema.—If this occurs, what are its dangers? The air will penetrate into the cellular tissue of the pharyngeal mucous membrane and will usually be confined to the pharynx, but it may extend to the entrance of the larynx or to the lateral regions of the neck and face. An extension to the cavum tympani and membrana tympani is an occurrence of the greatest rarity. As a rule the symptoms are almost *nil,* and will of themselves disappear within a few days. Simple procedures, massage and scarifications, will usually cause a rapid disappearance of the swelling, even in the more aggravated cases. Unfortunately, this is not always true, there being on record the report of three fatal cases.

Perforation of the Drum.—Nothing can excuse the careless ignorance and blundering awkwardness that would allow a bougie to be passed through the drum, or into the tympanum, so as to cause a dislocation of the ossicula. If the anatomy of the tube is borne in mind, only in so far as the distance from the pharyngeal ostium to the isthmus is concerned, and excessive force is avoided, such an occurrence is impossible. In 1896 Professor Urbantschitsch, of Vienna, told me that he had seen but one such accident, and that that occurred in the hands of a neophyte with more brawn than knowledge. In that case, the point of the bougie passed into the external meatus, but no harm resulted. Infection did not occur and the wound in the drum healed promptly. In Urbantschitsch's clinic, from ten to twenty patients are daily treated with the bougie, and nearly always by beginners in the work. The bougie there is handed the student as early as is the tongue depressor in the throat dispensary. Such results under such conditions cannot stamp the procedure as a dangerous one.

Aggravation of the Local Trouble.—Without question, the most serious objection that can be urged against this instrument is the fact that, in a certain number of cases, its use will be followed by an increase in the trouble. Nor can we predicate in what case such a result is likely to happen. If at the first sign of such an aggravation the treatment is discontinued, no permanent harm will be done.

Faintness and fainting, as reflex phenomena, are sometimes, although rarely, observed.

As an instance of the misleading statements made about the bougie, I will quote from an article entitled Eustachian Catheterization, that appeared in the *Journal of the American Medical Association* for May 19, 1900:

"The Politzer and Valsalvan methods, *like the use of Eustachian bougies,* have always seemed to me a kind of veterinary surgery; unscientific and worthy only of indolence and incompetency. They are replete with possibilities of unavoidable mischief."

Whether or not the passage of a bougie is unscientific, no operator competent to handle the instrument will apply to those skilled in its use such manifestly absurd terms as "incompetent and indolent."

Résumé.

The bougie, except when used as an electrode, is applicable in two conditions only: stenosis and tinnitus.

The therapeutic effects are uncertain; sometimes harmful, frequently beneficial.

It effects its purpose in two ways; by pressure upon contracted tissue and by reflex influences upon the auditory centre.

It should be given a thorough trial in all cases that have resisted other procedures.

Its use must be stopped upon the first sign of increase in the local trouble.

If care is taken, the dangers said to attend its application will be accidents of the greatest rarity.

It has a definite field in aural surgery.

Vandevort Block.

THE EAR AS A FACTOR IN CAUSING SYSTEMIC DISTURBANCE.

By JAMES L. MINOR, M. D.,

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In April, 1894, I called attention to The Ear as a Factor in Causing Cerebral Disturbance in Intestinal and other Diseases of Infancy, in an article which I read before the Tennessee State Medical Society (see *New York Medical Journal,* July 28, 1894). Before and since that time the subject has been treated of by occasional writers, but it has never received the attention it deserved, and is yet an uncultivated field. The specialist sees little of it because the general practitioner is called to treat what is supposed to be a general ailment, and he does so with pardonable error, for local symptoms are sometimes entirely wanting, and, when present, may be apparently of secondary importance.

Those who have studied the subject are frequently surprised at its widespread and important ramifications. When it is more thoroughly understood, fewer lives will be lost, and the treatment of many infantile, and of some adult, diseases, will be simplified. The frequency of middle-ear disease in infancy is astonishing. Rasch, of Copenhagen (1), examined the ears in sixty one post-mortems on infants under two years of age, dead from various diseases, and found otitis media in seventy-five per cent. Several of these children had exhibited brain symptoms, and the diagnosis of meningitis had been made, while post-mortem examination revealed no affection of either the brain or its membranes. Ponfick (2), in one hundred consecutive post-mortems on children under four years of age, made essentially the same finding. Barth (3) examined the ears of six hundred children, sick with other affections, and found otitis media in eighty per cent. Halsted (4) examined forty-four ears in children under three years of age, and found twenty-four with middle-ear disease, and in but four of these had it been previously known or suspected.

That the ear can be so frequently affected in infancy without attracting attention to that organ is easily accounted for. The patients are often too young to indicate what they are suffering from—that they are in pain may be quite evident, but where it is located can be told only after a personal examination. Again, the general symptoms may so far outweigh the local ones that the ear is overlooked in our search for their cause. Then, too, there may be suppurative inflammation of the middle ear, with little or no pain, and without physical signs, such as redness and bulging of the drum membrane, which are relied upon for the diagnosis of such trouble. This is more apt to occur in infancy, when the Eustachian tube is short, thereby allowing pus to escape by that channel, rather than to accumulate or escape through a perforation in the membrana tympani. The frequent presence of adenoid tissue or masses near the Eustachian orifice in the throat of infants is another reason why children so often suffer from ear disease. This tissue readily inflames from taking cold, and the ears become involved directly through an extension of the process up the Eustachian tubes or by closure of the latter from swelling around the orifices.

The Eustachian tube, middle ear, and mastoid antrum form a continuous tube, which has been aptly termed a diverticulum from the throat, which readily takes on any disease affecting the nasopharynx, furnishes an ideal home for bacteria, and, through its blood and lymph supply, becomes an excellent distributing point for germs and toxines (Halsted). The roof of the drum cavity—always thin and sometimes membranous—separates the middle ear from the brain, and this readily explains how meningeal irritation, meningitis, or cerebritis may depend upon ear disease. While it is beyond the scope of this paper to deal with the local symptoms and the treatment of diseases of the ear, it will not be out of place to refer to a few of the salient points of each, so far as they relate to systemic symptoms.

Otitis media purulenta is the variety of the disease usually producing general symptoms. It begins with pain (earache), which may be referred to the ear, face, or head of the affected side. The hearing is more or less impaired, and a sense of fulness in the ear, with tinnitus, is experienced. In a time varying from a few hours to a few days, rupture of the drum membrane is apt to occur, after which the symptoms ordinarily subside, and recovery often follows without treatment.

The presence of purulent inflammation of the middle ear is usually made with ease from the patient's own statements, if he is intelligent enough to describe them; but in infants it is different—they show that they are in pain from fretfulness, etc., and may suggest that it is in the ear through their efforts to get the hand to that organ, or by burrowing the affected side of the head in the pillow, etc.; but we must rely, with them, upon our own examination. If the ear is inspected with a head mirror and speculum before perforation occurs, the drum membrane will appear red and bulging outward from pus in the middle ear. If perforation has taken place, pus will be seen in the auditory canal, and if this is removed by a cotton swab or a syringe, the perforation can usually be seen and its location and character recognized.

The treatment of these cases in the early stage is by heat—through the water-bag or similar appliance over the ear, and gentle douching of the ear itself with some hot antiseptic solution. The last-mentioned measure can often be relied upon to effect a cure after perforation occurs. If the symptoms continue, without perforation, a paracentesis of the drum should be made—if after the discharge has appeared, the drainage should be looked into, and the opening, if necessary, enlarged. The nose and throat are usually out of order, and should be treated at the time by sprays, etc., and later by more radical measures, *e. g.*, the removal of adenoids.

It is in those cases in which pent-up pus is retained in the middle-ear cavity, owing to non-perforation of the drum or to imperfect drainage through a small or badly located perforation, that systemic symptoms develop.

The remote, or systemic, effects of disease of the ear, to which I desire to call attention, will be given under their several headings, and each will be illustrated by the history of a case from my notebook.

CASE I.—*Meningitis (Symptoms of) Due to Otitis Media Suppurativa, Relieved by Treatment of the Ear.*—Miss O., aged twenty-four years; July 24, 1899. The attack began on the 23d, with pain in the head, worse on the left side, and at times about the left ear; it grew rapidly worse and, during the night, she had several convulsive seizures, with great mental excitement and delirium, the condition being so bad that the last rites of the church had been given before I saw her, with Dr. B.

G. Henning, who asked me to see a case of "either meningitis or ear trouble or both." I found inflammation of the left middle ear, with a bulging drum, which was opened, a free escape of pus following. Politzer's inflation was practised and a hot bichloride douche was used, by which time there seemed to be an amelioration of the symptoms. Directions were left for hot douches every three hours, and that notification should be given of any change for the worse. When I called next morning she was practically well, and so remained.

Case II.—*Acute Intestinal Derangement with Cerebral Complications, Relieved by Treatment of the Ear.*—M. R., aged one year and a half; November 4, 1893. Attack ushered in one week before, with peevishness, restlessness, disturbed sleep, appearance of distress and, later, fever; frequent pulse, purging, vomiting, distended abdomen, etc. On the third day all the symptoms were worse, and there were convulsive seizures of an epileptoid character, rolling of the head and picking at the ears; sluggish pupils, sometimes dilated, sometimes contracted, and at times the pupils would be of different size. There was a vacant stare; she seemed to know no one; ate only when food was put in mouth; the pulse was weak and frequent and the general circulation poor. The temperature was erratic, going to 104° F. or more and quickly falling to normal or less. I was called in to see the patient by the late Dr. S. A. Rogers, and found acute otitis media with bulging drum on the right side, and subacute otitis with no pus on the left. I evacuated the pus from the right ear by a paracentesis, inflated the ears with Politzer's bag, and used the hot douche on both. Relief was marked. The child went to sleep naturally for the first time in some days, appetite returned, and she behaved naturally. Under this treatment alone a perfect recovery was made in about ten days. A few slight convulsive seizures were experienced before this end was reached, but they coincided with exacerbation of the ear trouble, and subsided when the ears were relieved.

Some observers believe the ear disease to be secondary to the gastro-intestinal disorder in such cases, while others (Hartman) believe that septic infection from the ear is responsible for the gastro-intestinal trouble.

Case III.—*Septic Fever and Earache, Following Measles, Cured by Treatment of Ear Trouble.*—M. C., aged eight years; March 26, 1899. Measles one week ago. Fever continued, running an erratic course—as high as 105° F., as low as 100° F.—with occasional light pains in the left ear. Was worse last night, and Dr. Henning asked me to see the case with him. I found pus in the middle ear, and evacuated it by a paracentesis. Politzer's inflation was practised. Hot bichloride douche was used, the fever subsided, and a cure was effected by continuation of the ear treatment.

Case IV.—*Continued High Fever Unaccounted for until Otitis Media Purulenta was Discovered and Treated, with Relief.*—M. D., aged fourteen months; April 20, 1900. Sick for four weeks; fretful; no appetite; continuous erratic fever, running from 105° to 100° F.; rebellious to all treatment. The day before I saw the patient, the attending physician noticed a discharge from the right ear, and suggested an examination by me. The temperature was 104° F. when the patient was brought to my office. The ear was cleansed, and a perforation of fair size was found in the drum membrane. Politzer's inflation was practised, and directions were given for syringing the ear with bichloride solution every three hours. The fever disappeared that afternoon, and continued absent until some days later; the syringing was stopped, because the parents thought it unnecessary, when the fever rose again, to yield, as before, to cleansing the ear. The accumulation of pus in the ear seemed to cause a rise of temperature whenever it occurred, for this experience was encountered several times before the ear was finally cured and health restored.

Case V.—*Recurrent Attacks of "Bilious Fever," Due to Retained Pus in, and Inflammation of, the Middle Ear.*—C. C., aged eight years; June 11, 1899. Two years before, patient was operated on for mastoiditis, since which time there have been occasional attacks of middle-ear inflammation and discharge, which have seemed to coincide with attacks of "bilious fever," when the temperature would at times go as high as 106° F., to which fact the family attributed the ear trouble. She came to me soon after one of these outbreaks. I found, after removing the pus from the right ear, that there was a large perforation in the upper part of the drum membrane, involving about one eighth of its structure, and that the lining membrane of the middle ear was inflamed. The inflammation readily yielded to treatment, and I heard nothing more of the child for four weeks, when she was brought to me with a running ear which followed a three days' attack of "bilious fever." I found the condition essentially the same as when first seen.

It occurred to me that the ear might be the source of the attacks of fever, and I asked to be called on the first sign of a subsequent one. A month later, she had the headache, vomiting, fever, etc., which foretold one of her attacks, and I was notified. I found what looked to be quite a sick child—complaining of the symptoms stated and having a temperature of 106° F. On examining the ear, I found the opening in the drum closed by a scablike formation (inspissated mucus and pus), removal of which allowed the escape of pent-up pus. The ear was douched and Politzer's inflation practised. The child at once said she felt better. In the course of six or eight hours the fever disappeared, and on the following day she was practically well. Since that time four or five "bilious attacks" have been warded off by the mother, who has learned to use the douche so soon as symptoms indicative of trouble appear, and no "bilious fever" has been since experienced.

References.

1. *University Medical Magazine,* March, 1894.
2. *Medical News,* March, 1900.
3. *Medical News,* March, 1900.
4. *Medical News,* March, 1900.

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THE IMPORTANCE OF POSTOPERATIVE TREATMENT AFTER REMOVING SPURS OF THE NASAL SÆPTUM.

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Two cases which I have seen in the past six weeks lead me to believe that a few words on this subject will not come amiss. One case was that of a young man, a boiler-maker who, three years ago, had been operated on because of an obstruction on the left side of the nose; he had been temporarily relieved, but for some time had suffered from a recurrence of the trouble. Examination revealed a large spur in the cartilaginous portion of the sæptum impinging on the inferior turbinate bone. The other case was that of a cigarmaker who had been operated on one year and a half ago in New York, and who now came because of inability to breathe through the left side of the nose. Examination revealed a deviation with a spur on its crest almost entirely occluding the left side of the nose.

Here were two patients with a great similarity in their history. Both had suffered from a similar trouble; both had undergone similar operations with similar results.

Inquiry elicited the information that one patient had returned once after the operation, and had then been dismissed; and that the other had returned three times. Volumes have been written as to the advisability and preferability of using a saw, a knife, a gouge, a drill, or what not, for removal of spurs of the sæptum, but we read and hear very little indeed of what happens after the spur is removed and why they almost invariably return. If an operator takes the pains, perhaps a week or ten days after the operation, to carefully remove all crusts and mucus from the site of the wound, and to make a careful examination, he will find small granulations springing from every portion of the abraded surface, and somewhat larger ones creeping in from the edges. If no measures are employed to check the growth of these granulations, they will increase in size until they occupy a space fully as great as, and often greater, than that of the spur which was removed; after a while the epithelium of the mucous membrane creeps in from the periphery and covers the granulations.

What has happened? The surgeon has removed a spur; Nature has replaced it by a mass of granulation tissue, which does, it is true, become cicatricial and perhaps shrink somewhat, but, as a rule, occupies fully as much space as the original obstruction, so that when all has been said and done, the patient has merely exchanged an obstruction of one kind for that of another. But he has fared even worse than that, for I have observed in such cases where spurs have been removed, a tendency to dryness and crust formation over the site of the old wound, long after it has completely healed. This is doubtless due to the fact that, during the operation, many glands of the mucous membrane are destroyed and removed and are never replaced, and the newly formed mucous membrane is not capable of functionating as efficiently as the old; so that the patient has not even made an equal exchange. One obstruction has been replaced by another, but the original mucous membrane has been replaced by one of a lower order. To one who carefully watches the wound for a few weeks after the operation, the natural course of procedure suggests itself.

About ten days after the operation the wound should be carefully cleansed. If cotton soaked in fluid vaseline is placed on the wound it softens the crusts so that they can be removed without causing hæmorrhage: then each granulation should be carefully cauterized; nitrate of silver, chromic acid, or any other effective caustic, it matters little. A convenient way is to fuse nitrate of silver on to a probe; in this way one can cauterize the granulations very thoroughly, and still limit the caustic action to the exact spot desired. This limitation is necessary, for if too extensive a surface is cauterized, a slough is apt to ensue, and to cause severe hæmorrhage; an unpleasant occurrence that has twice happened to me.

I have repeatedly removed granulations from the edge of the wound with a snare, for they often become of such a size as to readily permit of this.

The granulations should be cauterized so long as they continue to form; if they are touched on an average twice a week it keeps them under very good control; but each case is a law unto itself.

This treatment must be continued until the wound is entirely covered with mucous membrane, which usually takes from six weeks to two months; if the patient is troubled by a tendency for crusts to form over the site of the wound, the use of a little fluid vaseline or, better still, lanoline obviates this difficulty.

No operator should ever undertake to remove a spur from the sæptum without first explaining to the patient the necessity for after-treatment. If a patient cannot or will not submit to such after-treatment, then the operation should not be undertaken; for it is a matter of almost absolute certainty that eventually the operation will not be a success, rather the contrary, and that in the course of time the patient will be worse off than before the operation.

34 Washington Street.

OBSERVATIONS ON NITROGENOUS METABOLISM IN A CASE OF NEPHRITIS.

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In publishing the following notes, it is not my intention to make any original deductions, owing to the lack of sufficient material for observation. Though they may be of little clinical value, I present the mere facts, hoping that they may be used as material for reference by other investigators, and the results compared with those to be obtained in future cases.

It was originally suggested to me by Professor C. Van Noorden, of Frankfurt-on-Main, to conduct a series of experiments bearing on the action of different kinds of diet in nephritis; and particularly to note the relative effects of light and dark meat, as expressed by certain quantitative variations in the nitrogenous metabolism.

The question whether or not a nitrogenous diet ought to be recommended in nephritis has been a subject of much discussion among German clinicians. Senator (1) asserts that the ingestion of proteids in the form of meat exerts an injurious influence in these cases. He particularly condemns the dark forms of meat, believing that on account of the higher percentage of contained extractives, they are directly irritating to the kidneys.

Van Noorden (2) is very much opposed to this view, Van Noorden and Ritter (3) finding, as the results of experiments, that the proteids were very well borne by subjects of nephritis; and that the albuminuria ran very much the same course, regardless of the kind of diet and the form and quantity of albumen ingested. In regard to the danger of extractives in dark meat, Offer and Rosenquist (4) present the results of a large number of experiments, which show that the difference in percentage of extractives contained in various kinds of meat is very small, and maintain that any view alleging a distinctive physiological or therapeutic action for one kind or group is founded on groundless theory. Pick (5), in his experiments, did not find any marked variation in the degree of albuminuria under different forms of diet. Leube (6) comments on the danger of cutting down the albumen too much, and, favoring a daily quantity of from eighty to ninety grammes, recommends that where a milk diet is used, the same should be supplemented by an amount of fats and carbohydrates sufficient to make up for the loss in caloric value of the meat withdrawn. Bartels (7), Von Leyden (8), and Rosenstein (9) are all very conservative in recommending a highly proteid diet, except in chronic cases, and all three are of the opinion that certain forms of meat are injurious on account of the extractives. Saundby (10) condemns all beef-tea and soups for similar reasons. I shall only refer to the results obtained recently by Pabst (11), as they are somewhat in line with my own experiment, and, though his methods would not preclude every possible source of error, they are amply sufficient for clinical purposes.

With these considerations in view, the following experiment was carried out, to determine the total nitrogenous metabolism during a certain time, and on a fixed diet, by obtaining the quantity of nitrogen ingested and comparing it with the loss in urine and fæces; and at the same time noting the daily quantity of albumin lost in the urine, and observing the daily fluctuation in value of phosphoric and uric acid excreted.

Owing to the difficulty of obtaining suitable cases, and to the fact that a number of experiments were interrupted, or the results for various reasons thrown out, I am able to give only the results in the following case:

C. W., a man, single, German, paperhanger, aged thirty-two years. Previous history of syphilis and excessive alcohol. Was admitted to the Municipal Hospital, in Frankfurt-on-Main, March 6, 1900. He had been suffering for three months with characteristic symptoms of nephritis, growing continuously worse till the time he entered the hospital.

On admission, he showed pallor, good general nourishment, marked œdema of the face and lower extremities; moderate double hydrothorax; heart somewhat hypertrophied, sounds weak, but clear, second aortic sound accentuated; pulse slow, regular, of slight tension, vessels slightly thickened; moderate abdominal ascites; examination of liver and spleen negative in result. Ophthalmoscopic examination showed double albuminuric retinitis. The urine contained albumin, four per cent. (Esbach), granular and fatty casts, white blood cells, renal epithelium, no blood. *Diagnosis:* Chronic parenchymatous nephritis.

The method followed was to continue each plan of diet for a period of five days, keeping the total fluids at 1,500 cubic centimetres.

In the analyses of those articles of food common to both periods, in which the quantity of nitrogen would enter as a constant, the figures given are taken from the records in the laboratory of Professor Van Noorden, and are the average results of a large number of experiments.

In the first experiment I determined, myself, only the quantity of nitrogen in the beef and bread. Portions were sent to the laboratory each day, collected secure from evaporation, and after being finely divided, samples were taken for the analyses, when the following results were obtained by the method of Kjeldahl (12):

1.46 gramme of beef gave 0.0445 gramme nitrogen.
1.83 gramme of beef gave 0.0658 gramme nitrogen.
} Average nitrogen for 1 gramme = 0.0329 gramme.

1.5384 gramme of bread gave 0.024 gramme of nitrogen. } Nitrogen for 1 gramme = 0.0158 gramme.

From the foregoing we have the following table for diet in Experiment I:

	Quantities in grammes.	*Nitrogen.*	*Fats.*	*Carbohydrates.*	*Calories.*
Beef.	325	10.69	29.9	—	551.67
Potatoes.	100	0.45	—	16.60	79.58
Eggs.	100	2.19	10.9	—	56.00
Butter.	100	—	82.6	—	769.90
Bread.	200	2.56	—	100.0	475.53
Bouillon.	500	—	—	—	—
Coffee.	50	—	—	—	—
Total: fluids 1,500 c.c.		15.89			1,932.38

In Experiment II, I determined, myself, only the value of the nitrogen in the veal, by the same method (12):

Two grammes of veal gave 0.0652 gramme nitrogen. } Nitrogen for 1 gramme = 0.0326 gramme.

	Quantities in grammes.	*Nitrogen.*	*Fats.*	*Carbohydrates.*	*Calories.*
Veal	325.0	10.59	29.9	—	549.37
Potatoes. . . .	100.0	0.45	—	16.60	79.58
Eggs.	100.0	2.19	10.9	—	56.00
Butter.	100.0	—	82.64	—	769.60
Bread.	200.0	2.56	—	100.00	475.53
Bouillon. . . .	500.0	—	—	—	—
Coffee.	50.0	—	—	—	—
Total: fluids 1,500 c.c.		15.79			1,930.08

The fæces for each period were collected, a dose of charcoal at the beginning of each period serving as a means of demarcation for each experiment. They were then dried over a water bath and pulverized in a mortar and the quantity of nitrogen obtained in weighed samples by Kjeldahl (12) as follows:

EXPERIMENT I.

Gramme 1.15 gave 0.0686 gramme nitrogen. } Nitrogen for 1 gramme = 0.0596 gramme.

Fæces dried for five days,	*Total nitrogen,*	*Daily average,*
119.5 grammes.	7.12 grammes.	1.420 grammes.

EXPERIMENT II.

Gramme 1.044 gave 0.0618 gramme nitrogen. } Nitrogen for 1 gramme = 0.0573 gramme.

Fæces dried for five days,	*Total nitrogen,*	*Daily average,*
135.0 grammes.	7.7355 grammes.	1.547 grammes.

The quantity and specified gravity of the urine were noted for each day. The total nitrogen in the urine, including that of the albumin, was determined by the method of Kjeldahl (13). The albumin was separated by boiling and acidifying, and after being filtered and washed, was determined from the amount of nitrogen obtained by treating according to Kjeldahl (13), using the coefficient 6.25. Phosphoric acid was determined by simple titration with uranium nitrate solution (13). The uric-acid determinations were made according to the method of Ludwig and Salkowski (13), but instead of weighing the acid obtained in the final reaction, it, also, was treated according to the method of Kjeldahl, and from the amount of nitrogen obtained, the uric acid was determined, using the coefficient 2.95 (14).

EXPERIMENT I.

	NITROGEN.					URINE.						
								Albumin.				
Day.	*In Food.*	*In Fæces.*	*Absorbed.*	*In Urine.*	*Bal'ce.*	*Amount, in c.c.*	*Sp. gr.*	*Amount.*	*Per cent.*	P_2O_5	*Uric Acid.*	*Body weight in kilograms.*
1.	15.89	1.42	14.47	16.51	2.04	1,180	1.026	14.36	1.21	2.01	0.2832	73.5
2.	15.89	1.42	14.47	15.40	0.93	1,060	1.028	15.42	1.45	1.95	0.3302	—
3.	15.89	1.42	14.47	15.95	1.48	1,100	1.026	15.62	1.42	2.04	0.8038	—
4.	15.89	1.42	14.47	16.49	2.02	1,200	1.023	18.60	1.55	2.13	0.3326	—
5.	15.89	1.42	14.47	14.50	0.03	930	1.026	14.41	1.53	1.91	0.3030	73.8
Totals. . .	79.45	7.10	72.35	78.85	6.50			78.41	= 12.54 grammes of nitrogen.			

EXPERIMENT II.

	NITROGEN.					URINE.						
								Albumin.				
Day.	*In Food.*	*In Fæces.*	*Absorbed.*	*In Urine.*	*Bal'ce.*	*Amount. in c.c.*	*Sp. gr.*	*Amount.*	*Per cent.*	P_2O_5	*Uric Acid.*	*Body weight in kilograms.*
6.	15.79	1.54	14.25	17.28	3.03	975	1.027	17.89	1.75	2.31	0.4174	73.8
7.	15.79	1.54	14.25	17.58	3.33	1,100	1.025	13.38	1.21	1.98	0.7304	—
8.	15.79	1.54	14.25	16.34	2.09	1,000	1.026	15.57	1.35	2.26	0.7720	—
9.	15.79	1.54	14.25	20.56	6.31	1,200	1.028	18.19	1.51	2.84	0.8718	—
10.	15.79	1.54	14.25	17.19	2.94	970	1.027	15.95	1.64	2.34	0.6966	75.3
Totals. . .	78.95	7.70	71.25	88.95	17.70			80.98	= 12.95 grammes of nitrogen.			

The results of the experiments are shown in the foregoing two tables, the figures being the average of double analysis:

The figures denoting quantities for twenty-four hours are given in grammes. Deducting from the total nitrogen in the urine the quantity referable to albumin we get the following table for nitrogen balance:

IN EXPERIMENT I.

Food.	*Fæces.*	*Absorbed.*	*Urine.*	*Balance.*
79.45	7.10	72.35	66.41	5.94

IN EXPERIMENT II.

Food.	*Fæces.*	*Absorbed.*	*Urine.*	*Balance.*
78.95	7.70	71.25	76.10	4.85

showing that the albuminuria practically enters as a constant factor in both periods, the difference between the balances of the two periods being approximately the same in both series.

Taking up briefly the results of the experiment, we find the loss of nitrogen in the fæces is about the same for each period (8.91 per cent. and 9.75 per cent.); both are, however, abnormally high. This was observed in a large number of cases of nephritis by Van Noorden and Ritter (3). Van Noorden (15) does not venture to say, however, whether this is due to the lack of absorbing power in the alimentary tract, or whether, on account of the kidney's diminished excretory power, nitrogen in the form of urea is resecreted by the intestine.

The nitrogen balance shows a high loss for both periods. The fact that this is so much higher during the second, at the time when the patient was on what would be considered the more suitable diet, cannot, however, be attributed to the change in food. From nitrogen determinations made in a previous experiment on the same patient, it would appear that there was a continuous increase in the amount of nitrogen eliminated daily, and a reasonable explanation for the fact that nitrogenous equilibrium was not maintained at the time, would be, that during the more acute stage of the disease, when the powers of the kidney were much diminished, there was stored up in the body a large amount of nitrogenous waste products, and that these were suddenly released and got rid of (13) (15). It is interesting to note here that it has been stated that the amount of urea was always diminished in nephritis (16). Van Noorden found that the figures for nitrogen elimination in various forms of nephritis were subject to wide and sudden fluctuations in the same individual (3) (15).

The figures for uric acid are well above the normal minimum, and this agrees with the results obtained by Stadthagen (17), who found that in nephritis the uric acid was neither relatively nor absolutely diminished. His views were later confirmed by Ackeren (18) and Zuelzer (19). In my experiment, the figures are considerably higher for the second period as compared with the first, corresponding, no doubt, to the increased total nitrogen elimination; but this result may, in part, be due also to the specific action of the veal.

Phosphoric-acid elimination does not show anything characteristic. The daily fluctuations are not very marked, and generally correspond to the daily variations in nitrogen elimination.

I do not think that this material is sufficient for me to draw any inferences from, and in conclusion I only wish to thank Professor Van Noorden for his kind suggestions, and for placing at my disposal his laboratory and material; also his assistant, Dr. Horn, for his help in carrying out the work.

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Therapeutical Notes.

Chrysarobin in the Treatment of Hæmorrhoids.—Pounne (cited in the *Journal des praticiens* for November 28th), who has employed chrysarobin successfully in the local treatment of hæmorrhoids, gives the following formulæ:

℞ Chrysarobin	1 grain;
Iodoform	0.03 grain;
Extract of belladonna	0.015 grain;
Cacao butter	30 grains.

M. Make a suppository. Two or three such suppositories to be used daily.

℞ Chrysarobin	22 grains;
Iodoform	8 "
Extract of belladonna	15 "
Vaseline	6 drachms.

M. Make an ointment.

A Lotion for Tinea Favosa.—The following has proved very serviceable:

℞ Sodium hyposulphite	1½ ounce;
Dilute sulphuric acid	2 drachms;
Water	to 8 ounces.

M.

For Pyrosis.—The following pill is useful:

℞ Zinc oxide	2½ grains;
Powdered opium	½ grain;
Extract of hyoscyamus	2 grains.

M.

For Gonorrhœa.—The following internal treatment has been found very serviceable:

℞ Fluid extract of corn silk	½ an ounce;
Spirit of nitrous ether	½ an ounce;
Balsam of copaiba	1 ounce;
Mucilage	½ an ounce;
Water	to 6 ounces.

M. A dessertspoonful to be taken three times daily.

For Cerebral Congestion.—The following has been highly recommended:

℞ Potassium bromide	3 drachms;
Fluid extract of ergot	2 "
Water	to 6 ounces.

M.

One tablespoonful to be taken three times daily. This mixture has been found serviceable as a prophylactic after severe head injuries.

For Ovarian Neuralgia.—The following pill has proved of great service:

℞ Camphor monobromide	1½ grain;
Powdered capsicum	2 grains;
Confection of roses	enough to make 1 pill.

For Watery Gleet.—A good injection is:

℞ Tannic acid	4 grains;
Mucilage	1 drachm;
Water	to 1 ounce.

M.

For Chlorosis and Anæmia.—Dr. Claude Muirhead has recommended the following pill:

℞ Sulphate of iron	of each ½ an ounce.
Carbonate of potassium	
Gum tragacanth	

M. To be made into 96 pills, of which one may be taken thrice daily.

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THE NINETEENTH CENTURY IN MEDICINE.

WHEN the nineteenth century dawned, the medical profession was still dazed, so to speak, with the practice of vaccination, which had been inaugurated only three years before. The discovery was empirical, and so was the practice that followed it. It gave rise to no end of speculation, but not to one jot of that rigorous experimental study that a like occurrence would now occasion. The time was not ripe for its culmination in what are now known as the germ theory of disease and the antitoxine system of treatment. The profession had not emancipated itself from the "Hippocrates dixit" slavery, though isolated individual effort, notably by such men as Morgagni, had long before paved the way for that rational study of medicine which has characterized the last quarter of the century. Men were content, as a rule, to listen to the plausible; they were even satisfied to sit at the feet of the nosologists and drink down words in lieu of facts. Exposure to cold was accepted as the common cause of acute diseases, and bloodletting, starvation, mercury, antimony, and opium were the "sheet-anchors" of therapeutics. Even so late as in the third quarter of the century a professor in one of the leading American medical schools—as conspicuous a school then as it is now—satisfied his classes by reading from the hospital case-books and from the writings of Gendrin and Piorry. This was what was then known, at least in the United States, as clinical teaching. As for didactic teaching, which was almost the only variety of public medical instruction, it was gauged more by the rhetorical powers of the professor than by the purport of what he had to say. Fortunately, the apprenticeship system—for such, virtually, was the relation between the student and the private preceptor—made good some of the deficiencies of the school curricula. The study of gross anatomy was hampered in this country and in some others by scarcity of material, histology was in its infancy, physiology was speculative, pathology was a matter of plausible suggestion; diagnosis, save at length for Laennec's resort to auscultation and percussion, rested almost solely on subjective symptoms, and the treatment of disease was traditional, not to say empirical. "Peritonitis" was prevalent and almost invariably fatal, and a major amputation was well-nigh equivalent to a death warrant.

But through all this period of apparent stagnation influences were at work which were destined to raise medicine from the position of a respectable trade to that of a science ever more and more bordering upon the exact. Auscultation and percussion, the use of the microscope in diagnosis and pathology, uranalysis, Bright's unmasking of dropsy as a disease and his demonstration that it was only a result of disease, Sir Everard Home's varied investigations, Addison's exposition of the disease of the suprarenal capsule that now bears his name, Louis's "numerical method" of studying disease, Trousseau's genius as a clinician, and the gradually growing conception of the value of experimental methods of research were preparing the way for the rigid and triumphant medicine of the last quarter of the century now closing. Besides all this, there had been some epoch-making advances. Conservative surgery, as expounded by Syme and Chopart, was growing into recognition, and the doctrine of the self-limitation of certain diseases and the "expectant" method of so-called treatment, barren as they were of immediate results, caused the profession to halt and to take a new start. In the mean time some startling things had been accomplished; Ephraim McDowell's boldness and success in ovariotomy had slowly come to be recognized as foreshadowing an immense saving of life, and the discovery of anæsthetization by at least two Americans, Morton and Long, independently, had practically done away with anguish under the surgeon's knife and amazingly widened the sphere of operative surgery. But it was not until after all this, together with the introduction of clinical thermometry and the definitive abandonment of "lowering measures" in therapeutics, that medicine entered upon its real nineteenth century career. The pivotal events of the century have been the establishment of the germ theory of disease, its culmination in antitoxine treatment, and, the crowning glory of all, the development of preventive medicine.

Nevertheless, it may not be unprofitable to enumerate some of the individual steps in the advance of our work. As regards gross anatomy, little more is known now than was known to our forefathers of the eighteenth century. In minute anatomy, well-nigh all that we now know has been revealed during the century that is drawing to a close, and we should not forget that we owe much of it to the botanists, whose observations we have been able to adapt to our research into animal structure. The subjects of gross and microscopical anatomy naturally run into that of physiology, and on all three of them embryology sheds a flood of light. The work of the histologist and that of the embryologist have played an extensive part in making our knowledge of physiology what it now is. William Beaumont's careful experimental study of the digestive function of Alexis St. Martin, who was the subject of a permanent gastric fistula, did much to stimulate the precise investigation of physiological processes. Deliberate experiments on the lower animals have, however, been the chief means of advancing our ideas of physiology, but they have been notably supplemented by such studies of the living human organism as have led to what is now held concerning cerebral localization, also by such unintentional experiments as have been involved in certain surgical procedures, removal of the thyreoid gland, for example. But pure reasoning has contributed not a little to shaping the investigations on which our present conception of "internal secretions" rests; let us not forget that Brown-Séquard, ridiculed as he has been for his propositions concerning the therapeutical use of "testicular juice," gave the initial impetus to those investigations. The use of disgusting animal preparations in the pharmacy of bygone centuries rested on no rational basis, so far as we can now ascertain, and it may be said in all fairness that it had nothing in common with the organotherapeutics of the present time. We now know that organs which but a few years ago were of no imaginable use in the economy have very definite functions. This is perhaps, next to phagocytosis and the natural evolution of antitoxines, our greatest advance in physiology, possibly the very greatest, for phagocytosis and the production of antitoxines seem to take place only when the system is attacked by the germs of disease.

In the early part of the century nosology was a favorite theme with writers who thought they had a mission. Few of us now give much thought to the nomenclature and classification of diseases, save perhaps the dermatologists. The coinage of new names, to be sure, goes on briskly enough, one would think, to satisfy even the fertile Piorry, and largely along lines not at all preferable to those followed by him, but, happily, there are indications that the profession is tired of the business. The task we set ourselves now is not that of finding a name for a morbid condition, but that of ascertaining its nature and probable course, the means of preventing its aggravation in the particular individual and its spread to others, and the measures that are most likely to carry the patient safely through the illness while allaying his sufferings to the last degree consistent with his ulterior welfare.

In pathology, the old contest between the humoralists and the solidists has been forgotten; in fact, in the whole range of the medical sciences, we long ago perceived the fallaciousness of groping for a law which should be of universal application. We now seek to elicit facts and to understand their relations to each other. When plausibility and persuasive diction finally ceased their sway, we were left with nothing to cling to in the way of general doctrine, but we were left with a clear field. The incubus was shaken off, and we awoke. Naturally, much time had to be spent in observations that were for the time being almost barren as ground for generalizations, and the tendency to hasty general deductions had still to be fought against. But men arose that were capable of laying solid and enduring foundations for the fair edifice, still uncompleted, of modern pathology. The work of Chomel, Louis, Rokitansky, Paget, Gross, Cohnheim, Virchow, Lancereaux, Metchnikoff, Welch, Laveran, Fitz, Councilman, Prudden, Kitasato, and a host of others will never be forgotten or undone, for the simple reason that there is nothing speculative about it. The pathologists of the nineteenth century have taught us that typhus, typhoid fever, pulmonary consumption, cholera, yellow fever, the Oriental plague, pneumonia, malignant pustule, tetanus, and malarial disease are infective and due each to its individual *materies morbi*, or *contagium vivum*, what early in the century would have been styled a "morbid poison."

So intimately blended are the medical sciences that we can tell the story of modern pathology no further, even in these general terms, without taking up that of ætiology, and that, in turn, is so interwoven with diagnosis, therapeutics, and prophylaxis as to prove refractory to all attempts at isolation. However, there are certain salient points of ætiology which deserve mention by themselves. Patrick Manson's demonstration of the pathogenic importance of the *Filaria sanguinis hominis*, preceded by similar work by Van Beneden, Küchenmeister, and Cobbold, has given an impulse to the investigation of morbific parasites that is undoubtedly destined to go on to the solution of many an ætiological problem that still remains unsolved. The germ theory of disease, for which we are really indebted to Pasteur, is unquestionably the fulcrum of the ætiology, pathology, and therapeutics of the present day. We no longer, save in a remote sense, attribute disease to the visitation of Providence or exposure to cold; we know that in the great majority of instances disease is due to an invasion from without, and not to perversity on the part of the almost divine organism with which the Almighty has endowed us. Constitutional defects and heredity, in our present view, play but a subsidiary part in ætiology, and "scrofula" is relegated to the lumber-room. The "favorable soil" for disease is a soil made favorable by some defect, usually an acquired one, of the normal resisting powers.

It has been made clear during the century, and chiefly in its closing years, that all the infectious diseases are traceable to living germs, each disease having its specific microbe, and the avenues of contamination with these germs have been so fully explored that comparatively little remains to be done in that direction. It has been shown that typhoid fever is almost exclusively a "waterborne" disease, that we take the germ in with the water we drink. But, complete as the demonstration is, it has been a difficult task to rouse the average man from his sluggish incredulity, and consequently the work of guarding against injurious impurities in our supplies of drinking-water still lags far behind what our civilization demands. It has been shown also that "the harmless, necessary" fly is an active agent in disseminating typhoid fever and certain other diseases, notably malignant pustule, and that malaria has nothing to do with "bad air" and is not a baleful emanation from the earth, but is produced solely by Laveran's plasmodium, which is nurtured for a portion of its life history in the organism of certain mosquitoes. Furthermore, there is now good reason to believe that yellow fever is spread by mosquitoes. It has been shown that tetanus is in no wise dependent upon the character of the wound that precedes it, though there is doubtless a misleading truth in the popular impression that "stepping on a rusty nail" is peculiarly apt to be followed by the disease. There is nothing malign in the nail, in the rust, in the punctured character of the wound, or in the fact that it is the tendinous structures of the foot that have been injured—there is nothing malign in any one of these things *per se*—the preeminence of the rusty nail as an occasion of tetanus is very simply explained; before it can be stepped on, it must generally be situated on the ground, and, when it proves productive of tetanus, on soil contaminated with the germ of the disease. The theory that tetanus is essentially a disease of the horse, fortified as it is by almost conclusive proof that the infection of the disease comes in the great majority of instances from the soil beneath and about a stable, seems likely to be substantiated. It has been shown that osteomyelitis and the other causes of the fearful old-time mortality of major amputations, operations on joints, and those involving abdominal section are due to pathogenic germs. Puerperal fever, declared by Oliver Wendell Holmes and demonstrated by Semmelweis to be the product of infection from without, is now so interpreted the world over, to the enormous saving of women's lives. Destructive diseases of the teeth and their sockets are now traced to pathogenic germs, and it is hardly too much to expect that as a consequence the dentist's art will be practically restricted before long to the saving of the natural teeth in all but traumatic cases. Functional nervous affections of various sorts are largely attributed to peripheral irritation, including "eye strain," and their treatment has accordingly grown more promising. In place of the multitudes who formerly died of so-called "peritonitis," we now see the vast majority of persons who have been attacked walking about in good health, simply because the commonest cause of the disease has been ascertained to reside in the vermiform appendix, an organ that is removed with great facility and with hardly an appreciable mortality. The doctrine of "latent gonorrhœa" as a fertile cause of uterine and other pelvic disease of a painful, disabling, and even dangerous character, proclaimed years ago by Noeggerath, is now commonly accepted, though not, of course, to the exclusion of other sources of infection, and as a consequence more radical measures are resorted to for the cure of those affections, procedures but little dangerous in themselves, although, it must be confessed, often fraught with undesirable mutilation. The ætiology of gonorrhœa itself has led quickly to the Janet treatment, which would otherwise have been indefinitely deferred, with the results that not only is the primary disease speedily cured, but serious complications affecting the joints, the heart, and other important structures are prevented.

The art of diagnosis has been notably advanced during the century, both by the recognition of new signs and symptoms and by the adoption of means of investigation previously unknown or unappreciated. Among the former may be mentioned the Cheyne-Stokes type of respiration, the rose spots of typhoid fever, the *tache cérébrale,* derangements of the reflexes, disturbances of muscular coordination, Kernig's sign of cerebral meningitis, and various abnormities of sensibility. Two of the old routine diagnostic procedures, the examination of the pulse and that of the tongue, have come to be regarded as often of secondary importance. This is especially true in the case of the tongue, and perhaps the tendency has been carried too far. The universal use of the clinical thermometer has doubtless been the chief reason why the pulse has been somewhat neglected of late years, except in cases calling for something more precise than the *tactus eruditus.*

Auscultation and percussion, although supposed to have been practised to some extent by Hippocrates and perhaps by others of the ancients, were, nevertheless, devised and systematized by Laennec comparatively early in the century. With uranalysis, they undoubtedly constitute the most important diagnostic means introduced during the century, on account of the frequency with which we are compelled to resort to them, if for no other reason. All of them have been brought to great precision, a nicety more striking perhaps in the case of uranalysis by reason of ureteric catheterism and of the association of urinary examinations with the various procedures for ascertaining the particular portion of the urogenital tract from which certain morbid products proceed. Side by side with them, clinical microscopy has progressed to such importance that no man can now practise medicine in a manner to be tolerated in a civilized community without constant recourse to it.

Clinical thermometry came in the third quarter of the century, and its infinite superiority to interrogation of the pulse was quickly demonstrated. Doubtless the use of the thermometer has occasionally given rise to needless alarm, but almost invariably it may be interpreted with great certainty. Often it dispels unnecessary anxiety as in a twinkling by its negative indication, and surely it is to be credited with being distinctly diagnostic in those diseases of which it has itself established the "curve." He who should now attempt to understand the nature and probable course of acute illness without the aid of the thermometer would find himself hopelessly handicapped; one might almost as well trust to subjective symptoms, to the vague and inaccurate stories of the sick and their friends. Examination of the blood and the counting of its red and white corpuscles are now of such recognized value that they figure in a very large proportion of case histories, and the recognition of the *Plasmodium malariæ* in its various phases is a *sine qua non* in the precise diagnosis of malarial diseases. Ehrlich's "diazo" reaction and Widal's agglutination test have materially augmented the data of precision in the diagnosis of typhoid fever.

But it is in the diagnosis of morbid conditions by the employment of special instruments that more numerous advances have been made. Ample notions of their number and of the great aid they render in the recognition and often in the treatment of disease may be gathered from a mere enumeration of the more important of them. We may therefore rest content with mentioning Nélaton's porcelain-tipped probe, Girdner's telephonic probe, the æsthesiometer, the cyrtometer, the ophthalmoscope, the ophthalmometer, trial glasses, the laryngoscope, the Eustachian catheter, the sphygmograph, the gastric douche, the diaphanoscope, Turck's gyromele, the urethroscope, the urethrometer, the bougie à boule, the cystoscope, the ureteral catheter, the vaginal speculum, Simpson's uterine sound, Sims's uterine probe, the anal speculum, the proctoscope, electrical apparatus for detecting nervous and muscular reactions or their absence, exploratory puncture, the aspirator, and the Röntgen-ray apparatus. Add to all these resources exploratory abdominal section, now employed with but little danger, and we are giving a sufficient picture of the great strides made in diagnosis during the century.

Chemistry, pharmacology, and pharmaceutics have not lagged behind in the march of improvement. The isolation of the active principles of medicinal plants has led the way to drugs of definite strength as well as of less repugnant properties, and these active constituents, together with a great number of synthetical products, have enabled us to produce palliative and curative effects before impossible of achievement. Morphine and codeine, for example, are far more to the purpose in many a case than the crude drug from which they are extracted, and the same is true of quinine, strychnine, atropine, eserine, pilocarpine, and cocaine—of the last-mentioned preeminently—also of many other natural alkaloids and glucosides. The introduction of cocaine as a local anæsthetic by Koller proved an immediate boon to sufferers with eye troubles, and the rapid extension of its use to surgical procedures the most diverse has been almost as satisfactory. Its use within the membranes of the spinal cord, to produce anæsthesia of the lower portion of the body, devised by Corning, is still *sub judice;* in previous issues we have said all that we can say at present concerning it. The employment of atropine or of some substitute for it in ophthalmic practice could not be dispensed with, and the varied usefulness of the drug in other fields is hardly less pronounced; it would remain invaluable if it had no other virtue than its life-saving power in many cases of mushroom poisoning.

Of the numerous artificial products, chloral hydrate came first, and it was at once shown to have soporific properties quite foreign to safe doses of any hypnotic previously known. Then came antipyrine, acetanilide, and the host of synthetical antipyretics and analgetics that have come into more or less general use. The speedy reduction of a febrile temperature as the result of a single dose of a drug had not been dreamed of before. Apomorphine, a quick and sure emetic, has saved many a life that was in imminent danger from the ingestion of poison, having the unique advantage of acting when used subcutaneously, so that unconsciousness on the part of the patient is no bar to its employment. Many hypnotics, notable among which is trional, have been introduced since chloral came into use, and they have proved to be preferable to that drug in many conditions, as well as safer.

Numerous antiseptics have come to be used during the last few years. Among the first was iodoform, a malodorous drug which seems now to be meeting with depreciation that is not wholly deserved. Carbolic acid, Lord Lister's original antiseptic, is still in extensive use, but the spray has properly been abandoned. An important safeguard in the employment of the acid, pure or in strong solution, has been furnished by Powell's discovery that strong alcohol, applied at once, prevents its poisonous action.

The older articles of the materia medica have been subjected to fresh investigation. Notable among the results are those that seem to have sprung from Credé's experiments with metallic silver and certain colloid compounds of that metal, tending to show that they have decided germicidal virtues and to suggest that Sims's early successes in the treatment of urogenital fistulæ were truly in some measure due to his use of silver wire as a material for sutures. Digitalis is one of the old drugs that have been made the subjects of repeated investigations, and as a consequence our use of it and of its different proximate principles is now far more rational and effective than it was some years ago. In a few instances a distinct gain has been achieved by restricting the use of a drug. For example, we no longer look upon ergot as a *pulvis ad partum* (deservedly declared to be equivalent to *pulvis ad mortem*), but reserve its use, so far as obstetrics is concerned, for the third stage of labor and for a brief period following the completion of delivery.

Some of the text-books of fifty years ago occasionally mentioned the use of electricity as a measure that might be resorted to in certain morbid conditions when everything else had failed. It was held in rather lower esteem than horseback exercise and sea-bathing. It was always referred to in the vaguest terms, and whenever it was used, which was very rarely, it was in the form either of the direct galvanic current or of that from the magneto-electric machine. Its haphazard employment doubtless did quite as much harm as good, for it was largely in the hands of the quacks, and those of them who resorted to it as their cure-all were forever flaunting before the public the dictum "Electricity is life." But before many years more had passed electricity, which from the physicist's point of view had already been made the subject of researches which were to culminate in its present multifarious usefulness to mankind, was investigated by the physiologist and then by the experimental therapeutist. As a result of these investigations, we employ it now in everyday practice, not only as a precious diagnostic test, but also with well-founded expectations of its definite therapeutical action in a great number of morbid conditions. Nobody now prescribes its use under the bald appellation of "electricity;" we specify the form of apparatus to be employed, the galvanometric registration (if galvanism is the form intended), the precise points to which the electrodes are to be applied, and the duration and frequency of the applications. Besides electric cauterization and electrolysis, we depend upon the definite remedial action of electricity according to the details of its employment. In short, it has been made a thoroughly manageable therapeutical agent.

Among our new therapeutical resources the organic extracts and juices are, indeed, remarkable, not alone for their efficiency as remedies, but also for the light their employment has shed on physiology. Organs like the thyreoid gland, the thymus, and the suprarenal capsule, of whose functions we knew nothing a few years ago, have proved to have very definite and important parts to play in the economy. Their use in therapeutics is unquestionably destined to enlarge materially the scope of our remedial power. The list of organs has already been nearly if not quite exhausted by the experimenters, but we may be sure that not all their properties have yet been mastered; that, however, we may look upon as but a matter of a little time.

The theory of the attenuation of viruses, conceived and put into practice by the immortal Pasteur, has resulted, as we firmly believe, in a striking reduction of the world's mortality from rabies. It has been demonstrated to our satisfaction that the Pasteur treatment, employed early enough, is a sure prophylactic, save in a very small percentage of cases, provided the bite inflicted by the rabid animal does not involve parts so situated as to favor the quick spread of the virus to the central nervous system. There are those who deny this, we are quite aware; we are only expressing our own conviction.

A decade or so ago Robert Koch astonished and dazzled the whole civilized world by the announcement that he had succeeded in producing a derivative of the tubercle bacillus which he thought might prove curative of tuberculous diseases. We may be pardoned for here referring to the fact that at the time of his statement that his tuberculin had been perfected we cautioned our readers not to be over-confident of its curative power. It took comparatively but a short time to prove that we were justified in the attitude we had assumed. To the best of our knowledge, we then stood alone in our opinion of the tuberculin treatment. It did, however, prove of some efficacy in lupus and a few other forms of localized tuberculous disease, but was soon abandoned as a remedy for pulmonary consumption; moreover, tuberculin showed itself a useful product as a test of the presence of incipient tuberculous disease in neat cattle, and it is still used extensively in that capacity. Koch's recently promulgated *tuberculinum residuum* (T. R.) is now on trial, with none of the old zeal in its favor, and, we think, with the odds against it.

Before proceeding to consider the antitoxines proper, we must devote a few words to the therapeutical employment of natural and artificial serum. It has been observed that the normal serum of certain animals that are insusceptible to particular infectious diseases, if injected into the human blood current or even into the subcutaneous tissue, confers more or less of immunity against those diseases. This observation has not yet been largely acted upon, but we may look to see it play an important part in the therapeutics of the future. Artificial serum seems to have been first employed by Edmund R. Peaslee as a benign application to the peritonæum in the operation of ovariotomy. His conception of its mode of action is not very clear, but he was a very successful ovariotomist, and we can only conjecture that he builded better than he knew, like many another man. A few years ago much was expected from transfusion of blood, but gradually the conviction has forced itself upon us that it is well-nigh useless, and, indeed, that, on the whole, it is worse than useless. It has virtually been abandoned; so also has the infusion of milk, which had an extremely evanescent vogue a few years since. But experiments in transfusion have not been fruitless; they have culminated in demonstrating the inestimable value of infusions of "normal," or "physiological," solutions of sodium chloride, and not only of infusions, but also of peritoneal irrigation with such solutions. Many a life has been saved by resorting to this measure, even in apparently desperate cases.

To Behring and Roux must the chief credit be given of having worked out the antitoxine treatment of diphtheria and of having thereby not only reduced the mortality from that devastating disease to a point far lower than had ever been attained with any other therapeutical measure, but also greatly encouraged and stimulated work of a similar nature in the direction of getting the mastery over several other formidable infectious diseases, chief among which are tetanus, the Oriental plague, typhoid fever, pneumonia, pulmonary consumption, and septicæmia. We are quite aware that some acute observers, who are at the same time close reasoners, still deny that the antidiphtheritic serum has any real remedial efficacy, but those who have seen most of it are firm in their conviction of its great efficiency, and theirs, we think, is the general verdict of the profession. If we accept the antitoxine theory as established, we must grant that, besides having strengthened therapeutics amazingly, it has fixed forever our notions of the nature of acquired immunity to infectious diseases.

The open-air treatment of pulmonary consumption is one of the grandest triumphs of the medicine of the nineteenth century. The profession is now thoroughly convinced that tuberculous pulmonary disease is eminently curable in its early stage by such simple measures as rest, with constant exposure to the open air of a salubrious region and a generous diet of highly nutritious food, also that it is curable even in the absence of one or more of these favorable conditions—nay, that it often ends in spontaneous recovery without the assistance of any of them, which fact, however, in no wise excuses failure to press them all into service. The general public is slowly getting to recognize that the consumptive is not necessarily doomed. Facilities for treating the consumptive poor on a large scale are now at hand, or shortly will be, and we may look forward to seeing "the great white plague" conquered within a very few years.

The cold-bath treatment of typhoid fever, the practice of enteroclysis employed in Asiatic cholera, the supporting treatment of pneumonia, the use of the salicyl compounds in rheumatism, the Bad Nauheim system of effervescent baths and resisted exercises for various organic diseases of the heart, the use of antivenomous serum in snake-bites, the elimination of injurious germs from the food of infants as a preventive and curative measure against diarrhœal diseases, the subcutaneous administration of ether in collapse, the parenchymatous employment of antiseptics in phlegmonous inflammation, the use of gelatin in hæmorrhages, the application of ice in sunstroke, the thyreoid treatment of myxœdema, and the preventive treatment of ophthalmia neonatorum are some of the means by which the medicine of the present day saves life and lessens suffering.

In obstetrics, we may point to the virtual extinction of puerperal fever, to the suppression of craniotomy in the case of living children, to the extended use of the forceps, with its immediate abbreviation of suffering and its prevention of ulterior sloughing and fistulæ, to the revival of symphysiotomy and laparo-elytrotomy, to the well-nigh assured safety of the modern Cæsarean operation, to the Credé method of expression of the placenta, to greatly improved procedures for the resuscitation of asphyxiated children, and to the *couveuse* for saving life in the case of puny children and those prematurely born as achievements that have wonderfully reduced both the maternal and fœtal mortality.

Turning to the domain of surgery, we have to record results so brilliant as almost to eclipse the achievements of general medicine, certainly in the estimation of the laity. Buck's "elastic extension," together with James L. Little's substitution of the plaster-of-Paris splint for the old-fashioned starch bandage, has led to the ambulant treatment of simple fractures now so largely practised, and antisepsis has almost abolished the danger formerly incident to compound fractures. Manipulation has well-nigh superseded forcible traction in the reduction of dislocations, to the great diminution of suffering. Crooked bones are made straight by means of osteotomy. Pott's disease of the spine is cured, as is also hip-joint disease, by modern orthopædic procedures. Joints are opened fearlessly under the observance of antiseptic precautions. The reproduction of hopelessly diseased bones is often accomplished by saving the periosteum in the operation for their removal, and osteoplasty has been brought to a high state of excellence. Simpson's acupressure and particularly the Esmarch bandage have been found powerful means additional to those before in our possession for the control of hæmorrhage, and side by side with these ingenious devices we must place Maisonneuve's écraseur and Syme's operation for traumatic aneurysm.

In the surgery of the head, trephining has been rendered almost free from risk, and the telephonic probe, cerebral localization, and Röntgen photography have powerfully conduced to the sure and safe removal of foreign bodies from the brain. Cerebral abscesses and tumors of the brain are often successfully attacked, and cranial paracentesis is hardly to be dreaded. Various important ophthalmic operations are now performed with a percentage of successful results deemed unattainable but a few years ago. For example, the extraction of cataract, though practised before the nineteenth century, was not of such well-nigh universal employment as it has now become. Iridectomy has come into use, both as an adjunct to the operation for cataract and for the relief of many other morbid conditions, notably glaucoma. To cite only one of the many advances in the surgery of the ear, the progress made in saving life when it is threatened by such frightful conditions as often attend mastoid suppuration has been nothing short of the marvellous. Deformities of the nose, both the visible and the concealed, are so frequently minimized or altogether done away with by surgical procedures, that surgical rhinology may be said to have taken gigantic strides. Pharyngeal adenoid vegetations, the pathological relations of which were pointed out by Wilhelm Meyer, are no longer, with the surgeon's consent, allowed to stand in the way of robust adolescence. O'Dwyer's procedure of intubation of the larynx, so far superior to Bouchut's abandoned method as to be practically a new operation, is recognized the world over as a life-saving device of the first magnitude. Endolaryngeal treatment, many years ago practised to some extent by Horace Green, who encountered persecution as a consequence, has been so facilitated by Garcia's laryngoscopy that it is a matter of everyday practice. Laborde's device of rhythmical traction of the tongue to stimulate the respiratory centre in cases of suspended animation seems to have been the means of saving life in many cases of apparent death by drowning and in a few instances of lightning-stroke, and to constitute a distinct addition to our resources. Thyreoidectomy has come to be a recognized operation and one of great value in cases of goître, but we have learned the lesson that it is unsafe to remove every vestige of thyreoid tissue, lest myxœdema, a recently discovered morbid condition, should result. Fortunately, the demonstration of the strumiprivous origin of myxœdema has been followed by its successful treatment by means of thyreoid feeding, and the scope of this therapeutical procedure has been so enlarged as to take in a number of other pathological conditions.

The surgery of the œsophagus has been essentially a product of nineteenth century progress. External œsophagotomy and internal operations have almost given us the mastery of strictures of the gullet. Stenosis of either orifice of the stomach, too, is now remedied with a close approach to certainty, and even the entire stomach has been removed in several instances, with the result of prolonging the life of the individual. Intestinal anastomosis, with the employment of the Murphy button and other similar devices, has enabled us to remove malignant and other intestinal tumors and constricted areas. Colotomy for the relief of stricture of the large intestine has within recent years been elevated to the rank of an operation that we need feel little hesitation in resorting to. Willard Parker's abdominal section for abscesses consequent on disease of the vermiform appendix has developed into the formal procedure of removal of the appendix, an operation now in common use throughout the civilized world and acknowledged to be one of our most precious means of saving life. Kraske's bold invasion of the rectum by partial resection of the sacrum has materially enhanced our power of dealing successfully with many cases of serious disease of the lower intestine.

In thoracic surgery, the prominent advance has been in the evacuant treatment of pleural empyema, including Estlander's operation of resecting a portion of one or more of the ribs, a procedure that has rescued many a sufferer from the grave. It is too early yet to estimate the ultimate results of John B. Murphy's plan of treating tuberculous pulmonary disease by distending the pleural sac with nitrogen and thus compressing the crippled lung for a time and giving it the rest so needed for its restoration; it is a logical procedure, it must be conceded, and one that seems likely to pave the way to a successful surgical treatment of consumption, even if it does not in itself turn out to be adequate to the purpose. Unhappily, cancer of the breast is still one of the great obstacles to long life among women. Surgical operations for its eradication have of late years grown much more thorough than they formerly were, but the mortality is still fearfully high. It may be that in the treatment of malignant disease surgery is destined to give place to some curative rather than mutilating process, something that is to grow out of procedures now applied to "inoperable" cases. William B. Coley's success in a fair proportion of such cases may truly be said to be encouraging, and we have not the slightest doubt that cancer will yet be conquered.

The surgery of the gall-bladder and, indeed, that of the liver itself have met with the most promising successes within the last few years. That of the spleen, its entire removal, is also encouraging. Operations for the radical cure of the various forms of hernia are now of everyday occurrence; they are fraught with little danger, and in a large percentage of cases they give excellent results.

The surgery of the urinary tract has been wonderfully developed during the century. Allarton's median lithotomy and Syme's external urethrotomy were among the earlier advances, with Civiale's lithotrity, to be succeeded by suprapubic cystotomy, Bigelow's litholapaxy—an immense stride—and Bottini's operation for prostatic hypertrophy. Nephrotomy and nephrectomy are to be added, with the various procedures for relief in cases of floating kidney and with ureteral implantation.

Surgical gynæcology is a creation of the century, and it is hardly going too far to say that it has sprung from Marion Sims's brilliant initiative. Sims's early successes in the closure of vesicovaginal fistulæ proved the initial step in a series of operative procedures that have decidedly reduced invalidism among women. Byrne's galvanocautery amputation of the cervix uteri and Freund's operation for the removal of the entire uterus have doubtless saved many lives, and certainly have in numerous instances substituted euthanasia for lingering and hopeless wretchedness. Emmet's uterine trachelorrhaphy and the various improved operations for perineal laceration have proved a boon to countless thousands of women. Lawson Tait's operation for the removal of diseased Fallopian tubes, too, has relieved an amount of suffering that is beyond computation, and is not infrequently a life-saving measure. Ovariotomy stands by itself, technically a gynæcological operation, but really an achievement of general surgery. Originally a product of American ingenuity, devised by McDowell and carried to a high state of perfection by Peaslee and Atlee, it was in the highest degree promoted by Sir Spencer Wells, with whose painstaking estimate of its beneficence in prolonging life we are all familiar.

Almost every operation in surgery has been rendered decidedly safer than it was before by Listerian asepticism, which may take rank side by side with anæsthesia in importance, the two being the chief elements that have conspired to render possible the surgery of the present day. Each of them has undergone elaborate development. In the case of Listerism, some of Lord Lister's early appliances have been found to be unnecessary, and one of them, the carbolic-acid spray, was long ago decided to be injurious, but the modifications that have been found desirable, no matter by whom they have been suggested, detract not at all from the credit to which Lister is entitled. In the case of anæsthesia, ether did not long remain the only agent known to be capable of producing it;

so speedily did Simpson demonstrate the availability of chloroform, and so worded were some of the early accounts of his demonstration, that a large part of the world was for a long time under the impression that Simpson was actually the discoverer of anæsthesia itself. For many years ether and chloroform remained practically the only available anæsthetics, as they are still the ones most generally employed. To prove to the profession the great risk of chloroform anæsthesia as compared with that procured by means of ether was a task that it took many years to accomplish, and quite as long a time was required to do away with the smothering method of administering ether. Most meritorious work has recently been done in bringing general ether anæsthesia to a high degree of efficiency and stripping it of its disagreeable features by means of the preliminary use of nitrous oxide. The professional anæsthetist is almost indispensable for the satisfactory conduct of this elaborate method of inducing insensibility, but that specialist has surely a legitimate place, and he will certainly hold it. The various means of producing local anæsthesia, such as freezing the part, the use of cocaine, and Schleich's infiltration method, are all precious resources and of wide ranges of usefulness, but it is doubtful if general anæsthetization will ever cease to take precedence over them for major operations. Endomeningeal spinal cocainization, while highly creditable to the ingenuity of its inventor, J. Leonard Corning, seems to be unlikely to come into general use, for there are grave objections to it.

In few directions has the advance of our beneficent work been more conspicuous than in the care of the insane. While we fear it cannot yet be said that there are no lunatic asylums in which humane treatment of the inmates is invariable, we may safely affirm that in the great majority of them not only is kindness uniform, but insanity is really treated with a view to its cure. Auxiliary laboratories, notably the institution maintained by the State of New York, seem certain to contribute powerfully to the alleviation and cure of mental disease.

Medicine has borne its full share in the century's mitigation of the horrors of war. Camp sanitation, scientific adjustment of the ration to the work to be performed, supervision of the clothing and bedding, flying ambulances, "first aid" corps, the individual first aid dressing packet, rescue of the wounded under fire, the systematization of field hospitals and general military hospitals, skilled systematic nursing, hospital railway trains, roomy and well-equipped hospital-ships, and salubrious quarters for convalescents are some of the means that the nineteenth century has adopted for ameliorating the lot of the soldier and the sailor—all brought about mainly if not solely by the efforts of medical men. Largely as the result of recent wars, northern nations have been made to feel the importance of tropical diseases in warfare and in commerce, and the medical profession has promptly undertaken the necessary study of tropical medicine, which must henceforth constitute a feature in the school curriculum.

The century has witnessed the entrance of women into the ranks of the medical profession. This has been practically unopposed by medical men, at least in our own country, although it was known that it would play an important part in adding to the constantly growing difficulty, for the majority of physicians, of earning a living. Not only have the men of the profession acquiesced in this new accession of rivals in practice, but they have cheerfully, nay, enthusiastically, done their part in educating women in medicine. Women are now freely admitted to medical meetings, and in the case of many societies to membership, on a full equality with men. We all feel that this throwing open of the doors to women is just, injure our pecuniary prospects how it may. We feel bound to add that the women physicians of the present time are generally recognized as a creditable part of the profession.

In another way women richly deserve mention in this sketch. Much of the success of the medicine and surgery of the closing years of the nineteenth century has undoubtedly been due to the trained nurse. She has been a veritable support, a strong arm to lean upon, in thousands of cases that might else have overwhelmed the physician with anxiety. The lot of man is made tolerable by compensations. If women have seized upon a portion of men's means of livelihood, none the less have women lightened men's burdens and made men more capable of extracting the utmost from that portion of the field still left to them. Physicians will always cherish the memory of Florence Nightingale.

We are not now multiplying medical schools; we no longer hold out allurements to young men who fancy they would like medicine as a vocation. We are striving to improve our schools and to admit to them only such students as are shown to possess already the mental equipment necessary to the adequate study and worthy practice of an arduous profession, one full of anxieties and difficulties, but on the whole, happily, one that is most honorable and beneficent. Our teaching methods and facilities are constantly growing more efficient and our requirements more and more exacting. The time was, and that not very long ago, when a bright lad might pick up without much exertion a smattering of medicine and meet with material success in medical practice, but that was because his rivals were apt to be no better equipped than himself and lacking his brightness. All that has been changed; there is now no royal road to the medical degree, except in a constantly dwindling number of unenlightened localities, and the degree itself must in an increasing number of communities be supplemented by a rigid governmental examination. The fashionable physician of the past—he who traded on his deportment, his sympathetic air, or his assurance—is fast becoming extinct. The medical graduate of the present day is necessarily learned; when to learning he joins wisdom, which no man can teach him, he is sure to succeed in the practice of medicine. Fortunately, however, there is no chance for a learned fool. The advances in education and in the requirements for the license to practise must be set down as among the most positive strides of nineteenth century medicine.

It remains for us to speak of the supreme achievement of the medicine of the nineteenth century—preventive medicine, the ceaseless effort to stamp out disease. What other body of men than the medical profession has ever bent its energies to the task of annihilating its own means of existence? Without disease there is no need of doctors. Disease there will always be, no doubt. It will come in new forms. In the century that we have been reviewing there have come, or been revived, influenza—that protean and hellish disease—diphtheria, epidemic cerebrospinal meningitis, and the Oriental plague. Diphtheria we have virtually conquered; the twentieth century must struggle with the others and with such still newer minions of Death as will come upon mankind during the hundred years that are to succeed the present day. If sanitation had been thrust upon us from without, and we had simply acquiesced—had bowed to the inevitable, so to speak—we could take no particular credit to ourselves, for mere artisans, even the much-abused plumbers, have done that much; but the medical profession has itself been the prime mover in every effort to blot out disease from the face of the earth, and, resting their pretensions on that glorious fact, physicians may confidently trust to the coming historian for that exaltation which shall more than take the place of material reward. Proud as we are, however, of what we have achieved in the nineteenth century, we should be rash in the extreme to attempt to forecast the glory of our successors in the next hundred years.

ACUTE INFLAMMATORY ATROPHY OF BONE.

APPARENTLY new light has been shed on certain cases of temporary bony atrophy by Sudeck (*Archiv für klinische Chirurgie,* lxii, 1; *Fortschritte der Medicin,* November 28th) by means of Röntgen-ray pictures. He finds that inflammation of the joints of the hand exerts an influence on the thickness of the neighboring bones. With remarkable rapidity they become strikingly transparent and the spongy tissue becomes thin, but the former thickness is regained quite as rapidly when the articular disease has run its course. Since the atrophy is only temporary, the bones affected with it need not be removed on account of it in cases of operation for tuberculous disease, for example.

THE WIRING TREATMENT OF FRACTURE OF THE CALCANEUM.

THE practice of wiring together osseous fragments that would otherwise be subjected to an amount of motion highly prejudicial to their union is still the subject of a good deal of thought. Some light may be shed upon it by a case reported by Potherat at a recent meeting of the Paris Society of Surgery (*Gazette hebdomadaire de médecine et de chirurgie,* November 15th). The os calcis had been fractured by muscular action. Potherat cut down on the seat of fracture, brought down the retracted fragment, and inserted two silver wire sutures. He then applied a plaster-of-Paris splint with the foot in an attitude of forced extension, and perfect union ensued.

HOSPITAL SATURDAY AND SUNDAY.

"BLOOD is thicker than water" has more than one meaning, but all its significance rests on the idea of the universal brotherhood of mankind. In few occurrences is this idea so gracefully manifested as when, each year, in two of the great nations of the world Jew and Gentile betake themselves to their respective places of worship and contribute to a common fund for the relief of the sick and wounded. This has been a year of uncommon prosperity, and it is to be expected that the Hospital Saturday and Sunday Fund will be made correspondingly large.

SCARLATINAL OTITIS MEDIA AND THE THROAT.

THE question of whether the middle-ear disease of scarlet fever starts from the throat or in the ear itself is one of considerable importance. Von Gaessler (*Zeitschrift für Ohrenheilkunde,* xxxvii, 2, 3; *Deutsche Medizinal-Zeitung,* November 15th) has made postmortem examinations in twelve cases, and in eleven of them he found nothing abnormal in the cartilaginous Eustachian tube. In a few cases there was extensive inflammatory disease of the tympanum behind an apparently normal drum membrane.

News Items.

Illinois State Sanitarium for Consumptives.—The State board of health of Illinois, in its forthcoming biennial report, will recommend the building of a State sanitarium for consumptives. It will also join with the State board of charities in favoring a provision for the special care of epileptics.

New Jersey Physicians Revolt against Small Fees.—The physicians of Clayton, N. J., have come to a mutual understanding that after January 1st they will make no professional calls within the town limits for less than $1, nor any visits in the outlying districts for less than $1.25. They will also keep a blacklist and refuse to treat those who do not pay their doctor's bills.

Better Sanitary Conditions in Barber Shops.—The Mount Vernon (N. Y.) Board of Health has adopted a new code of rules to compel better sanitary conditions in barber shops. Every barber will be required to wash his razors, combs and brushes after use in an antiseptic preparation, to use a clean towel for each patron, to use only powdered alum to prevent the flow of blood, and to wash his hands after shaving each customer.

New Medical Laws Proposed for Kansas.—The Kansas State board of health has prepared a number of bills for introduction during the winter session of the legislature. One bill provides for the establishment of a State board of medical registration and examination, consisting of seven members. Their duties will be to issue certificates or licenses to persons who desire to practise medicine. They shall be required to pass an examination touching upon their qualifications. The law, however, will not apply to persons who have diplomas from reputable medical colleges or who have practised medicine in the State for twenty years or more. To these, certificates will be issued without examination. The law does not recognize persons who practise Christian Science, faith cures, spiritualism, etc., but licenses osteopaths who have taken a four years' course of instruction and who do not use drugs or perform operations in their practice. Provision is made for the law to take effect in January, 1902, and any person who has not complied with its provisions by that time and attempts to practise medicine without a license will be liable to a fine of from $50 to $200.

To Amend New Jersey's Lunacy Laws.—A conference of delegates representing the different county medical societies of New Jersey, was recently held in New Brunswick for the purpose of recommending amendments to the present lunacy laws of the State. A number of recommendations, which will be submitted to the legislature, were adopted. Dr. Evans, director of the Morris Plains Hospital for the Insane, represented Morris county. Dr. Ward was present from the State hospital above this city. Dr. L. S. Hinckley, of Newark, director of the Essex County Asylum, and Dr. Charles Young, of Newark, represented Essex county. The State board of health was represented by Dr. Mitchell, the secretary. The meeting was called to order by Dr. William M. Moore, of New Brunswick, president of the Middlesex County Society. Dr. Charles Young, of Newark, was made chairman, and Dr. D. C. English, of New Brunswick, secretary. The discussion lasted over four hours, and every clause of the lunacy law was thoroughly considered.

Hospital Changes.—Dr. Cornelius Deweese, for four years pathologist at the Maryland Hospital for the Insane at Catonsville, Md., has sent his resignation to the board of governors. Dr. Deweese will enter the Government Hospital for the Insane at Washington, and take up the work of pathology there.

A Russian Woman Apothecary.—Mme. Lesnievskaja, who has received the degree of Master of Pharmacy, has also secured the necessary authorization from the government to open a pharmacy in Moscow. She is the first woman in Russia to be accorded this privilege. In connection with her establishment there will be a chemical laboratory and a school for women pharmacists.

The Post of School Medical Inspectors in Russia.—Professor Pavlov has been appointed chief inspector of the institutions founded by the Empress Maria, which include a number of the most important schools and colleges for young women in Russia. The staff of medical inspectors for these schools consisted hitherto exclusively of men. The *Archiev Pathologyi* for September, 1900, hopes that women physicians will hereafter be appointed to these positions.

Officers of the Independent Medical College are Convicted.—James and Thomas Armstrong, principal officers of the Metropolitan or Independent Medical College of Chicago, were convicted recently in the United States District Court on three charges of having used the mails to defraud, in connection with one of the most notorious "diploma mills" in the country. The jury decided they were guilty under a statute which permits an extreme penalty of eighteen months in jail and a fine of $1,500 each. The bail of James Armstrong, the principal offender, was raised from $2,000 to $5,000, and in lieu of proper sureties he was taken to the county jail. On recommendation of the government attorney, Judge Kohlsaat allowed Thomas Armstrong to have his freedom on his old bond. John H. Randall, another defendant, who pleaded guilty under the same indictment, is at liberty on $2,000 bail. Sentence will shortly be passed.

The New Medical School in Odessa.—The first semester of the newly established medical school in Odessa opened on September 1st, with a lecture on physics by Professor Schwedoff. Dr. Podwyssotsky, professor of pathology, has been appointed dean, and Dr. Batoujeff, professor of anatomy, is secretary of the new faculty of medicine of the University of Odessa. The following professors of the Faculty of Natural Sciences of the same university have been appointed to teach the scientific subjects in the medical school and have been given the privileges of members of the medical faculty: Professor Schwedoff, Professor Rischavi, Professor Repiachoff, Professor Prendel and Professor Petrenko-Kritchenko. The ceremony of opening the new medical school has been postponed indefinitely, and the professors of clinical subjects will be appointed later.

Small-pox Drives Prisoners from the Workhouse.—A workhouse at Cleveland, O., has been quarantined on account of small-pox. There are 400 prisoners in the institution and one of them has been stricken. Until the quarantine is lifted no prisoners will be accepted. When the "black Maria" arrived at the workhouse with thirteen male prisoners committed to that institution the patrolman was informed by a sanitary officer that there was small-pox in the workhouse and that orders were to the effect that no prisoners were to be admitted until the quarantine was removed. Accordingly the thirteen prisoners were driven back to the central station.

Philadelphia Favors Paying Medical Inspectors of Schools.—The question of granting to medical inspectors of schools remuneration for their services, which have thus far been voluntary, was considered recently by the Committee on Medical Inspection of Schools of the Public Education Association in Philadelphia. The following resolution was passed unanimously:

"*Resolved,* That for purposes of uniform work and for definite and responsible organization, it is desirable that the medical inspectors of schools should be paid. It is the sense of this committee that the work can be done by 200 inspectors, and that each should be paid $500 for eight months' work, September 10 to June 1." The resolution was indorsed by the County Medical Society and the College of Physicians will consider it later.

The Buffalo Academy of Medicine.—At the meeting of the Buffalo Academy of Medicine in the Buffalo Public Library recently, Dr. William Ridgeley Stone, of the City Hospital, New York, read an essay on Cocainization of the Lumbar Puncture, in Labor. Dr. Marcel Hartwig opened the discussion of the paper. Dr. Eugene A. Smith also read a paper on a special topic.

A Gold Medal for Professor Potain.—Dr. Potain will have reached the age limit prescribed by French law for service in the universities at the end of the year 1900. His colleagues have decided to present him with a gold medal on the occasion of his retirement from academic life, and a fund is now collecting for this purpose.

New York State's Death Rate for October.—The monthly bulletin of the State board of health for October shows that there were 9,676 deaths throughout the State, representing an annual death rate per thousand population of 16. Of the total there were 283 deaths from typhoid fever and 1,078 from consumption.

To Instruct Parents Regarding the Health of their Children.—The board of health of Buffalo, N. Y., has made a series of recommendations which include the appointment of a medical supervisor over churches and Sunday-schools, who would instruct parents and children in hygiene in a practical way, such as the inspection of the water supply, sewer connections, the prevention of overcrowding, the guarding against bad sanitation, poor lighting, etc.; the inauguration of preventive measures against disease, examination of the eyes and ears of children, and a general study of the surroundings and habits of the scholars.

Ulster County Medical Society Meeting.—The quarterly meeting of the Ulster County Medical Society was held at Kingston, N. Y., on December 11th, and was followed by a banquet. Papers were read on: Infant Feeding, by Dr. R. Loughran, of the Post-Graduate Hospital, New York City; Medical Jurisprudence, by Hon. John W. Searing, and a Report of Obstetrical Cases, by Dr. E. J. Gallagher.

Pennsylvania wants Recognition in the Hall of Fame.—The fact that few Pennsylvanian notables have been named for a place in the Hall of Fame of the New York University has aroused some indignation in that State. The Rev. Henry C. McCook, of Philadelphia, calls attention to several names that deserve a place there, prominent among them being Benjamin Rush, D. Hayes Agnew, and Samuel D. Gross, the last of whom founded the American Surgical Association, the Philadelphia Academy of Surgery, and the Pathological Society, and was president of the American Medical Association.

Iowa Plans a Consumptives' Home.—The next Legislature in Iowa will most probably be asked to establish an institution in that State for the isolation and treatment of those afflicted with tuberculosis. The Iowa State Board of Health has just issued 10,000 circulars to be distributed all over the State in an endeavor to arouse public sentiment to the necessity of this enterprise. It is stated that nine persons die daily in Iowa from consumption. Dr. Coniff, a member of the State board, says that the board is determined to educate the people up to the danger of permitting consumptives to scatter the deadly germ broadcast.

Small-pox.—From the lumber camps of Michigan come reports that small-pox is epidemic there. Similar reports come from Poplar Bluff, Mo., and at Kansas City extraordinary sessions of the board of health were held to cope with the disease. A number of new cases have developed at Schenectady, N. Y.

The Removal of the President of the State Commission in Lunacy.—Governor Roosevelt has removed from office Dr. Peter M. Wise, of New York, president of the State Commission in Lunacy, after giving him an opportunity to make an explanation of certain statements made by him to the Governor, on December 10th and 11th, in relation to the alleged sale through him of stock in a copper mining company of New Mexico, in which Dr. Wise was pecuniarly interested, to employees of State hospitals for the insane under the control of the State Commissioner in Lunacy; and, secondly, in regard to his part in the construction of an artificial ice plant on the grounds of the Long Island State Hospital at Flatbush. This explanation the Governor considers unsatisfactory. Dr. Wise's term would have expired on December 31st. The Governor states that he will not fill the vacancy, leaving that duty to Mr. Odell when he assumes office in January. The men who were most talked of as Dr. Wise's successor are Dr. S. H. Talcott, of the Homœopathic State Hospital for the Insane, at Middletown; Dr. Charles W. Pilgrim, of the Hudson River State Hospital for the Insane, at Poughkeepsie, and Dr. Wagner, the superintendent of the State Hospital for the Insane, at Binghamton.

Deposed Physician Brings Action Against College.—Dr. Hartigan, head of the medical department of the West Virginia University, has entered at Morgantown, W. Va., suit for $25,000 damages against President J. H. Raymond, of the university. At the meeting of the board of regents Dr. Hartigan was deposed from his position on the recommendation of President Raymond.

A Successor to Dr. Henry D. Noyes.—The death of Dr. Henry D. Noyes, professor of ophthalmology in the Medical School of the New York University, has left a vacancy which has been filled by the appointment of Dr. John E. Weekes, University of Michigan, '81. Dr. Weekes has been a lecturer in the medical school for the last two years, in the same department of which he has been made clinical professor.

The Dunkirk and Fredonia Medical Society, at its annual meeting at Dunkirk, N. Y., elected the following officers: A. W. Dods, M. D., president; N. E. Beardsley, M. D., vice-president; W. H. Vosburg, M. D., secretary and treasurer.

Diphtheria.—Malignant diphtheria has made its appearance near Trenton, N. J. Two deaths are reported. The appearance of several diphtheritic cases at Patchogue, L. I., has resulted in strict quarantine regulations there.

Brooklyn Hospital Alumni Organize.—Ex-members of the interne staff of the Brooklyn Hospital met at that institution recently to organize an alumni association. Twenty-two assembled to the call. The temporary chairman, Dr. A. A. Hussey, outlined the purpose of the meeting, after which the following officers were elected: President, Dr. Arthur R. Paine; vice-president, Dr. Charles G. Molin; secretary and treasurer, Dr. Charles F. Herman. The chair appointed Dr. S. M. Sherwell, Dr. W. H. Bates, Dr. H. E. Fraser, Dr. A. A. Hussey, Dr. N. P. Rathbun and Dr. P. L. Parish to draft the constitution and by-laws, and to select a historian. It was decided to hold a banquet on January 17, 1901.

Presbyterian Hospital Anniversary.—The thirty-second anniversary of the foundation of the Presbyterian Hospital in this city was celebrated recently. John S. Kennedy, president of the board of directors, occupied the chair. Four members of the choir of the Fifth Avenue Presbyterian Church sang an anthem, after which Dr. George T. Purves read the Scripture lesson and delivered an address.

Grippe in Boston.—A severe epidemic of the grippe is reported from Boston and the hospitals are filled to the doors. It was ten years ago that the plague made its appearance, and since then it has had an intermittent appearance.

The Annual Report of the New York Post-graduate Hospital.—The sixteenth annual report of the New York Post-graduate Hospital for the year ended October 31st has made its appearance. The directors call attention to the great need of an indoor hospital. An ambulance is also needed, and, while a sum is on hand for providing it, more money is required to make up the necessary amount.

The New York Orthopædic Hospital.—Bishop Potter and Governor Roosevelt will make addresses at the annual meeting of the New York Orthopædic Hospital on the afternoon of January 4th, and the institution will be open for inspection on that afternoon from three until six o'clock.

Officers of the New York Academy of Medicine.—At the meeting held on December 20th the following officers were elected by the New York Academy of Medicine: President, Dr. Robert F. Weir; vice-president, Dr. Charles L. Dana; recording secretary, Dr. John H. Huddleston; trustee, Dr. Alexander A. Smith; corresponding secretary, Dr. Louis F. Bishop; member of the committee on admissions, Dr. John V. D. Young; member of the committee on library, Dr. Charles L. Gibson.

Medical School Inspection for Minneapolis.—The scheme to have daily medical examinations of the pupils in the public schools of Minneapolis will doubtless be put into operation by January 1st. The board of medical inspectors, consisting of one physician for each of the four high schools, met recently and formulated a plan which they will present to the board of education.

Detroit Medical Society's Centenary.—At the centenary meeting of the Detroit Medical Society, recently held, the following programme was presented, followed by an informal reception and lunch: The Old Doctors of Detroit and Michigan, by Nathaniel W. Webber, M. D.; A Half Century in Medical Jurisprudence, by Frank T. Lodge; The Surgical Progress of the Nineteenth Century, by Henry O. Walker, M. D.; The Medical Progress of the Nineteenth Century, by Victor C. Vaughan, M. D., of Ann Arbor.

Congressman Wise Dead.—Dr. Richard A. Wise, who has represented the Second Virginia District in Congress for the past two terms, died at his home in Williamsburg on December 21st, at the age of fifty-seven years. Dr. Wise was a son of General Henry A. Wise and a brother of John S. Wise, now of New York City. He, like his brother John S. Wise, was a pronounced Republican and was twice seated in Congress on a contested election. He was again a candidate for Congress at the last election, and, while his opponent was declared elected, he had given notice that he proposed to contest the election at the bar of the House.

Resignation of Dr. Anita Newcomb McGee.—Dr. Anita Newcomb McGee, the only woman holding a commission in the army, has tendered her resignation, to take effect on the 31st instant. Mrs. Dita H. Kenney, at present head nurse at the United States general hospital at Fort Bayard, N. M., has been designated to take her place. Mrs. McGee holds the rank of first lieutenant and is an acting assistant surgeon, with the right to wear the insignia of that grade and corps. In accepting the resignation, Surgeon-General Sternberg expressed high appreciation of the valuable services rendered by Dr. McGee in selecting trained female nurses for duty in the field and general hospitals and in organizing the "Army Nurse Corps."

Vindication for an Accused Physican.—A full written retraction, with ample apologies, was made by Attorney A. J. Speckert, who recently filed a $45,000 damage suit for Ida Mellinger against Dr. William Cheatham, a prominent specialist of Louisville, affirming that Dr. Cheatham had imposed upon the girl while treating her professionally. Dr. Cheatham stands completely vindicated.

Marine-Hospital Service. — *Official List of the Changes of Stations and Duties of Commissioned and Non-commissioned Officers of the United States Marine-Hospital Service for the Seven Days ending December 20, 1900:*

Carrington, P. M., Surgeon. Granted leave of absence for thirty days on account of sickness. Relieved from duty at Washington and directed to proceed to Fort Stanton, N. M., and assume command of the service, relieving Passed Assistant Surgeon J. O. Cobb.

Cobb, J. O., Passed Assistant Surgeon. Relieved from command of service at Fort Stanton, N. M., and directed to report to the medical officer in command for duty.

Korn, W. A., Assistant Surgeon. Granted leave of absence for seven days from December 24th.

McMullen, John, Assistant Surgeon. Relieved from duty at Tortugas Quarantine and directed to proceed to Savannah Quarantine Station for temporary duty.

Olsen, E. T., Junior Hospital Steward. Granted leave of absence for ten days from December 22d.

Purviance, George, Surgeon. To report at Washington for temporary duty.

Rosenau, M. J., Passed Assistant Surgeon. Upon completion of duty at Paris, France, to rejoin station as director of the Hygienic Laboratory, Washington.

Sawtelle, H. W., Surgeon. Granted leave of absence for thirty days from January 20, 1901.

White, J. H., Surgeon. Bureau letter of October 11, 1900, granting Surgeon White leave of absence for thirty days, amended so that said leave shall be for twelve days only.

Appointment.

Fraser, A. C., of Wisconsin, appointed acting assistant surgeon for duty at the port of Manitowoc, Wisconsin.

Marine-Hospital Service Health Reports.—The following cases of small-pox, yellow fever, cholera, and plague, have been reported to the surgeon-general during the week ending December 21, 1900:

Small-pox—United States.

Washington, District of Columbia	Dec. 15	5 cases.	
Chicago, Illinois	Dec. 8-15	2 cases.	
Wichita, Kansas	Dec. 8-15	11 cases.	
Lexington, Kentucky	Dec. 8-15	2 cases.	
Detroit, Michigan	Dec. 8-15	2 cases.	
Minneapolis, Minnesota	Dec. 8-15	7 cases.	
Omaha, Nebraska	Dec. 1-8	3 cases.	
Manchester, New Hampshire	Dec. 8-15	22 cases.	
Jersey City, New Jersey	Dec. 8-16	1 case.	
New York, New York	Dec. 15	15 cases.	
Ashtabula, Ohio	Dec. 8-15	2 cases.	
Cleveland, Ohio	Dec. 8-15	37 cases.	
Portsmouth, Ohio	Dec. 8-15	2 cases.	
Erie, Pennsylvania	Dec. 15	5 cases.	
Greenville, South Carolina	Dec. 8-15	2 cases.	
Memphis, Tennessee	Dec. 8-15	1 case.	
Houston, Texas	Dec. 15	18 cases.	
Salt Lake City, Utah	Dec. 8-15	40 cases.	1 death.
Wheeling, West Virginia	Dec. 15	8 cases.	
Milwaukee, Wisconsin	Dec. 8-15	1 case.	

Small-pox—Foreign.

Prague, Bohemia	Nov. 24-Dec. 1	46 cases.	1 death.
Pernambuco, Brazil	Nov. 15		16 deaths.
Rio de Janeiro, Brazil	Oct. 16-31		43 deaths.
Alexandria, Egypt	Nov. 27	3 cases.	1 death.
London, England	Nov. 24-Dec. 1	14 cases.	1 death.
Sunderland, England	Dec. 1	1 case.	
Paris, France	Dec. 1		17 deaths.
Gibraltar	Nov. 25	1 case.	
Athens, Greece	Dec. 1	2 cases.	
Calcutta, India	Nov. 3-15		8 deaths.
Mexico, Mexico	Dec. 2	1 case.	
Tuxpan, Mexico	Dec. 3-10		3 deaths.
Moscow, Russia	Nov. 17-24	3 cases.	1 death.
Odessa, Russia	Nov. 24	62 cases.	15 deaths.
St. Petersburg, Russia	Nov. 24	5 cases.	2 deaths.
Warsaw, Russia	Nov. 24		25 deaths.
Glasgow, Scotland	Dec. 7	45 cases.	1 death.
Corunna, Spain	Nov. 3		2 deaths.
Valencia, Spain	Dec. 2	1 case.	

Yellow Fever.

Rio de Janeiro, Brazil	Oct. 16-31		2 deaths.
Vera Cruz, Mexico	Dec. 8		2 deaths.
Yucatan, Mexico	Nov. 30		1 death.

Cholera.

Bombay, India	Nov. 13-20		7 deaths.
Calcutta, India	Nov. 3-15		35 deaths.
Madras, India	Nov. 10-16	2 cases.	1 death.
Singapore, Straits Settlements	Nov. 3		6 deaths.

Plague—Foreign and Insular.

Rio de Janeiro, Brazil	Oct. 16-31		9 deaths.
Bombay, India	Nov. 13-20		125 deaths.
Madras, India	Nov. 10-16		1 death.
Manila, Philippine Islands	Nov. 3	3 cases.	1 death.

Naval Intelligence.—*Official List of Changes in the Medical Corps of the United States Navy for the Week ending December 22, 1900:*

Ledbetter, R. E., Assistant Surgeon. Detached from the *Constellation* and ordered to the *Monongahela.*

Murphy, J. A., Assistant Surgeon. Detached from the *Solace* and ordered to the *Don Juan de Austria.*

Stepp, Jacob, Assistant Surgeon. Detached from the *Solace* and ordered to the Cavite Naval Station.

Stone, M. V., Assistant Surgeon. Detached from the *Yosemite* and ordered to the *Isla de Luzon.*

Thompson, J. C., Assistant Surgeon. Detached from the Naval Hospital, Cavite, Philippine Islands, and ordered to the *Solace.*

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Births, Marriages and Deaths.

Born.

Coughlin.—In Brooklyn, on Tuesday, December 18th, to Dr. and Mrs. Robert E. Coughlin, a son.

Married.

Carr—Hollister.—In New York, on Thursday, December 20th, Dr. Joseph William Carr, of the University of West Virginia, and Miss Florence A. Hollister.

Haynes—Brown.—In Washington, on Saturday, December 15th, Dr. Henry Malcolm Haynes, of Austin, Texas, and Miss Carrie Brown.

Kyle—Smith.—In Philadelphia, on Wednesday, December 19th, Dr. D. Braden Kyle and Miss Jeannette E. Smith.

Died.

Elliott.—In Manchester, New Hampshire, on Monday, December 17th, Dr. George H. Elliott, of New York, in the fifty-sixth year of his age.

Fellows.—In Chicago, on Sunday, December 16th. Dr. Henry Barton Fellows, in the sixty-fourth year of his age.

Fruitnight.—In New York, on Wednesday, December 19th, Dr. J. Henry Fruitnight, aged forty-nine years.

Ingals.—In Chicago, on Tuesday, December 18th, Dr. Ephraim Ingals, in the seventy-eighth year of his age.

Palmer.—In Cincinnati, on Tuesday, December 11th, Dr. Elliot Barton Palmer, in the thirtieth year of his age.

Pramann.—In New York, on Tuesday, December 11th, Dr. Adolf Pramann.

Taft.—In Mount Vernon, New York, on Tuesday, December 18th, Dr. Charles Sabin Taft, formerly of the United States Army, aged sixty-five years.

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Pith of Current Literature.

Journal of the American Medical Association, December 22, 1900.

Treatment of Hernia in Children. By Dr. A. J. Ochsner.—The development of herniæ in children is favored by: (*a*) Faulty development of the abdominal wall; (*b*) insufficient strength in the tissues involved in closing the umbilical, inguinal, or femoral openings; (*c*) abnormal intra-abdominal pressure; (*d*) unclosed condition of the tunica vaginalis. The first two causes are likely to be inherited. The abnormal intra-abdominal pressure is due to gaseous distention resulting from improper feeding; to the exertion necessary to accomplish defæcation in case of chronic constipation; to exertion required to evacuate the bladder on account of obstruction due to phimosis; to severe, long-continued coughs.

A large majority of all cases of hernia in children will heal spontaneously if the increased intra-abdominal pressure is relieved, the hernial sac being kept empty. This can be accomplished by means of trusses, or, much more rapidly, in inguinal and femoral hernia, by placing the child in bed with the foot of the bed elevated, the time required usually not exceeding six weeks. Children with a tendency to the formation of hernia should be guarded against developing coughs. Their diet should be given at regular times and chosen with a view to avoid gaseous distention. Constipation should be entirely prevented, and phimosis should be relieved if present. Badly nourished and badly cared-for children of the poor should be treated in hospitals. Operation is indicated: (*a*) In strangulated hernia; (*b*) in irreducible hernia due to adhesions; (*c*) in case the opening is unusually large in a free hernia, especially if the condition is hereditary and the hernia cannot be retained by means of a truss; (*d*) in reducible hydrocele. Except in class *c*, the operation should consist simply in dissecting out the sac, ligating it within the abdominal cavity, cutting away the sac, and permitting the stump to retract within the abdominal cavity, and then simply closing the wound in the skin. The recumbent position with the foot of the bed elevated, is of very great importance in the operative, as well as in the non-operative, treatment of hernia in children. If the child cannot be kept in this position sufficiently long, a well-fitting truss should be worn night and day until there has been no protrusion for at least six months; at the same time the necessary precautions should be taken constantly to guard against intra-abdominal pressure from any cause.

Improved Technique for the Cure of Ventral Hernia. By Dr. M. M. Johnson.—An elliptical incision is made a little within the border of the opening in the abdominal wall. The sheath of the rectus muscle is then exposed, and a similar dissection is made an inch or more over the external oblique. The edges of the opening are trimmed and a No. 25 silver wire suture is inserted at the upper angle of the opening, by lifting the abdominal wall and passing a needle through the peritonæum, rectus muscle and skin, about one inch from the free border of the opening. Silver-wire sutures are inserted at intervals of one inch for the entire length of the incision. All the subcutaneous tissues are then united by a continuous kangaroo-tendon suture, and the skin is closed by a continuous suture of the same material. The ends of the wire are drawn sufficiently tight to relieve the tension on the kangaroo-tendon stitches, and are then wound around a pencil, or ivory, on either side, after the fashion of the old "quill suture." Half of the wires are removed in ten, and the remainder in fifteen days.

The Essential Factors for the Cure of Hernia in the Male. By Dr. Henry O. Marcy.—The anatomical and physiological foundations upon which it is alone possible to reconstruct the parts involved in inguinal hernia in the male may be epitomized essentially as follows: (1) Free dissection of the parts under aseptic conditions; (2) the proper disposition of the hernial contents; (3) suture and resection of the sac; (4) the reconstruction of the inguinal canal to its normal obliquity; (5) the buried animal suture, preferably tendon, is absolutely essential in order to effect this; (6) the closure of the wound without drainage; (7) protecting the wound with iodoform-collodion seal, and the application of no other dressing.

Hydrencephalocele. By Dr. Carl Beck.—The prognosis of hydrencephalocele has become more promising under the auspices of asepsis, as well as under those of the Röntgen rays. In illustration the author gives two cases.

Symmetrical Development, or, Does Our Present School System Develop the Highest Powers of the Pupil? By Dr. E. Stuver.—The physical, intellectual, and moral powers of the pupils should be developed at the same time. The instruction should be graduated to the needs and to the comprehension of the child. Teachers should have a more thorough and comprehensive knowledge of the laws of mental development; they should be better educated, better trained for their work, and *better paid.* Pupils should be trained in systematic and logical analysis. Formal and abstruse work should be greatly curtailed, and natural objects should be studied in their natural surroundings. More time and attention should be given to manual training. Harsh and dangerous punishment should be abolished.

The Control and Prevention of Ear Diseases among School Children. By Dr. Louis J. Lautenbach.—The author approves of Dr. Allport's suggestion to have an oculist and aurist appointed by the board of education, who should superintend the tests of the special senses, collect data, make reports, etc. Examinations should be made by principals and teachers; those pupils found defective, with their names, condition, etc., should be enrolled on statistical blanks, on which in due time the result of treatment on special organs and general health and conduct should be noted. These blanks should be handed to the superintendent and to the board oculist and aurist, who should file them and report on their findings to the board of education.

The Antecedents of Organic Heart Disease in Children. By Dr. Frederick A. Packard.—We must attribute many of our inflammatory lesions of the endocardium to the slighter infections, such as coryza, various skin lesions, affections of the mucous membranes of the throat and nose, and the infections of the gastro-intestinal tract. The careful examination of the heart is just as necessary in these lighter infections as in the case of the more severe infections, such as rheumatism and scarlet fever.

Arthritis Deformans. Its Clinical Features, Differential Diagnosis and Pathogenesis. By Dr. Aloysius O. J. Kelly.—That this is in great part an infectious disease, is indicated particularly in all acute cases. In the chronic cases, however, we have to deal with an infectious trophoneurosis.

Separation of the Recti Abdominis Muscles and Stretching of the Linea Alba. Unnoticed Factors in the Production of Abdominal and Pelvic Disturbances in Women. By Dr. J. Clarence Webster.

Medical Record, December 22, 1900.

On a Case which Illustrated Conservatism in Surgery—The Liability of an Ancient Cicatrix to Cancerous Degeneration—A New Method of Amputation at the Knee when the Arterial Circulation of that Region is Impaired. [The Abstract of a Lecture Delivered in Bellevue Hospital, January, 1900.] By Dr. Stephen Smith.—Fifty years ago, the patient, then a young man, developed either an acute periosteitis or an osteomyelitis of the right tibia; pus was flowing from numerous openings; he was feeble; and irregular chills and night sweats indicated that he was suffering from septicæmia, if not pyæmia. The extensive suppuration already present would have been greatly increased by the large wound necessary to remove the dead bone, and as, in the opinion of the consultants, the patient could not survive any additional exhaustion, amputation was strongly urged, but was as strenuously refused. The author's conservative operation, however, gave the man health and a good limb, and the case is reported to illustrate the progress of the past fifty years. In our time the question of the dangers of suppuration would not have been mentioned in the consultation. As to the liability of an ancient cicatrix to cancerous degeneration, this occurrence was illustrated in this case forty years after the cicatrix had formed. Such an occurrence is by no means unusual, and is quite in accord with the known histology of this disease. The new method of amputation proposed by the author, under the circumstance noted in the title, is to make a straight incision, commencing two inches above the upper border of the patella, downward over the centre of that bone to the tuberosity of the tibia; from the lower extremity of this incision two curved incisions are made, the convexity of each being downward, one toward the external border, and the other toward the internal border, of the leg; these two incisions are then joined posteriorly by a straight incision across the upper border of the calf. The two flaps thus formed are dissected from the tibia and fibula; the patella is removed, and the tibia disarticulated. Upon referring to the distribution of the arteries at the knee, the advantages of this operation will be recognized.

The Neurone Doctrine: Its Present Status. By Dr. Charles Lewis Allen.—The application of the Golgi method shows that each nerve cell [and its processes] is developed from a primitive cell, the neuroblast; hence it forms an embryological unit. Moreover, to all appearance, the separation of these units one from another always remains complete. The neurone conception appears logically to follow. Even if the views of Apáthy are confirmed, and we have to admit a continuity of the neurofibrils, it does not seem to follow, necessarily, that we must abandon our idea of the neurone as a functional unit. Its embryological unity is not affected. It may be necessary to modify our views with regard to it, but our conception of the existence of the neurone, as a means of explaining certain facts, we are as yet hardly called upon to give up. Preserving an entirely impartial attitude, we can only await the results of further investigations.

A Few Remarks on the Use of Medullary Narcosis in Obstetrical Cases. By Dr. Hugo Ehrenfest.—It seems to the author more than doubtful whether we are justified in recommending the Corning procedure as a means of rendering normal labor painless or as a substitute for light chloroform narcosis, which is always sufficient for the usual obstetrical operations.

Perforation of a Typhoid Ulcer without Fæcal Extravasation; Operation Four Hours after the First Symptom; Recovery. By Dr. E. G. Cutler and Dr. John W. Elliot.—In the case of appendicular inflammation, we have learned that the peritonæum is often infected before the appendix is perforated, and we now know that the same thing is true in the case of a typhoid ulcer. As the mortality of these operations will depend largely on the extent of the septic peritonitis present, if we could more often make sure that the ulcer was about to perforate or was slowly infecting the peritonæum, our results would be much improved. The authors' case is one in which the early symptoms were sufficiently well marked to induce the physician in charge to operate before an opening in the intestine had actually occurred. When the abdomen was opened, on the side opposite the mesentery an ulceration, about the size of a quarter of a dollar, was seen, the centre of which was just ready to slough out. Lembert silk sutures were so placed as to fold the gut longitudinally over the perforation, a second layer of sutures being placed to cover in the first series. The abdomen was very carefully wiped out with gauze sponges; there was no irrigation. The wound was closed, leaving a small strip of gauze leading down to the line of sutures. The recovery was uneventful.

On the Treatment of Laryngeal Tuberculosis. By Dr. Robert D. Cohn.—In the first stage of this affection, where the larynx is healthy, with the exception of a circumscript infiltration or ulceration, we can hope for a permanent cure by curettage; if infiltration is present, by cauterization with lactic acid, in case an ulcer be present. In the second stage, the larynx presents extensive infiltrations or ulcerations, and the most we can do is to treat it symptomatically—a morphine powder before each meal, or an application of cocaine to the pharynx. The general treatment corresponds closely to that in pulmonary tuberculosis.

Local Anæsthesia in the Radical Operation for Inguinal Hernia. By Dr. Leo B. Meyer.—The advantages are: (1) Absence of the dangers of general anæsthesia, both immediate and remote; (2) absence of the unpleasant sequelæ of anæsthesia; (3) the aid that the patient can give to the operator. The excruciating pain and the condition of neurasthenia in which the operation may leave the patient seem to contraindicate it, and the author would only recommend the method in those cases in which the administration of a general anæsthetic is dangerous.

Report of a Case of Fractured Liver. By Dr. Seelye W. Little.

Fracture of the Clavicle, Resulting in Rupture of the Suprascapular Artery [?] By Dr. H. T. Miller.

An Unusual Case of Nose-bleed. By Dr. G. W. Squires.

Dislocation of the Crystalline Lens in Immature Cataract. By Dr. Norburne B. Jenkins.

An Epidemic of Typhoid Fever. By Dr. Benjamin K. Hays.

The Removal of Thirty-five Screw-worms from the Nose. By Dr. Hal Foster.

Medical News, December 22, 1900.

A Rapid and Simple Operation for Gall-stones Found by Exploring the Abdomen in the Course of a Lower Abdominal Operation. By Dr. Howard A. Kelly. —The hand is introduced into the abdomen, hugging the abdominal wall, conducted over the omentum and the colon as far as the liver, where the gall-bladder is easily discovered in its notch on the right, as a somewhat tense or flaccid sac filling the fissure and projecting out a little beyond the hepatic border. If a stone is present, empty the gall-bladder by compressing it. Then lift the stone firmly against the abdominal wall until a distinct eminence appears on the skin surface just below the margin of the ribs. Care must be taken to allow nothing to intervene between the bladder and the abdominal wall. Through the abdominal parietes over the eminence, directly upon the stone, cutting straight through layer by layer in a vertical direction, make an incision four or five centimetres in length. A little nick is made in the white peritonæum and the two edges are caught with mosquito forceps; as the peritoneal incision is made a little larger, the gall-bladder appears and is opened, its edges are caught, and the contents are evacuated. The edges of the gall-bladder are then united by a fine silk suture beginning at one end of the incision and continuing to the other, embracing all the coats but the mucosa. The same suture is then continued back to the starting point as a quilted suture, burying the first layer, when the ends are tied together. If the gall-bladder is normal, drop it without a drain; if it is diseased, insert a small drain provisionally. The author offers no apology for removing these foreign bodies by an operation so simple and so safe when the abdomen is once opened for some other more serious cause.

Some Notes on the Treatment of Rheumatism. By Dr. Alfred Stengel.—Acute articular rheumatism is in all probability an infectious disease. A peculiar bacillus has been isolated in some cases, and has been regarded as a specific organism by some investigators. If the salicylic-acid preparations are not specific, they at least relieve pain and suffering in a majority of cases, and thereby benefit the patient's general condition. The author has found large doses more satisfactory than small doses spread over a longer time. If salicylic acid is likely to prove useful, it will do so in a comparatively short time. The simultaneous or separate use of salicylate of methyl, applied to the skin in the form of a ten- or twenty-per-cent. ointment and covered with lint and oiled silk, is extremely satisfactory. Recently the author has practised plaster fixation in cases of ordinary rheumatism affecting many joints. The plaster cast almost invariably relieved pain by reducing the muscular spasm and securing immobility, and its application is generally followed by rapid subsidence of the local signs of inflammation. An antistaphylococcus serum might be useful if staphylococci play the part in ætiology that many believe. So far as the author's trials with antistreptococcus serum have gone, there has been every encouragement to continue the treatment in suitable cases.

Report of Two Cases of Sporadic, or Family, Trichinosis, with Remarks on the Importance of Eosinophilia in the Peripheral Circulation as an Aid to Diagnosis. By Dr. Hermon C. Gordinier.—There is a marked increase in the percentage of eosinophilous cells in the blood in trichinosis, and in this disease such increase may be used as a diagnostic sign. This disease in its sporadic form is more common than has hitherto been supposed, and a systematic examination of the blood should be undertaken when there are indefinite intestinal, muscular, or articular symptoms, in the hope that in some at least of the hitherto doubtful cases a diagnosis may be reached.

The Surgery of the Gasserian Ganglion. By Dr. Wallace Neff.—Trigeminal neuralgia is an ascending neuralgia peripheral in origin. The second and third branches are the ones most likely to be involved. If the disease persists, and other means are of no avail, surgical intervention is indicated. If only one branch is involved, remove as much as possible of the affected branch. If more than one branch is involved, and the disease is persistent, extirpate the ganglion. The temporal route should be followed, Cushing's modification being the most rational procedure. The present mortality is about ten per cent. Pain will not recur with its original severity in more than one or two per cent. of the cases, or in any degree in more than four or five per cent., and is invariably due to incompleteness of the operation.

The Treatment of Bronchitis in Infants and Young Children. By Dr. Samuel S. Adams.—Prophylaxis is important. Proper clothing and a daily bath (80° to 90° F.) should be advised. Improvement has been marked as the result of keeping the child out of doors most of the day. Hot footbaths, heavy purging, and profuse sweating are seldom of use and may prove dangerous. Expectorants are not well borne, opiates should be withheld as long as possible, and emetics are seldom indicated in infants. Cardiac stimulants are required in most severe cases. Severe attacks of dyspnœa and feeble respiration must be promptly met. The passive pulmonary congestion and the overfilled right cavities of the heart must be relieved. The general hot bath (110° to 120° F.) is useful. Mustard may be added to the water.

Fatal Angina Pectoris, without Lesions of the Coronary Arteries, in a Young Man. By Dr. T. E. Bullard. **With Description of the Heart, and Remarks upon the Case.** By Dr. William Osler.

Boston Medical and Surgical Journal, December 20, 1900.

Remarks upon Questions Arising during the Removal of Fibroids, with Especial Reference to the Technique of the Operation. By Dr. Maurice H. Richardson.—The operation of hysterectomy is one of the most gratifying and satisfactory in surgery, and when every step is taken in full recognition of the anatomical structures involved no harm can be done. When carried out in darkness, with blind grasping and cutting, no operation is so likely to lead to costly and irreparable blunders. A hysterectomy performed with the sigmoid flexure, bladder, rectum, ureters, arteries, and veins conspicuously shown in their relation to the uterus, is an operation followed by no harassing fears that the ureters may have been tied or cut, that fæces may be escaping into the abdominal cavity, or that the bladder may have been included in a ligature or suture. On the contrary, the surgeon feels that the patient will run only the risks incident to the removal of the uterus itself, and that her chances of recovery are at least ninety-five per cent.

The Value of the Hot-water Immersion Bath in the Treatment of Threatening Puerperal Eclampsia. By Dr. Charles M. Green.—Not only does the hot-water immersion bath produce profuse diaphoresis and reduce blood tension, but it acts, as is well known, as a marked sedative to the nervous system. This bath is easily administered to a conscious patient. The water should be as hot as can be borne, and the patient should remain in it until profuse perspiration of the face shows that the sweat glands are in full activity. If the heart's action is at all weak, it is wise to administer brandy before the immersion. When free perspiration has been induced, the patient should be rolled in a blanket, placed in a warm bed, and covered with several blankets and perhaps a rubber sheet. There should be an ample ingestion of liquids. In the comatose patient in actual eclampsia normal salt solution, by hypodermic or rectal injection or intravenous infusion, meets the indication. Unless the termination of pregnancy seems indicated, or at least warranted, the hot-water bath should not be used, as it is a powerful agent in the induction of labor. In this connection the inhibitory action of chloral cannot be depended upon. Illustrative cases are given.

A Plea for Larger Doses of Antitoxine in the Treatment of Diphtheria. By Dr. John H. McCollom.—The author points out that previous to the introduction of antitoxine in Boston, in 1895, the mortality from diphtheria was very high, whereas it has been very materially reduced since that time. Moreover, since larger doses of antitoxine have been administered the death rate has been still further reduced, and this reduction has occurred in the cases of apparently moribund patients. No injurious effect has followed the use of the serum. To arrive at the most satisfactory results in the treatment of diphtheria, antitoxine should be given at the earliest possible moment in the course of the disease.

Notes from the Neurological Department of the Massachusetts General Hospital. IV. Case of Myasthenia Gravis Pseudoparalytica. By Dr. W. E. Paul.

Pædiatrics, December 1, 1900.

The Treatment of Scarlatinal Nephritis. By Dr. Robert Coleman Kemp.—This is the concluding instalment of the author's valuable paper on this subject. Regarding hypodermoclysis, the average quantity of normal saline solution used should be from one to two ounces in a child, and from two to four ounces in an adult; occasionally from six to eight ounces in the latter. The indications are the same as for enteroclysis, oliguria, dropsy, coma, convulsions, or suppression of urine. The lateral lumbar region is convenient. Hypodermoclysis should not be given directly into œdematous tissue. Occasionally, after hypodermoclysis there is a chilly feeling, a temporary rise of temperature which is followed by a fall of temperature and profuse diuresis. It has no dangerous significance and is merely the reaction following the injection.

Infusion can be employed either by itself or following a previous venesection; the temperature of the saline solution should be 118° to 120° F. In uræmic convulsions, venesection followed by infusion is often indicated, also in coma in uræmic poisoning, and in severe pulmonary œdema or general anasarca. In the application of counterirritation to the kidneys, the partially filled hot-water bag is excellent. The carbonic-acid bath is a valuable agent for the treatment of renal conditions. Treatment by serum injection (scarlatinal) is adapted to the kidney complication. As to the formula: To 100 or 150 cubic centimetres of blood serum an equal quantity of normal saline solution is added. Then add one per cent. of chloroform (shake well) and let this stand for twenty-four hours; it should then be carefully filtered. From twenty to forty cubic centimetres are injected into the patient. Some favorable results have followed this method of treatment, and it is worthy of a further trial.

Care exercised from the incipiency of scarlatina will lessen the chances of a scarlatinal nephritis. There should be a restriction to a fluid diet (milk or derivatives), plenty of water, attention to the skin, and bowels, and rest in bed, even in the mildest cases, should be observed.

A Death from Nitrous Oxide Gas Anæsthesia. By Dr. Thomas C. Evans.

Lancet, December 15, 1900.

Prognosis and Treatment in Pulmonary Tuberculosis. By Dr. R. Maguire (Third Harveian Lecture).—In the rational treatment of pulmonary tuberculosis we must consider (*a*) how we can increase the resistance of the tissues (normally present) to the influence of the *Bacillus tuberculosis* and its congeners; (*b*) how we can hinder the action of the bacillus by destroying its congeners, the staphylococcus pyogenes and the pneumococcus; (*c*) how we can hinder the action of the bacillus by interfering somewhat with its own vitality; and, finally, how we can kill the bacillus *in situ.*

Increased resistance on the part of the tissues can be obtained by the open-air treatment, by over-feeding, and by the use of various drugs. But these methods of treatment can have only indirect, secondary effects upon the tubercle bacillus. Dr. Maguire has been working at a new method of treatment, which he thinks will fulfil the indications mentioned under the sections *b, c,* and *d.* He styles it asepsis of the lung, and it is based upon the introduction into the venous circulation of an antiseptic in sufficient quantity to flush out the lung for an appreciable time. After experimenting with nuclein, taka-diastase, and cyanide of mercury, he obtained the best results with a solution of formic aldehyde in normal salt solution, which latter prevents destruction of the red corpuscles of the blood. The maximum strength of solution to be employed must not exceed 1 in 2,000, and the maximum injection must not be more than 50 cubic centimetres for an adult. The needle through which the solution is to be introduced is plunged into one of the large veins on the front of the elbow, the arm having first been ligatured higher up. The solution is contained in an upright, graduated burette, which is connected with the needle by a rubber tube and a stopcock. After inserting the needle and removing the ligature from the arm, the solution is forced in by hydrostatic pressure, a sufficient amount of which may be obtained by raising the burette. The injection causes a curious cramp-like pain in the arm, and after 50 cubic centimetres have been injected, faintness is apt to ensue. The injection of 50 cubic centimetres of a 1 to 2,000 solution of formic aldehyde means that for at least fifty heart beats the lung is sluiced out with a solution of formic aldehyde of a strength of 1 in 200,000 or more. Dr. Maguire has tested the effects of these injections upon himself. When 100 cubic centimetres of the solution was injected albumin appeared in the urine; at another time the injection of 263 cubic centimetres caused hæmaturia and catarrh of nearly all the mucous membranes.

Cough is unrelieved by this mode of treatment; indeed, it is often temporarily increased. Improvement may only appear after treatment has been suspended for a few days. Dr. Maguire has treated fifty cases of pulmonary tuberculosis in this manner, and almost every case has shown some improvement, this being very marked in some. The physical signs have diminished, the appetite and general condition have improved, the sputum has become more frothy and less purulent, and in some cases the tubercle bacilli have already disappeared. The treatment should be intermitted for a few days every now and then to observe its effect. In cases of bronchiectasis, also, this method of treatment seems to have a most beneficial effect.

Dietetic Problems. By Dr. G. V. Moore. (An abstract of the Purvis Oration on this subject.)—The author discusses the relations between the dietary of the present day and the prevalence of certain diseases, and calls attention to the pernicious habit which has grown up, of putting chemicals into food, especially into that of children. Wheat is best when fresh and most nourishing when raw; sun-dried meat, such as biltong, pemmican or charqui, is noted for its nourishing qualities. We look too much to chemistry as regards our food, and consider the amounts of carbohydrate and proteids present as if they were all-important. It is what we digest that does good, and digestion of food depends largely upon its savoriness and stimulation of the glands of the palate.

The Condition Three Years after Operation of Fifty Successful Consecutive Ovariotomies. By J. D. Malcolm, M. B.—Of 50 successful ovariotomies performed by the author three years or more previously, 32 patients were found in really good health, 7 had little to complain of, 3 were in an unsatisfactory condition and 3 had died. Of the fatal cases, one patient died of bronchitis two years after operation, and the two others had recurrences of malignant disease. The author also reports some cases that were refused operation, and a series of fatal cases not hitherto published, of ovariotomy and of operations undertaken when ovarian tumors were supposed to exist.

The study of these and other cases has strongly impressed the author with the importance of an early recognition and removal of ovarian neoplasms. When a tumor is buried deeply in the broad ligament at the beginning of its growth, it is only by the merest chance that its removal will become more easy as time passes. In every case, delay in operating exposes the patient to the onset of complications which may cause great difficulty and great danger when the abdomen is opened or before an operation is arranged for. When inflammatory conditions are set up around an ovarian growth, the risk of very much greater than it is when there has been no introuble after complete recovery from the operation is flammatory disturbance. Yet when an operation has been too long postponed, its performance may greatly hasten the fatal issue. An ovarian tumor is sure to give trouble sooner or later, and it should therefore be removed as soon as diagnosticated if such treatment seems at all practicable.

A Case of Puerperal Septicæmia Treated by Antistreptococcic Serum. By B. T. Read, M. R. C. S.—The author reports the case of a primipara, who had an apparently normal labor on June 16, 1900. Four days later her temperature was 103° F., and she gave forth a septic odor. No examination *per vaginam* had been previously made, as everything appeared normal and the external skin was untorn, but an internal perineal laceration was then discovered. It was learned that the patient had left her bed, on the previous day, to defecate. The temperature remained elevated, and the administration of antistreptococcus serum was begun on June 23d, 10 cubic centimetres being injected twice daily until June 30th, when the fever broke, the temperature falling to 90° F. It remained normal for fifteen days, when there was a slight exacerbation for four or five days, due to the formation of an axillary abscess. Symptoms suggestive of pulmonary embolism were noted on June 23d. The perineal laceration was dusted with creolin, and the vagina was douched alternately with permanganate of potassium solution and tincture of iodine. Warburg's tincture was given internally during the early stage of the disease, but without effect. The serum treatment entirely relieved the headache and nausea of which the patient had complained; they promptly returned whenever the administration of the serum was delayed. The author thinks that without the aid of the antistreptococcic serum he would have lost his patient.

Mercurol as an Antiseptic in Diseases of the Nose and Ear. By R. Lake, F. R. C. S.—The author has used mercurol in cases of acute suppurative otitis immediately after incising the membrana tympani, and finds it to be of great value. The three cases were all cured within ten days, the most rapid cure being four days. The mercurol was used in solution (from two and a half to five per cent.), the ear being irrigated through the meatus; or a small quantity of the solution may be curol is the least irritating efficient antiseptic, and is injected into the cavity of the middle ear through a Eustachian catheter. In chronic suppuration of the middle ear, the general results obtained are slightly above the average with other antiseptics. The author thinks meresspecially valuable as a lotion for the irrigation of cavities such as the maxillary sinus.

A Case of Morphia Poisoning Treated by Atropine. By Dr. E. Ground.—The author reports the case of a man aged sixty-one years, who had taken one ounce of solution of hydrochloride of morphine (four and one-third grains). An emetic was given which was ineffectual; one thirty-third of a grain of atropine was then given hypodermically, and three grains of permanganate of potassium by mouth. The patient exhibited all the classical symptoms of opium poisoning. The injections of atropine were repeated every two hours, until one-eighth of a grain had been given, and the potassium permanganate every three hours. The condition of the patient improved after the first injection of atropine; and fifteen hours after taking the morphine he recovered consciousness. However large the dose of opium or morphine may be, there need be no despair, with the help of atropine, oxygen and artificial respiration, of rescuing from death the person poisoned, even after the poison has become thoroughly absorbed.

British Medical Journal, December 15, 1900.

Polyorromenitis, or Combined Serous Inflammations. By Dr. F. Taylor.—The frequent association of the serous cavities in a common lesion is a fact which has long attracted attention. It may be acute, or subacute, or chronic, and the causes of these varieties are likely to be different. The pneumococcus is a frequent cause; then follow streptococcus or staphylococcus invasion, the poison of rheumatic fever and the tubercle bacillus. Tubercle plays its most important part in relation to chronic and subacute inflammations of the serous membranes; it rarely causes acute polyorromenitis. It is more frequent in males than in females, and the majority of cases occur between the ages of sixteen and thirty years. The disease generally begins in one serous membrane and subsequently invades the others, and thus invasion occurs according to the following five types, of which the first-mentioned is the most frequent, and the last-mentioned the least so:

1. The peritonæum is first attacked, then the pleuræ, beginning generally with the right pleura.
2. The pleuræ, then the peritonæum.
3. The pleura of one side is first invaded, and then that of the opposite side.
4. Pericarditis generally follows a pleurisy, and especially a left-sided pleurisy.
5. The inflammation may first involve one pleura, then the peritonæum, then the other pleura.

The interval between the invasion of the different sacs may vary from a few weeks to some months. The result may be recovery with adhesions or a fatal termination in phthisis. The prognosis depends on the cause. The prognosis of pneumococcous polyorromenitis is much more than that of a pneumococcous pneumonia or empyema. Streptococcous and staphylococcous polyorromenitis is undoubtedly often fatal, while the rheumatic form of the disease is of much less serious prognosis. Of the cases of subacute or chronic multiple inflammations that are attributed to tubercle, the prognosis is still more favorable. Tuberculous peritonitis is probably fatal in more than half the cases; pleurisy is directly fatal in a much smaller number; but the associated lesion is not likely to be less fatal than the more fatal of the two operating alone. The addition of a tuberculous pericarditis renders death almost certain. And there always remains the risk from permanent adhesions. The author cites two cases of polyorromenitis, one tuberculous, the other streptococcous, of which the latter proved fatal.

Prognosis and Treatment in Pulmonary Tuberculosis. By Dr. R. Maguire.—The concluding Harveian lecture on this subject. (See abstract of the *Lancet* for December 15, 1900, in this number of the *Journal.*)

The After-history of Applicants Rejected for Life Assurance. By Dr. A. MacPhail.—The author's investigations have been conducted for the following purposes:

1. To determine the ratio which rejections bear to all applications.
2. To ascertain the causes of rejection.
3. To trace the after-history of such cases.

He has consulted the records of one of the large United States companies, and finds that from 1885 to 1900, the applications were 5,115 in number, and the risks declined were 409; the rejections therefore amounted to 8.11 per cent. Of these 409 rejections, 84 were declined because of a family history of phthisis, 31 because of rheumatism in the applicant, 57 for pulmonary disease, 50 for cardiac disease, 79 for genito-urinary troubles, 25 for diseases of the nervous system, and the remainder for various other causes. Of these 409 rejected cases, the author has ascertained the after-history of 235. They are all living except 31, and he gives a table showing the cause of death in each case. The average period of exposure is ten years, probably too short a time. The author reviews the various causes for rejection and the importance which should be attached to each. The questions of cardiac irregularity, albuminuria, glycosuria, alcoholism and pregnancy are in turn discussed, and their relative importance considered.

A Case of Varicose Aneurysm of the Aorta Communicating with the Pulmonary Artery. By Dr. J. M. Clarke.—The author reports a case of this affection occurring in a man aged thirty-six years. A brief summary of the clinical history is that the patient, without obvious cause, began to suffer from shortness of breath, palpitation, and œdema beginning at the feet. There was a marked thrill over the left side of the chest, and a loud, continuous murmur, with systolic and diastolic exacerbations. Later there were marked anasarca, scantiness of urine (varying from 9 to 16 ounces a day), orthopnœa, and gradual failure of the pulse. At the autopsy, a small sacculated aneurysm, rather oval in shape and about the size of a bantam's egg, was found, opening out just above the anterior cusp of the aortic valve. The wall of the aneurysm was adherent to the pulmonary artery just over the right posterior cusp of the pulmonary valve, and a perforation about the size of a sixpence had taken place into the origin of the pulmonary artery. The case is very similar to one reported by Gairdner, and the points to be borne in mind in reference to future diagnosis of gradually established communication between the aorta and pulmonary artery, are, the gradual onset with shortness of breath, palpitation and dropsy; the peculiar murmur and thrill heard and felt at the base to the left of the sternum; enlargement of the heart and dilatation of the right ventricle; rapid development of general dropsy and scanty excretion of urine; absence of cyanoses and orthopnœa; moderate increase in the pulse rate; great engorgement of the liver, and possibly a sense of well-being relatively to the serious condition present.

What is a Disease? By S. W. MacIlwaine, L. R. C. P.—A disease is "the sum total of the pathological consequences resulting in a patient from the interference with his physiological state by a disease cause." The author classifies diseases as due to intrinsic, extrinsic, and undetermined causes, and gives a table of examples under each heading.

The Relation between Cause and Effect in Disease. By Dr. C. P. White.—There are two ways in which a disease may be specific: 1. It may be due to a specific causal agent. 2. It may be characterized by specific lesions. With regard to the question of specificity, the author lays down the following two complementary laws:

1. No specific causal agent always gives rise to characteristic lesions.
2. No specific lesion is always produced by a single definite causal agent.

Various diseases are considered in relation to the above laws, and the author draws the following conclusions:

1. If a disease is due to a specific causal agent, it is not characterized by specific anatomical or functional lesions.
2. If a disease is characterized by specific lesions, we must not expect to find a specific causal agent. From this it follows that from the characters, histological or macroscopical, of the lesions we cannot positively affirm that the disease is due to a specific causal agent. The only means by which we can affirm this, is to find and isolate the causal agent itself.
3. Variations in the characters of the lesions in diseases due to specific causal agents depend, not on the nature of the agent, but on the locality to which it is applied and on its relative virulence.

Myokymia, or Persistent Muscular Quivering. By Dr. R. T. Williamson.—The author reports a case of that rare affection to which Schultze has given the name of "*myokymie*," and King that of "myoclonus fibrillaris multiplex." He has found records of only eight cases in the literature. His own patient was a man aged twenty-one, who had been suffering from quivering of the muscles of the whole body for two years. There had been no cessation or diminution of the symptom since its onset. The patient could perform all the movements of the arms and legs and there was no localized wasting or paresis of muscles, and no rigidity. The quiverings were neither diminished nor increased by voluntary movements; he could write fairly well. He was not helped by any form of treatment. The cause and pathology of this peculiar affection are at present unknown.

A Brief Account of the Recent Epidemic of Cholera in Kashmir. By Dr. E. F. Neve.—Kashmir has been once more visited by a sharp epidemic of cholera. Compared with the last two epidemics, this one has been comparatively slight. The reasons are not far to seek: (1) a good supply of pipe water has been brought to the city; (2) in the early autumn, the nights begin to get quite cold owing to the altitude; (3) a great deal has been effected in the way of sanitation in the past few years. The mortality has been quite constant; about 56 per cent. prophylactic treatment with sulphuric acid proved of value in averting the disease. The author insists strongly on the immense importance of early treatment with some preparation of opium. Seventy per cent. of those treated by him in this way recovered.

Quinine Hæmoglobinuria. By Dr. A. G. Welsford. —The author reports an instance of hæmoglobinuria due to quinine, which is interesting because such cases are very rare. The exact relationship between blackwater fever and malaria is not yet made out, but the symptoms of the former are so definite that the fever can readily be distinguished from the transient hæmoglobinuria which in this case followed the administration of quinine. Blackwater fever, if not due to a specific organism, is due to the toxine of malaria, and falls into line with the hæmoglobinuria sometimes produced by the toxines of syphilis, yellow fever, typhoid and scarlet fevers.

Indépendance médicale, December 5 and 12, 1900.

The Heart in the Infectious Diseases (*conclusion*).—M. Samuel Bernheim says that all infectious and toxic diseases have an injurious influence upon the heart. The bacilli of tuberculosis and of typhoid fever, the cocci of gonorrhœa and pneumonia, are often found on the heart valves and in the great vessels. Infectious diseases not only evoke cardiac complications, but increase the gravity of the illness and augment such lesions as already exist. Grippe and diphtheria are notable examples. The prognosis of these diseases is favorable or unfavorable, as the heart is respectively little or gravely affected. Treatment is also modified by these complications, and must be directed toward the discovery of the threatening elements, toward the institution of symptomatic therapeutics and toward meeting emergencies as they arise.

Gazette hebdomadaire de médecine et de chirurgie, November 25, 1900.

The Levator Ani and Pelvic Prolapse.—M. Mériel describes the anatomical and physiological features of the levator ani and its function in preventing prolapse of the rectum, the vagina, and the uterus. He thinks Hegar's operation of colpoperineorrhaphy is the operation of choice in simple vaginal prolapse, while colpoperineorrhaphy preceded by amputation of the cervix will suffice for most cases of prolapse of the uterus with hypertrophy of this part; total hysterectomy will exceptionally be necessary. The various plastic operations are only auxiliary to the perineovaginal plastic procedure. For rectal prolapse, he prefers the operation of Duret (rectoperineorrhaphy) which simultaneously diminishes the calibre of the rectal ampulla and restores the perinæum. He considers it the most rational, since it attacks the source of the prolapse.

December 2, 1900.

Acquired Partial Exstrophy of the Bladder.—M. L. Tixier and M. C. Viannay report the case of a man of fifty years who had a partial exstrophy of the bladder following two operations of suprapubic cystotomy performed for vesical calculus forty-six years previously. He was completely cured by operation.

Sterilization. By Professor Terrier.

December 6, 1900.

Slow, Fatal Hydatid Intoxication.—M. Henri Dufour relates the case of a man, thirty-one years of age, who had hydatid cysts occupying the liver and lungs. Cachexia slowly advanced through eight years, finally causing the man's death. The main symptom was dyspnœa, which was not relieved by puncture of the cyst.

Presse médicale, November 24, 1900.

Treatment of Purulent Pleurisy.—M. G. Maison says that every case of empyema must be submitted to operation so soon as the diagnosis is made. General anæsthesia is to be avoided whenever it is possible, for fear the patients may die of asphyxia or syncope, accidents to which they are particularly susceptible. The opening for drainage must be placed at the most dependent part of the purulent cavity. The pleura must never be subjected to irrigation, as experience and statistics show that, in this way, the creation of a fistula is fostered.

Azote in the Gastric Juice. By M. J. Winter and M. A. Falloise.

November 28, 1900.

Researches upon the Parasite of Scarlatina. By M. H. Roger and M. Emile Weil.—(*Preliminary communication.*)

December 1, 1900.

Surgical Treatment of Appendicitis.—M. A. Routier, giving a review of a large number of cases, says that the only certain method of effecting a cure is by removal of the diseased appendix. By making his incision from one and a half to two inches in length, he has never had a ventral hernia. His technique is the usual one in other respects.

Rennet in the Gastric Juice. By M. Léon Meunier.

December 8, 1900.

Localization of Leprosy Bacilli in Various Organs. —M. E. Jeanseline, in an elaborate article, writes of tegumentary leprosy and the localization of the leprosy bacillus in various internal organs, the larynx, the nerves, the kidneys, the spinal cord and the eye. While it is impossible to abstract the entire paper, the author's remarks on the nephritis of leprosy may be considered. He says that this form of interstitial nephritis differs from others due to microbic invasion, in that the bacillus acts directly upon the nerves and these produce the infectious nodules which evoke the interstitial and parenchymatous degeneration. The nephritis begins by a peripheral expansion of the nerves, most pronounced in the large trunks. The intensity of the lesions does not advance from the periphery to the centre because the many leprous foci proceed gradually along the nerve tracks. The bacilli are often carried by the blood and thus gain entrance to the sheath of Schwann, where they proliferate.

Progrès médical, December 1, 1900.

The Pseudo-tubercle Bacilli. By M. F. Ramond and M. P. Ravaut.

Lyon médical, December 2, 1900.

Memorial to Professor L. Ollier.

Inflammatory and Hæmorrhagic Glaucoma Cured by Sympathectomy. By M. Louis Dor.

Journal des praticiens, November 28, 1900.

Should Persons with Alopecia be Admitted to Schools and the Public Service?—M. L. Brocq says that the majority of cases of alopecia are not contagious. Those which are, can transmit the malady only by direct contact. Children should be subjected to proper treatment. He does not believe that they should be excluded from the schools, nor the adults from the public service.

Surgical Treatment of Abscess of the Liver. By M. E. Schwartz.—A clinical lecture.

Prager medicinische Wochenschrift, November 29, 1900.

Fersan.—Dr. Max J. Buxbaum describes fersan as a brownish powder, with a slightly acid taste, easily soluble in water, not coagulated by heat. It is unchanged by gastric digestion and is fully absorbed by the intestines. It is given three times daily in doses of three grains. He finds it a hæmopoietic agent of great value in anæmia, chlorosis, convalescence from wasting diseases and in tuberculous and cachectic conditions.

Premature Separation of the Placenta during Pregnancy Due to a Short Cord.—Dr. Josef Mayer describes a case in which, at the seventh month, a woman had an alarming hæmorrhage after a sudden exertion. Over the left horn of the uterus a protuberance could be felt which in a few hours increased greatly in size. The child was in the breech position and was at once extracted after dilatation of the cervix with one of the legs. The diagnosis of placental separation had already been made. The protuberance of the uterus was found to be blood-clot. (*To be continued.*)

Shock after Abdominal Contusion. By Dr. P. Seliger (*continued article*).

Münchener medicinische Wochenschrift, November 27, 1900.

Hereditary Progressive Spinal Muscular Atrophy in Children.—Professor J. Hoffmann says that this disease represents a distinct ailment with a typical course and with constant anatomical changes. The latter are symmetrical, severe degenerations of all the peripheral neurones of the efferent motor nerves below the hypoglossus, including the spinal accessory. Bulbar phenomena are absent. The disease begins between the fifth and ninth months of life without any of the symptoms of an acute infectious disease, but with disturbances in the motion of the hip-joint. This comes on gradually, and, later, a weakness of the abdominal and back muscles appears. In the course of months or years the upper portion of the body becomes affected and the legs and thighs become involved. After the onset of the paralysis and atrophy—which is a gradual development—absence of the tendon reflexes and the reaction of degeneration are prominent signs. Sensation is undisturbed. The prognosis is bad, death usually occurring within four years.

Auto-infection in the Puerperium.—Professor Fehling says that at the present time, an absolute disinfection of the hands is not possible of achievement. The genital tract of pregnant women probably always contains saprophytes which are very similar to pathogenic germs and may be confused with them, but which are also capable of evoking infection. He considers it quite possible that, through traumatism of the vulva or the vagina during childbirth, germs may find their way into the uterus. (*To be continued.*)

Lessons Drawn from 300 Autopsies on Suicides.—Professor Arnold Heller has carefully studied 300 histories of suicides. He believes that more than fifty per cent. were in a mental condition that rendered them innocent of what they were doing. The cause assigned for suicide was usually not correct, as it was the "last straw." The real cause of most suicides lies in the abnormal reaction to comparatively trivial influences; this susceptibility arises from temporary or permanent physiological or pathological conditions.

Artificial Feeding of Infants (*continued article*). By Professor Soxhlet.

A Practical Method of Rendering Cow's Milk more Easily Digestible.—Dr. von Dungern recommends the addition of labferment to boiled milk, in order to avoid the formation of large clots in the infant's stomach. The milk is not altered in taste or appearance and is more easily digested by the infant.

Prophylaxis and Abortive Treatment of Gonorrhœa.—Professor C. Kopp says that the use of a condom or of a twenty-per-cent. solution of protargol in glycerin is to be advised to prevent gonorrhœa in a suspicious intercourse. The protargol solution is placed—five or ten drops are sufficient—just within the fossa navicularis, with an eye-dropper, immediately after coitus; or it is used on an applicator, with a vigorous rubbing of the mucous membrane in the neighborhood of the fossa navicularis.

Naphthalan in Eczematous Diseases of the External Ear. By Dr. H. Sagabiel.

Atropine Treatment of Ileus. By Dr. Holz, Dr. C. Denime, and Dr. Lüttgen.

Disinfection with Carboformal Blocks. By Dr. Erne.

Deutsche Medizinal-Zeitung, November 29, 1900.

Trochar with Double Cannula. By Dr. Dithmar.

Improved Method of Treatment of Rosacea and the Removal of Superfluous Hairs. By Dr. Bloebaum.

Wiener medizinische Blätter, November 29, 1900.

Tumors of the Pharynx and Larynx.—Dr. Theodor Meinhardt gives a review of the diagnosis between carcinoma of these organs, tuberculosis, and syphilis.

Study of Brain Cases. By Dr. L. Haskovec. (*Concluded.*)

The Literature of 1900 of Intestinal and Gastric Diseases. By Dr. Heinrich Keller.

December 6, 1900.

Bleeding.—Professor Maragliano gives an interesting historical sketch of bleeding. He adds that when there is venous and right ventricular stasis, decided benefit may be obtained by the procedure. At the same time, the blood is freed, in a measure, from deleterious substances in the various toxic conditions in the most rapid possible manner. From the fact that uræmic attacks are rendered less severe by menstruation and hæmorrhages, he argues the utility of bleeding in uræmia. It has no curative effects.

New Sensitive Reaction for Glucose.—Professor E. Riegler describes a new method for testing for urinary sugar as follows: Twenty drops of urine are placed in a test-tube; to this are added a small quantity of crystallized acetate of sodium, a little less of the muriate of phenylhydrazin and about forty drops of water. The mixture is heated to the boiling point and ten drops of a ten-per-cent. solution of caustic soda added. If considerable sugar is present, a rose-red color appears at once; if smaller quantities are present, the color will appear in a few minutes. Other aldehydes show the same reaction.

Open Ventricular Sæptum without Cyanosis. By Dr. C. Vinay.

Deutsche Aerzte-Zeitung, December 1, 1900.

Some Symptoms of Typhoid Spondylitis.—Dr. Ernst Neisser says that the appearance of continued temperature with lumbar neuralgia, even some time after convalescence from typhoid fever, should arouse the suspicion of vertebral disease of typhoid origin. The main symptoms are, the early appearance of a scoliosis, with or without contracture or degeneration of the erector trunci muscles, swelling of the soft parts, absence of any localized pain, with intense pain in the bones, and partial disappearance of a vertebra without abscess formation. The prognosis is usually good.

Airol in Venereal Diseases.—Dr. Martin Friedländer uses airol in solutions of from one-half to one per cent. as an irrigating fluid in acute gonorrhœa. It quickly stops the discharge, and the gonococci disappear. He does not regard it as a specific, but thinks it a more certain remedy than some other drugs in present usage.

Infection from Cadavers.—Professor D. Hansemann says that, with rigid cleanliness and care, infections need never occur from performing postmortem examinations. The cadaveric tubercle is usually harmless.

Literature on Tuberculosis in 1899. By Dr. Ott.

Wiener klinische Rundschau, November 25, 1900.

Cerebral Bladder Disturbances.—Dr. Ernst von Czylarz and Dr. Otto Marburg, in a preliminary communication, describe these disturbances as originating in the course of cerebral affections without disturbance of consciousness or the mental processes, while the nervous, muscular, and glandular apparatus of the bladder is intact. In unilateral lesions of the cortical motor area, retention of urine was observed, that is, the patient could not evacuate the contents of his bladder at will. Incontinence was seen when a lesion of the corpus striatum was present.

Lithiasis in Bosnia (*continued article*). By Dr. Josef Preindlsberger.

Iodopyrin in Fever.—Dr. J. W. Frieser describes this drug as a safe antipyretic having the antiseptic virtues of iodine. It appears in fine, colorless crystals, insoluble in water, slowly soluble in ether and alcohol. Adults receive fifteen grains three or four times daily. After months of usage, no untoward results were noted and no habit seemed to be formed. It has decided antirrheumatic, antineuralgic and antifebrile properties.

December 2 and 9, 1900.

Ætiology of Early Ulcerating Syphilide (*continued article*). By Dr. Jaroslav Bukovsky.

Röntgen Rays in Congenital Dislocation of the Hip. By Dr. Peter Bade.

Lithiasis in Bosnia (*continued*). By Dr. J. Preindlsberger.

Suppuration Due to the Diphtheria Bacilli.—Dr. Adolf Hala describes a case of a young girl who had an abscess of the face following a diphtheritic conjunctivitis. The rare find of the diphtheria bacillus in a suppurating cavity is recorded.

Ætiology of Early Ulcerating Syphilide (*continued article*). By Dr. Jaroslav Bukovsky.

Lithiasis in Bosnia (*concluded*). By Dr. J.Preindlsberger.

St. Petersburger medicinische Wochenschrift, November 17, 1900.

Prevention of Ankylosis.—Dr. Otto Thilo describes an apparatus to prevent ankylosis in the treatment of diseased or injured joints or joints that have been operated on. The rehearsal of the one for the hand will render the principle clear. A soft glove is placed on the hand; from the finger which it is desired to preserve, a piece of wicking is run over the dorsum of the hand to be attached to a buckle at the wrist held in place by another piece of wicking. As much motion as is desired is thus permitted, the wicking being slid in the buckle whenever it is wished to increase or decrease the amount of motion. The apparatus is very simple and can be modified to suit any joint in the body.

November 24, 1900.

Present Status of Surgery of the Kidneys and Ureters.—Dr. W. Greiffenhagen speaks of the recent advances in this domain of surgery. He says that even the medical diseases of the kidney, such as hæmaturia, have become the subject of operation if only for purposes of exploration. The value of deep incision into the kidney when it is congested, is dwelt upon. The author speaks of the progress in the technics of nephrectomy, nephrotomy, and nephrorrhaphy, and of the plastic operations on the ureter.

Berliner klinische Wochenschrift, November 19, 1900.

Legal Aspect of Border-line Mental Diseases. By Professor A. Cramer. (*To be continued.*)

Nitrogenous Metabolism after Hæmorrhage.—Dr. G. Ascoli and Dr. A. Draghi conclude from their experiments that the organism contains an excess of blood over that which is necessary for the ordinary nitrogenous metabolism ("Luxusblut").

Contribution to the Morphology of Staphylococcus Albus. By Dr. E. Saul.

Mother's Milk. By Dr. Michael Cohn.

Contribution to the Symptomatology of Facial Paralysis (*concluded*).—Dr. M. Bernhardt says that the symptom of contraction under electric stimulation of paralyzed muscles, when the same muscles of the healthy side are stimulated, may be reflex. At any rate, the phenomenon is characteristic of facial paralysis when the muscles on the diseased side show a diminution or total disappearance of sensibility.

Centralblatt für Gynäkologie, December 1, 1900.

Paraffine Injections for Incontinence of Urine.—Dr. R. Gersuny reports the case of a woman who had a vesicovaginal fistula after several attempts to close it by operation had failed. He injected beneath the mucosa of the bladder a quantity of fluid paraffine in such a manner that a ring of paraffine was formed about the vesicovaginal opening, producing a condition that simulated an enlarged prostatic gland in a man. It proved effective in closing the vesical orifice. The author states that many weeks later the paraffine masses had not diminished in size and the result remained good. It remained to be seen whether any of the paraffine would be subsequently absorbed.

Visits to Obstetric Clinics on the Continent. By Dr. J. Kalabin.

Diagnostic Errors.—Dr. Lichtenstein narrates a case in which it was thought that the patient had an abdominal tumor, which, however, proved to be the enormously distended rectum, filled with hard fæces, which could be removed only by the hand.

Centralblatt für Chirurgie, December 1, 1900.

Modified Saw for Craniectomy.—Dr. Leonardo Golgi has modified his well-known apparatus for operations on the skull, so that osteoplastic resections can be quickly accomplished. The new device has merits mainly as a timesaver.

Centralblatt für innere Medicin, December 1, 1900.

Treatment of Senile Pruritus.—Dr. Arthur Jænicke says that a striking phenomenon of this condition is the impression that is given of a malnutrition of the upper layers of the skin. It occurred to him to see what the result of a careful brushing with a soft brush would be. This was done at first three times daily for from ten to twenty minutes. In four or five days the whitish dust that had been brushed off had disappeared and did not reappear until the skin had again become dry. At the same time the itching disappeared, especially after each brushing. The author believes that the anti-pruritic effect of the treatment is enhanced by first washing the body with alcohol and allowing it to evaporate.

Wiener klinische Wochenschrift, November 22, 1900.

Identity of Pemphigus Neonatorum and Impetigo Contagiosa.—Dr. Rudolf Metzenauer has grown a number of cultures upon many media of cocci from the pustules of impetigo contagiosa and pemphigus neonatorum. He was never able to distinguish them apart under the microscope, and their biological peculiarities were absolutely identical. He admits that a certain difference can be detected between the two diseases clinically, yet it is established that if an adult is attacked by pemphigus of the new-born, it appears in the form of a contagious impetigo; and, if an infant acquires pemphigus from its mother, the latter has an impetigo. The histological findings are absolutely identical in both diseases; analogous cocci which cannot be distinguished, cause the two diseases, and inoculation experiments with both cultures show the same results. These facts serve to show that the two diseases are identical.

Case of Gonorrhœal Endocarditis.—Dr. Ludwig Stein narrates a typical case.

Iodoform Action and Substitution of Iodoform.—Dr. Alexander Frænkel has sought a powder which could replace iodoform in the treatment of tuberculous lesions, which should be free from the toxic possibilities of iodoform, should be inert in its influence upon the tissues, and should have no disagreeable sequelæ. This he has found in powdered animal charcoal. He injects it into tuberculous joints in a ten-per-cent. suspension in glycerin. The results in twenty-one cases have been exceedingly satisfactory. The author explains the theory of its action and suggests that the future therapy of pulmonary tuberculosis may rest upon the use of animal charcoal, as in healed areas anthrocotic deposits are usually found.

November 29, 1900.

Radical Operation for Uterine Carcinoma.—Professor E. Wertheim points out the insufficiency of vaginal hysterectomy and the present groundless fear of the high mortality of twenty years ago of the abdominal operation. The latter is the operation to perform at the present day, as it is essential, to secure permanent freedom from recurrence, to extirpate the glands in the pelvis as well as the parametrium. Of thirty-three cases in which this course was followed, eleven were found to have glandular involvement, a sufficient number to justify the operation theoretically. As it is impossible in every case to diagnosticate glandular and parametritic involvement, the abdominal route, including their extirpation, should be chosen. None of the thirty-three cases has yet shown a sign of recurrence.

Contribution to the Study of the "Thread Reaction." By Dr. Phillip Eisenberg.

Case of Tetanus Cured by Antitoxine.—Dr. Edmund Homa reports such a case in which the patient recovered by the subcutaneous use of Tizzoni's antitoxine.

Riforma medica, November 17, 19, and 20, 1900.

Concerning a Case of Paroxysmal Hæmoglobinuria. By Dr. V. Martini.—The pathogenesis of this condition is as yet obscure, and although numerous investigations have been made on this subject, the opinions of different observers vary considerably. The disease is not common, and most writers report only one or two cases; the condition is of such a nature that experiments upon animals cannot be performed, and we are always obliged to study it directly in man. Perhaps it is going too far to call paroxysmal hæmoglobinuria a disease, for it is really only a syndrome—one phase of the syndrome of hæmoglobinuria. The term paroxysmal hæmoglobinuria only expresses our ignorance as to the pathogenesis of this condition, and we do not even know whether all cases in which this phenomenon has been noted have the same pathogenesis.

One theory of its pathogenesis is that the red blood cells of the individuals affected, for some reason or other, give up their hæmoglobin after exposure to cold or some other cause. This question has been studied by Murri, and others. Murri attributed the changes in the red corpuscles to alterations in the blood-forming organs and the recurrence of the hæmoglobinuria to the stimulation of vasomotor centres through the agency of cold. The changes in the blood-forming organs are attributable to syphilis. Ehrlich assumed that the vessels contain certain ferments which are endowed with hæmatolytic powers. Schvostek found that if the blood of a patient is taken from a limb that has been previously constricted with a ligature, the serum of the blood will be colored red by hæmoglobin which is dissolved therein, while if the blood is taken from another vein without previous artificial stasis, the serum remains colorless. He concluded that stasis diminished the resistance of the red blood cells. Later researches, however, showed that there was no diminution of the resistance of the red cells in this condition, but that the fact that the hæmoglobin dissolved into the plasma was due to a change in the hæmatolytic powers of the serum. What this change is, we do not know as yet. It has been shown, however, that when the hæmoglobin is dissolved in the serum, the hæmatolytic power of the serum disappears, so that serum containing hæmoglobin cannot remove hæmoglobin from other red cells as colorless serum of the same patient can do (Viola and Chiaruttini).

The author investigated the case reported in the present article with a view of studying the pathogenesis of the condition, with special reference to the hæmatolytic power of the serum. He found that the globulicidal power of the serum of this patient was so marked, that when a few drops of it were added to some healthy blood and the two serums left in contact for fifteen minutes, the hæmoglobin dissolved from the red cells and colored the serum, while the cells became shrunken, and collected into amorphous masses. Various individuals were found to resist this effect of the hæmoglobinuric serum in various degrees. He also found that the number of red cells was considerably diminished in the blood of healthy individuals on addition of serum from a hæmoglobinuric subject. The pathogenesis of paroxysmal hæmoglobinuria, therefore, depends upon the hæmatolytic properties of the plasma which are shown both in the patient himself, and in healthy individuals when such plasma is brought into contact with healthy blood. Cold and exertion are probably agents which diminish the resistance of the red cells, and the origin of the hæmatolytic property of the serum in these patients is probably toxic; but just what this origin is, it is impossible to say at present.

November 21 to 26, 1900.

Concerning Duodenal Ulcers. By Dr. Giacomo Marocco.—The author gives a very exhaustive *résumé* of the subject, and reports two cases of duodenal ulcers in which operation was necessary.

Roussky Archiev Patologyi, Klinitcheskoy Meditsiny i Bakteriologyi, October, 1900 (Russian Archives of Pathology, Clinical Medicine and Bacteriology).

A Historical Note Concerning the Founding of the Medical Faculty at the Imperial University of New-Russia. An Address Read at the Laying of the Cornerstone of the Faculty Building, September 5, 1896. (The first academic session of the new medical faculty at Odessa was opened on September 1, 1900.)

A Brief Description of the Buildings of the Medical Faculty of the University of New-Russia. By the Dean of the Faculty, Professor V. V. Podvyssotsky.

Physics as the Basis of Natural Sciences. Inaugural Lecture Delivered at the Opening of the Medical School of the University of New-Russia. By the Rector of the University, Professor Th. P. Schwedoff.

The Staining of the Plasmodia of Malaria and other Protozoa by Romanovsky's Process and its Modifications. By Dr. N. Berestneff.—The staining of the chromatin in malarial parasites and in other protozoa is due to a dye which is formed in solutions of methylene blue under the influence of alkaline carbonates, particularly under the influence of heat. The following is the method of preparing this dye employed by the author: A one-per-cent. aqueous solution of methylene blue (Hoechst) is heated for three hours on the water-bath, after adding 0.3 per cent. of sodium carbonate. After heating, the solution is filtered, and 1.0 cubic centimetre of the mixture with 1.5 cubic centimetre of a one-per-cent. aqueous solution of methylene blue, and 5.0 cubic centimetres of an aqueous solution of eosine (extra B. A., Hoechst) in the strength of 0.1 per cent. Old specimens of semilunar organisms, and of the *Halteridium Danilevski* must be stained in this mixture for from fifteen to twenty hours, at the temperature of the laboratory. Young forms may be stained by immersing in the dye for from fifteen to twenty minutes, without heating, and then for from fifteen to twenty minutes, heating several times until vapor appears. In order to decolorize the blood cells which appear blue after this process, the specimens are transferred for from two to five seconds to the following mixture: 10.0 cubic centimetres of one-per-cent. methylene blue, 200 cubic centimetres of distilled water, and 0.25 cubic centimetre of acetic acid. The specimens are next washed in water, dried on filter paper, immersed for from five to twenty seconds in absolute alcohol, in order to dissolve the residue, and, finally, they are once more washed in water. Fresh specimens of blood containing plasmodia fixed with absolute alcohol, are stained in the same mixture diluted twice or four times with water, for five minutes without heating, and then for from five to ten minutes with one or two heatings. By this method the chromatin of plasmodia and of other protozoa is colored a deep reddish violet, the protoplasm blue, the leucocytic nuclei and the plaques of Bizzozero in like manner to the chromatin, the neutrophile granules pink, the eosinophile granules purple, while the red cells are stained a delicate pink.

The Rôle of Röntgen Photography in the Diagnosis of some Diseases of the Joints. By Dr. E. Broussilowsky and Dr. L. Bucgstab.—A study of radiographs taken in various cases of arthritic diseases convinced the authors of the great importance of this means of diagnosis. They report two cases of deforming arthritis, two cases of chronic articular rheumatism, and two cases of gout, and describe the radiographs taken in these cases as follows:

In rheumatism, the intra-articular space is more dark or is altogether obliterated. The epiphyseal contours are less well marked, and are darker than normal. In arthritis deformans, pronounced deformities of the bones are discovered, especially deformities of the phalanges, articular deviations in the form of luxations and subluxations of the phalangeal joints, and the intra-articular spaces are darker, in the same manner as in rheumatism. In gout, large light spaces are seen between the joint surfaces, and light spots appear in the epiphyses. In mixed cases, the appearances of the disease composing the condition are seen in the same specimen.

A Critical Review of Immunity. By Dr. Metschnikoff.—The author's conclusions are as follows: 1. Immunity in infectious diseases is nothing else than a special type of absorption of organized elements in general. 2. The most frequent phenomenon observed in natural and acquired immunity is the phagocytic reaction. 3. Phagocytes act in proportion to their sensitiveness, and to their ability to digest organized elements. 4. The extracellular digestion takes place under the influence of special ferments, among which the alexines occupy the first place. 5. The cytases (alexines) remain in the bodies of the phagocytes and are not liberated into the plasma. They can only combine with the fluids of the body in the presence of phagolysis, *i. e.*, injury to the phagocytes. 6. The substance known as *substance sensibilatrice, Zwischenkörper*, or philocytase, resists the action of temperature more readily than the other ferments, and thus assists the digestive function of the cytases. 7. Philocytase is a phagocytic product excreted in considerable quantities into the plasma. 8. The organism may resist infection, however, without the aid of philocytase in natural immunity, and in certain cases of acquired immunity. 9. Antitoxines are, if not wholly, at least in part, products of phagocytes. 10. The origin of both natural and acquired immunity may be traced ultimately to cellular activity.

The Present Status of the Question of Staining Tuberculosis Bacilli. By Dr. G. W. Gabritchevsky.

Albany Medical Annals, December, 1900.

The Albany Filtration Plant and its Effect on the Occurrence of Typhoid Fever. By Dr. Martin MacHarg.—A description of the new plant and a consideration of statistics from which the author concludes that "the Albany Filtration Plant as a means of diminishing the death rate from typhoid fever has been a grand success."

The Insane in General Hospitals. By Dr. J. M. Mosher.—The need is urged of the erection of special hospitals or special pavilions in connection with general hospitals for the treatment of the insane, which suggestion is about to be carried out in Albany by the addition of a pavilion for the insane in connection with the new Albany Hospital. "The design provides a two-story building, for separation of the sexes, connected with the main hospital by a corridor and conforming with the latter in architectural style. The outside dimensions are eighty by forty feet. From the main entrance to a large day-room, traversing the centre of the building, sleeping rooms lie on either side of a corridor. This space provides for one single bed-room, 11 by 15; two single bedrooms, 13 by 15; and an associate dormitory, 25 by 15. The day-room, with bow windows at either end, supplies ample cross-light, and adjoins the service rooms, thus permitting complete distinction between the day and night habitation. Beyond the service room, sixteen feet of the distal end of the building is separated by a double brick partition. This gives a distinct section, with entrance and stairway, containing two bed-rooms and service rooms for the care of excited patients. The disturbing element is thus removed from the quieter class during the night by half the length of the building, with several intervening doors and walls. The location of the pavilion protects the city from noise, a result which might otherwise be attained by special disposition of the windows of this extension.

"The scheme thus outlined represents the logical development of the modern idea of the demands of the insane. There is no precedent upon which to formulate a prophecy of the ultimate field of usefulness or results. It is anticipated that this pavilion will furnish (1) transient accommodations for insane patients committed to a State institution, and (2) for patients who need observation before the advisability of commitment to a State institution is determined; that it will be available (3) for mild cases of insanity who may recover in a general hospital, (4) for victims of drug addiction; and, lastly, as an emergency resort, will minister to (5) rapidly developing and critical cases of delirium, and (6) to the sudden and often dangerous forms of mental disorder which occur in the course of general diseases or after the shock of surgical operations and anæsthesia.

"In this legitimate extension of its work the general hospital in no way conflicts with the institution for the insane, but becomes an adjunct or integral factor. As a clearing-house, opportunities are offered for the discrimination and preparation of patients for the latter which should add greatly to its effectiveness."

Appendicitis. By Dr. Charles B. Mallery.—A descriptive article with report of a case.

Archives of Pædiatrics, November, 1900.

Cough in Influenza Simulating Whooping-cough. By Dr. F. Forcheimer.—This cough moves in epidemics, is decidedly contagious, and its onset is that of an ordinary attack of influenza. It usually first develops at night, but not so distinctively as in whooping-cough, as the attacks appear during the daytime as well. The cough is that of whooping-cough, but the peculiar whoop is not so characteristic as in pertussis. The congestive symptoms accompanying it, and the vomiting and expectoration following, are in every respect like whooping-cough. The blue color of the mucous membrane and tongue is absent, but the ulcer of the frenulum is even better marked than in whooping-cough. The complications and sequelæ are largely those of whooping-cough, but some must be ascribed to influenza. Left to itself, its duration is from six to eight weeks and longer, but it may be aborted so as to last not longer than from a week to ten days. *Full* doses of quinine reduce the duration of the disease. When the cough has developed thoroughly, phenacetine or antipyrine gives great relief. In very bad cases codeine must be given in full doses, and sometimes chloral to induce sleep. Should septicæmia develop, unguentum Credé or even the injection of anti-streptococcous serum is of great benefit.

Epidemic Paralysis in Children. By Dr. Henry Dwight Chapin.—These epidemics are generally considered as cases of anterior poliomyelitis, and, while the microbic origin of this affection may be assumed by analogy, it cannot, as yet, be scientifically demonstrated. However, there is doubtless more than one possible cause for poliomyelitis, sometimes of an infectious nature, sometimes due to refrigeration, and again to a possible traumatism. In epidemics, however, it is fair to suppose that there is an infectious element present. Two typical text-book cases accompany the article, and, though no specific micro-organism was found microscopically, other circumstances seem to prove to the author's satisfaction the infectious nature of the cases.

Malarial Coma in Children. By Dr. George N. Acker.—A clinical report of two cases. In the first case reported there seems to be no doubt that the coma was caused by the influence of the malarial parasite upon the nervous system, and interest also attaches to the very favorable effect of a lumbar puncture upon the comatose state. The second case was complicated by nephritis, and a question exists as to whether the malarial organism directly produced the convulsions and coma. It is reasonable to suppose, however, that both the kidney disease and the nervous disturbances were caused by the malarial parasite.

The Quantity of Diphtheria Antitoxine Required in the Treatment of Diphtheria. By Dr. W. H. Park.—As the result of extensive investigation, the author has adopted the following doses:

Very mild cases, 1,000 to 1,500 units for the first dose.

Moderately severe cases, 2,000 to 3,000 units for the first dose.

Very severe cases, 4,000 to 5,000 units for the first dose.

Laryngeal cases, according to their severity, 2,000 to 5,000 units.

For children under one year old he gives about a third less than for older children and adults. As from 40,000 to 60,000 units have been given, we need have no fear of giving all the antitoxine that we think indicated.

The Possibility of Eliminating the Deleterious while Retaining the Antitoxic Effects of Antitoxic Sera. By Dr. W. H. Park.—Antitoxines are, in all probability, substances having the properties of globulins, and they cannot, with our present knowledge, be separated from that portion of the blood serum which in susceptible persons produces disagreeable effects. In the future, either by selection of animals or by the treatment of the serum itself, we may succeed in producing a serum which, while antitoxic, will not be to any important extent deleterious. At present we should use only the serum from healthy animals and with not less than 200 units for each cubic centimetre.

A Case of Rhachitis with Enlarged Spleen. By Dr. William H. Jessup.

Brooklyn Medical Journal, November, 1900.

Torticollis. By Dr. Walter C. Wood.—Any arbitrary classification of the various cases of torticollis is at present faulty on account of our uncertainty of the ætiological factors involved.

In the torticollis of infancy, the situation is evidently in the sternomastoid muscle, and though a hæmatoma of this muscle has long been considered the usual cause of the shortening, Whitman has shown from observations that such is not the rule. It is unnecessary to open the hæmatoma. An ointment of potassium iodide in lanoline, used with gentle massage, is useful. Additional rest is a precaution. The author has not seen a true spastic wry-neck in an infant. The contractured cases in children are amenable to a combination of surgical, mechanical, and calisthenic measures, and a cure depends upon a correct appreciation of the amount of attention to be bestowed upon each plan of treatment in a given instance. Surgical intervention should be limited to the sternomastoid, the platysma, and the underlying fascia. The head should be restrained in a slightly overcorrected position with a plaster-of-Paris cast. Muscular torticollis comes with an acute onset, severe pain, and a history of exposure, and may be removed in a few days by the salicylates, the local use of heat, the Turkish bath, massage, and mustard or hot poultices. Osseous torticollis is due to the reflex irritation from caries of the cervical vertebræ, and, when acute, should be treated for some months on a frame cot in the recumbent position, with head extension, and only after the pain has ceased should any brace, collar, jury-mast or chin-cup that permits an upright position, be applied. In cases due to ocular defects, remove the defect. Cases due to occupation are similar to other professional neuroses. These cases can be greatly improved and generally cured by prolonged rest in bed, combined with sedative and later tonic medication.

It remains for the neurologist to establish a more exact pathology, in the severe spastic cases, and to indicate where and when, if ever, a cortical operation is advisable.

Tubercular Peritonitis. By Dr. G. McNaughton.—Text-book article of moderate interest. This disease may be primary and local, or secondary to a general tuberculosis. In women, the process usually extends from the Falloppian tubes, though this is questioned by Williams, who believes that genital tuberculosis is usually secondary to tuberculous peritonitis. In operations for tubo-ovarian diseases, the author has frequently noticed in the tubes or in the peritoneal covering of the tubes, small granular masses very resisting to the touch and not easily seen. He explains their presence upon the theory that they are tuberculous, and he believes that this will account for so many of the diseased annexa that have been so little understood. Illustrative cases accompany the text.

Tubal Gestation. By Dr. E. D. Ferris.—This is one of the gravest conditions which may threaten the life of a female. The symptoms, in the majority of cases, are slight, the patient having no knowledge that anything abnormal exists until taken with sharp pain in the abdomen, followed by all the symptoms of great loss of blood, which may be so severe as to put the patient's life in peril. Its ætiology is obscure and speculative. J. Bland Sutton believes that the fact that pregnancy occurs in the tube after a long period of sterility in women who have borne children, has given color to the suggestion that the patients having suffered from desquamative salpingitis, with destruction of the proper ciliated epithelium, will account for the presence of tubal gestation, inasmuch as it puts the mucous lining of the tube into a condition exactly similar to that of the uterus after menstruation. The author details the well-known symptomatology and gives three cases.

These cases are sometimes diagnosticated as threatened or incomplete abortions, the uterus is curetted, and subsequently comes rupture. Death may follow if prompt surgical treatment is not at hand. This unhappy result might have been avoided if the discharged shreds from the uterus had been examined; if they were found to be chorionic villi the pregnancy was undoubtedly uterine.

American Journal of Obstetrics, November, 1900.

The Education of the Laity upon Sexual Matters. When shall they be Taught, and to what Extent? By Dr. Rufus B. Hall.—The author advises systematic instruction on embryology, hygiene, anatomy, and physiology, including sexual physiology, during the last year in every high school in the country. If the sexes are taught separately, there need be no breach of propriety. Let the laity understand the meaning of pelvic inflammation in young wives, as we understand it; disseminate the knowledge to every youth that "clap" is more dangerous than syphilis, and great good will be accomplished at once. Such education would do more in ten years' time to correct the social evil, the evils of criminal abortion and of gonorrhœal infection among young men and their wives, than has been done in the past hundred years.

A Contribution to the Surgical Treatment of Uterine Displacements. [With Six Illustrations.] By Dr. Charles A. L. Reed.—Of the failures that occur after surgical treatment of uterine displacements, the majority are attributable to the operation of abdominofundal fixation undertaken for the cure of retrodeviations. In the majority of them, the persistent tendency of the uterus to resume its normal position causes the formation of an adventitious ligament between the fundus of the uterus and the anterior abdominal wall. When this ligament is of extreme development, a considerable range of mobility is given to the uterus. The author asserts that in most cases of retrodeviation the intraperitoneal shortening of the round ligament is the operation of choice. To seize the round ligament for the purpose of folding it upon itself, he has devised a forceps with four flat approximating prongs, the whole being an inch across. In long-standing flexions, we very often have an atrophy of the concave wall, and a hypertrophy of the convex wall at the point of flexure. The author overcomes this by removing a cuneiform segment from the hypertrophied wall.

Notes of Four Cases of Perforated Gastric Ulcer, with Remarks. By Dr. Henry Howitt.—The author's cases have been typical. His remarks are of interest. When gastro-enterostomy is required, no method has so many good qualities as that of Dr. J. B. Murphy. Posterior gastro-enterostomy has probably given better results than anterior, but, occasionally, circumstances will arise in which either adhesions or the element of time will compel us to adopt the latter.

The author recommends the plan of injecting a nutritive into the jejunum and a cathartic into the colon during the operation, and, for both procedures, he advises the use of an apparatus like that in use for introducing normal saline solution, but with a needle of greater calibre.

The Diagnosis of Ectopic Pregnancy before Rupture, Based on Eleven Cases. By Dr. J. F. Baldwin.

Erroneous Objections to Bilateral Inguinal Cœliotomy and Shortening of the Round Ligaments via the Dilated Internal Inguinal Rings, and its Superior Ultimate Results in Simple and Complicated Aseptic Retroversions of the Uterus. By Dr. A. Goldspohn.—The cœliotomy feature in conjunction with the Alexander operation, to the extent of dilating the opening in the peritonæum and the internal ring sufficiently for exploration of the internal organs by means of one finger, is advantageous on each side of all simple cases, and is necessary in all complicated cases. The operation has practically no mortality. Of the author's twenty-two cases operated upon, fifteen are well and discharging their duties regularly, with only an occasional headache or sideache, or slight pain with menstruation. Three attend to their duties regularly, but have more severe or more frequent pain from their pelvic organs. The remaining cases are well so far as their generative organs are concerned, but they are partly disabled by tuberculosis of the urinary tract, endocarditis, and catarrh of the nasopharynx and bronchial tubes respectively. The operation has corrected the position and condition of the generative organs in all except one case, and it has eliminated the symptoms from them in all but four cases, in which they are less severe but not absent. The various methods of shortening the round ligaments by doubling them up or stitching loops into them, are dependent upon the uncertain tenure of stitches and adhesions. They are frequently followed by a relapse of retroversion before pregnancy supervenes, and when this does follow and goes to term, it effectually eliminates all such loops from the round ligaments, as the author has repeatedly seen, and leaves the ligaments as long as ever.

Postrectal or Presacral Growths. By Dr. James F. W. Ross.—The tumor can readily be made out to be behind the rectum. If definite fluctuation occurs, it must be a simple cyst or a dermoid cyst. If it is semi-solid and gives a sense of fluctuation, it may be a dermoid. If no true fluctuation is found, and the tumor is very soft, irregular, and uneven, we may suspect a lipoma. If of brain-like consistence and without true fluctuation, it is either a sarcoma, a myoma, or a fibroma that has undergone œdematous change. If hard, rounded, and smooth, it may be a myoma or fibroma that has not undergone œdematous change. When filled with fluid, these postrectal tumors feel very tense. The enchondromata and osteomata will be found fixed to the sacrum and will be rounded, flattened, or spike-like.

Observations Respecting Malignant Disease of the Pelvic Organs. By Dr. Augustus P. Clarke.—The only effectual radical method of treatment of cancer is by excision, or by the liberal employment of the actual cautery. Total excision of the part embracing the neoplasm in its earliest stages, when possible, will afford the most satisfactory result.

Acute Senile Endometritis. By Dr. L. H. Dunning.

Simple Methods in Pelvic Surgery. By Dr. John B. Deaver.

Tubo-ovarian Abscess and how Best to Deal with it. By Dr. Edwin Ricketts.

Fibroma of the Ovary. By Dr. L. H. Laidley.

Hernia, or Diverticulum of the Chorion. By Dr. L. H. Laidley.—This is a very interesting case, and in the literature there does not seem to be a single other instance of this form of tumor.

Jaundice Following Abdominal Section. By Dr. Henry D. Ingraham.—The author, in this connection, advances the theory of septic infection, but he is willing to accept any other explanation that is more plausible.

The Ligature, and Value of Dry Sterilized Catgut. By Dr. J. H. Carstens.

The Treatment of Fibroids in the Non-pregnant Uterus. By Dr. E. F. Fish.

Some Points Regarding Surgery of the Gall-bladder. By Dr. A. Vander Veer.

Some Contraindications to the Intraperitoneal Use of Normal Salt Solution after Abdominal Section. By Dr. Frank F. Simpson.

Pelvic Suppurations. By Dr. Joseph Price.

Private Hospitals and their Management. By Dr. Joseph Price.

Dublin Journal of Medical Science, November, 1900.

Urinary Infiltration. By H. G. Croly, F. R. C. S.—When the bladder is distended, the abdominal muscles force the urine through the ruptured or lacerated urethra into the cellular membrane. The scrotum, penis, the perinæum, and the groins, are distended with urine, the first effect being relief to the patient's suffering. After this deceptive interval of ease, the urine becomes altered; its watery parts are absorbed and, wherever it penetrates, it excites inflammation and kills the parts with which it comes in contact. The bulbospongy urethra is the most frequent seat of stricture, and, in rupture posterior to this point, the urine easily escapes forward into the perinæum, scrotum, penis, and lower part of abdomen. The visible signs may be absent, the urine making its way around the neck of the bladder into the ischio-rectal fossæ and corpus cavernosum. A black spot on the glans is considered as a fatal sign. Urinary infiltration from so-called false passages and clumsy catheterism is rare; when extravasation occurs anteriorly to the bulb, the swelling is usually confined to the penis. The extent of the extravasation and subsequent sloughing depends upon the force with which the urine is injected, the quality of the urine, and the distension of the cells of the areolar tissues. In the treatment of urinary extravasation three main objects must be kept in view: (1) to prevent further escape of urine into the areolar tissues; (2) to give free vent to that already extravasated; (3) to combat fever, to support strength, and to carry out Listerism in dealing with the parts involved. The author advises a deep, long, central incision into the perinæum from behind forward and the passage of a catheter into the bladder. At least two deep, long incisions into the scrotum are to be made; these last are to be at once plugged with cyanide gauze saturated with turpentine to arrest hæmorrhage.

Bubonic Plague. By Dr. M. M'Hugh.—There are two principal modes by which the plague virus finds ingress into the human body. One of these channels is through the skin by direct inoculation, as the result of which the glands next in anatomical relation become swollen and tender, thus forming the characteristic bubo. This is the chief mode of entry and produces the common or bubonic form of plague. The other channel is by inoculation of the mucous membrane of the nose, with secondary infection of the respiratory tract. This leads to plague pneumonia, not necessarily accompanied by buboes, and a specially fatal form of the disease. Other mucous membranes may become the seat of primary inoculation. Actual contact with infected materials seems to be a necessary condition for the production of the disease. Physicians and nurses in attendance on cases of plague are very seldom attacked when reasonable precautions are taken. The contagion is conveyed by fleas in a manner closely analogous to the transference of malaria by mosquitoes. There is little doubt that the disease is diffused among rats mainly through the instrumentality of the fleas which desert the bodies of the dead animals and convey the infection to the living, and that not only other animals, but human beings also may become infected by the same process. This explains why the lower stories of buildings suffer severely. Contact with rats recently dead is highly dangerous, but when dead some time and quite cold, that is, when the fleas have entirely disappeared, they may be touched or handled with impunity. Dogs and cats, our principal domestic pets, are not very susceptible to plague infection. Nevertheless, they may readily act as carriers of infected fleas. The article closes with a short description of the different varieties of plague and of the clinical picture to be observed in a typical case of this malady.

Observations on a Successful Case of Cæsarean Section. By Dr. G. Cole-Baker.—The author reports a successful case of Cæsarean section performed upon a woman aged thirty-five years, who was parturient for no less than the eleventh time. Of the previous pregnancies, three terminated by forceps, one child being now living; twice, after failure of forceps, version with craniotomy had to be performed; five pregnancies ended naturally, two of the children being now alive. In the eleventh pregnancy the indications for Cæsarean section were as follows: (1) the fact of the tenth delivery necessitating craniotomy; (2) the history of six other deliveries having resulted disastrously for the infants; (3) the patient had been forty hours in labor, her condition was growing worse, and the infant's heart's sounds were increasing in frequency; (4) absence of any head moulding; (5) the choice lying between craniotomy and Cæsarean section.

The operation itself was a perfect success; in incising the uterus, the operator unfortunately struck the placental site and there was free hæmorrhage. As soon as the child was extracted, however, the uterus contracted well and permanently, at once expelling the placenta through the incision. The child was asphyxiated when extracted, but respiration was soon restored.

Book Notices.

L'Année chirurgicale. Revue encyclopédique de chirurgie générale et spéciale. Publiée sous la direction du Docteur A. DEPAGE, Agrégé à l'Université Libre de Bruxelles, etc. Deuxième, troisième et quatrième fascicules. Bruxelles: Henri Lamertin, 1900. Pp. 673 to 2404.

THE first fasciculus of this work was reviewed in this journal at the time of its issue, and there remains but little to be said as regards the three other parts of this annual encyclopædia of surgery. The last three sections of the work treat of the special branches of surgery, including gynæcology and obstetric surgery. With the discontinuance of the *Index Medicus,* it has become difficult to get a complete bibliography of any subject in medicine or surgery, and it is especially for this reason that Depage's annual is welcome to all who have occasion to study a surgical theme in the light of what others have written within the past year or two. The present edition is more complete in many respects than that of 1899. It is true, many of the articles reviewed receive but brief mention, but all important papers seem to have been analyzed with care, and the *résumés* appear to contain all the essential details. A mass of statistics which is nowhere else accessible in collated form is contained in this annual. The work of American surgeons receives full recognition, and the index contains a large number of names of English and American observers. The errors are few and far between, and the editorial work has been admirably done. The amount of labor spent in the preparation of this great volume must have been enormous, and we congratulate the editor upon the manner in which he has acquitted himself of his task. Several improvements are promised for the next edition, that of 1901, which will cover the work of the year 1900, and among these improvements we are glad to note a division into separate volumes treating of groups of allied subjects.

Comfort and Exercise. An Essay Toward Normal Conduct. By MARY PERRY KING. Boston: Small, Maynard, and Company, 1900. Pp. 3 to 138.

THIS little book contains a series of essays on comfort in daily life, in education, and in dress, and on physical exercise as related to the right mode of living. Written in a fascinating style by one who has the courage of her convictions and does not hesitate to call the proverbial spade by its proper name, these essays will make pleasant reading for the busy physician in the odd quarter-hours.

The essays on comfort treat the subject first from the philosophical, then from the practical point of view, and their substance is perhaps best typified in the following passage: "True comfort, true luxury, true happiness, depend not at all upon the number of possessions or the elaboration of conveniences, but rather on the ease with which we derive the greatest personal gratification from the simplest extraneous conditions, and on the skill with which we adapt conditions to our personal needs and preferences with the least expenditure of energy and waste in friction."

The essay on Comfort in Education considers education as it is related to the daily life of the educated man or woman. The writer pleads for a more thorough and systematic study of the means of expression—reading, writing, and talking—in connection with higher education; for erudition without the means of proper expression cannot benefit the world and can give no comfort, no satisfaction, and no enjoyment of life to the possessor. No education can be said to be truly liberal which does not give the student the powers of expression.

It can only be regretted that the essay on Comfort in Dress is so short and deals only with general principles. As one reads it, one feels that the writer can say a great deal more on the subject. The principles discussed include the fundamental notions of the hygienic, artistic, and philosophical aspects of dress. The last-named division of the subject, it may be said here, concerns the selection of dress to fit the environment, the occupation, and the occasion, while the art of dress treats of the selection of clothing according to the canons of good taste and the individuality of the wearer.

The last two essays, entitled Educational Exercise and The Ideal Gymnasium, are more particularly of interest to the physician. We regret that we cannot give a detailed analysis of these chapters, but there is no doubt that the essays are important contributions to the literature of physical education. Many of the principles therein considered are comparatively new, and have, unfortunately, not as yet been applied in the majority of gymnasiums in this country or abroad. Special stress is laid upon the laws of natural rhythm, quality, time, and force of motion as related to gymnastics; upon the value of breathing exercises, and of exercises in correct tone production, enunciation, walking, and carriage; upon the hygienic appointment of a modern gymnasium; and upon the necessity of providing opportunities for rest between the exercises.

The book certainly should be in the hands of all who are interested in the subject of physical training.

BOOKS, ETC., RECEIVED.

Encyclopædia Medica. Under the General Editorship of Chalmers Watson, M. B., M. R. C. P. E. Volume II, Brachial Plexus to Digestion, pp. vi-562; Volume II, Diphtheria to Food, pp. vi-545; Volume III, Foot to Hernia, pp. vi-534. New York: Longmans, Green & Company, 1900.

Uric Acid as a Factor in the Causation of Disease. A Contribution to the Pathology of High Blood Pressure, Headache, Epilepsy, Mental Diseases, Paroxysmal Hæmoglobinuria and Anæmia, Bright's Disease, Diabetes, Gout, Rheumatism and other Disorders. By Alexander Haig, M. A., M. D. Oxon., F. R. C. P., Physician to the Metropolitan Hospital, etc. Fifth Edition, with Seventy-five Illustrations. Pp. xvi-846. Philadelphia: P. Blakiston's Son & Company, 1900. [Price, $3.]

The Mental Affections of Children: Idiocy, Imbecility, and Insanity. By William W. Ireland, M. D. Edin., formerly Medical Superintendent of the Scottish Institution for the Education of Imbecile Children, etc. Second Edition. Pp. ix-450. Philadelphia: P. Blakiston's Son & Company, 1900.

The Micromotist's Vade-mecum. A Handbook of the Methods of Microscopic Anatomy. By Arthur Bolles Lee. Fifth Edition. Pp. xiv-532. Philadelphia: P. Blakiston's Son & Company, 1900. [Price, $4.]

Diseases of the Throat, Nose, and Ear. A Clinical Manual for Students and Practitioners. By P. McBride, M. D., F. R. C. P. Ed., Fellow of the Royal Society of Edinburgh, etc. Third Edition, Revised and partly Rewritten. With Colored Illustrations from Original Drawings. Pp. xvi-744. Edinburgh and London: Young J. Pentland. Philadelphia: P. Blakiston's Son & Company, 1900. [Price, $7.]

Die Entwickelung der Biologie im 19. Jahrhundert. Vortrag auf der Versammlung deutscher Naturforscher zu Aachen am 17. September, 1900. Gehalten von Oscar Hertwig, Direktor des anatomisch-biologischen Instituts der Berliner Universität. Pp. 31. Jena: Gustav Fischer, 1900.

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State of New York. State Commission in Lunacy. Eleventh Annual Report. October 1, 1898, to September 30, 1899.

Report of the Surgeon-General, United States Navy, Chief of the Bureau of Medicine and Surgery, to the Secretary of the Navy, 1900.

Proceedings of the Academy of Natural Sciences of Philadelphia, 1900. Part II, March-August.

New Inventions, etc.

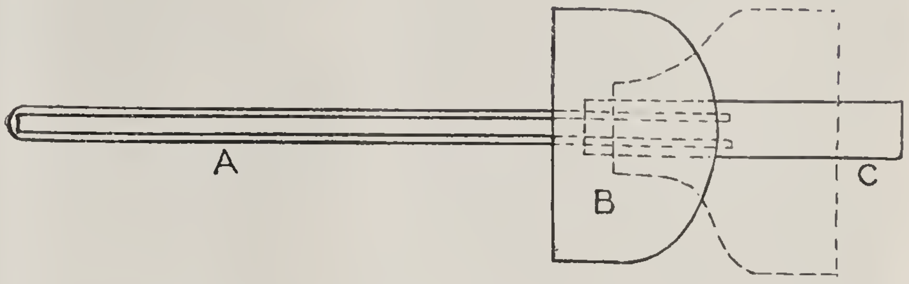
A SIMPLE URETHRAL IRRIGATOR.

By FREDERIC GRIFFITH, M. D.,

NEW YORK,

SURGEON, BELLEVUE DISPENSARY.

As successful surgery oftentimes depends upon the power of improvising, so, even when it is not an absolute necessity, the cultivation of this faculty will never be time misspent. The following is a description of a simple urethral irrigator:



A is made from glass tubing, cut in various lengths between 4 and 8 inches, and from $\frac{3}{16}$ to $\frac{3}{8}$ of an inch outside diameters (equal to No. 18 to No. 20, French urethral scale) of the relatively thick-walled tubing. The tubes may be left with a simple annealed end by rolling in a flame, or, with a blow pipe, after heating to redness, perforations may be blown at intervals of half an inch, the end being sealed. I have employed glass female catheters, but find them rather too fragile, the patient himself often complaining of the danger of breakage. *B* is half of an old atomizer bulb with the stem turned in. I must thank my friend, Dr. Tilton, in this connection for his suggestion of using halved atomizer bulbs for protectors. *C* is a piece of connecting rubber tubing, 3 inches long. The glass tube is inserted into this for the distance of about $\frac{3}{4}$ of an inch. The reversed hemisphere is then drawn over the tube *A*, to and over its rubber casing. The whole may then be held together with two turns and tying with a silk or gut string. After reversing the bulb portion the irrigator has but to be attached to any form of fountain syringe to be ready for use. The valve clip controlling the flow may be kept on the tubing *C*, where it can easily be reached.

I prefer my straight, open tubes after the pattern of the figure. The return flow is perfectly free, and with a force of two or three feet none of the irrigating fluid will enter the deep urethra.

To irrigate the deep urethra or the bladder, it is necessary to overcome the action of the compressor urethral muscle. If a force of four or six feet flow is not sufficient, directing the patient to breathe deeply or to try to make water will prove efficient. The membranous portion of the urethra may be entered by the tube and no harm will result if it is perfectly clean and gently manipulated. After the first flushing, the patient by lateral compression of the glans with his thumb and first finger, held until distention causes discomfort or until the desire to urinate is manifest, will increase the value of the irrigation by the more thorough cleansing of the distended but not overstretched mucous membrane lining the canal.

The instrument may be made in various sizes. It is cheap, it can readily be boiled, it does not corrode, and the use of a protecting apron for the patient's clothing is not necessary, as there will be no splashing if the foreskin is but kept retracted from the meatus.

805 MADISON AVENUE.

Miscellany.

Typhoid in the Army.—Surgeon-General Sternberg has made public a report upon the origin and spread of typhoid fever in the United States military camps during the Spanish war of 1898, prepared at his instance by a board consisting of Major Walter Reed, Surgeon, U. S. Army; Major Victor C. Vaughan, Division Surgeon,

U. S. Volunteers, and Major Edward O. Shakespeare, Brigadier Surgeon, U. S. Volunteers. The surgeon-general comments upon the widespread prevalence of typhoid in 1898, 20,000 cases of this disease appearing among the troops encamped within the limits of the United States, from May until September. More than 90 per cent. of the volunteer regiments are shown to have developed typhoid within eight weeks after going into camp, and the fever developed also in certain of the regular regiments within three to five weeks after the tents went up. Typhoid became epidemic in all camps, large and small, North and South. It is stated that, with typhoid fever as widely disseminated as it is in this country, the chances are that if a regiment of 1,300 men should be assembled in any section, and kept in a camp having the most perfect sanitary conditions, one or more cases of the fever would develop. Nevertheless, it was found that many commands during the war were unwisely located, that the space allotted to regiments was, in some instances, entirely inadequate, and that many regiments were allowed to remain on one site too long. The board condemns in general the methods of disposing of the excretions of the human body, holding that a lack of proper facilities in this respect was in large measure responsible for the prevalence of the fever. Infected water was found to be an unimportant factor in the spread of typhoid in the national encampments of 1898. The part played by flies in the dissemination of germs of the disease, however, was plainly evident. Except where urgent emergency makes it necessary, the board urges that one command should not be located upon a site recently occupied and vacated by another. It is urged that the soldiers' beds should be raised from the ground, for the men are reported to have slept in dust piles possibly infected with typhoid germs; and also that the soldiers be made to remove their outer clothing at night, wherever possible.

The Twenty-eighth Annual Meeting of the State Charities Aid Association was held recently in New York. Mrs. Tunis G. Bergen said that the pressing need of the Kings County Hospital and Almshouse was for additional accommodations. Miss Louisa Lee Schuyler reported that the number of insane patients in the eleven State hospitals (not including the criminal insane or patients in private asylums) was 22,088 on October 1, 1900, an increase over the previous year of 714. Dr. George G. Wheelock, chairman of the Committee on Hospitals, said that the principal work of the committee had been in connection with the establishment of a State hospital for the treatment of incipient cases of consumption. The committee regarded this as a most important step in the treatment of this disease, which it considered one of the most fruitful sources of pauperism.

The following additions to the Department of Public Charities were declared to be urgently needed: A new Harlem hospital, a separate hospital for phthisis cases, a convalescent hospital, a small municipal lodging house for women and children, and three nurses' homes, one at the City Hospital, another on Randall's Island, and a third at the Almshouse.

The following officers were elected: President, Professor George F. Canfield; vice-presidents, Mrs. William B. Rice, Joseph H. Choate, and Miss Louisa Lee Schuyler; treasurer, Charles S. Fairchild; librarian, Mrs. Henry Dothout.

The Imperial University of China.—In the *Archiev Pathologyi* for August, Professor Gietes, a French writer, describes the organization of the Imperial Chinese University at Peking. The influx of modern ideas into China and the sympathy for Western civilization which is manifested by the young Chinese Emperor was responsible for the founding of the new imperial university. The buildings are situated next to the palace, and were opened for instruction on January 1, 1899. The university is temporarily placed in a series of old palace buildings which surround a central hall in which are kept the sacred tablets containing the teachings of Confucius. At the time of opening the university, the Chinese government deposited in the Russo-Chinese Bank a large sum, the interest whereof should serve for the construction of a thoroughly equipped building for the university. At present, the university represents a very primitive educational institution of a mixed type. The faculty consists of eight foreign professors, sixteen assistants or interpreters, eight Chinese professors, and thirty-two secretaries. The institution is divided into six parts or schools—the English, French, German, Russian, Japanese, and medical. The English department had the most students during the past year, namely, one hundred and ten; the smallest number of students registered in the medical school, ten. There is only one professor in the medical department, Dr. Coltman, an Englishman. Students seeking admission must not be under eighteen years of age, and among the students there are middle-aged, married men. The instruction is free, and the students are also provided with lodging and servants, but must board at their own expense. Tea is served to everybody, including students and instructors, during the hours of instruction. The smoking of opium is strictly forbidden.

To Prevent the Spread of Consumption in Germany.—The German department of the interior has recently issued a set of instructions conveying compulsory precautions to be taken against the spread of tuberculosis in the empire. The instructions provide that doctors must under all circumstances where their patients have tuberculosis of the lung or larynx, give written notice to the police as soon as the case in question has been diagnosticated; that immediately after the death of a person from this form of the disease the deceased's room and effects must be thoroughly disinfected; that professional women who lay out the dead must report at once in writing to the police authorities whether the disease was of the lungs or larynx; and that keepers of hotels, lodging houses, asylums or other public institutions shall immediately report the appearance of the disease in the establishment under their control. Noncompliance with these regulations is subject to a fine of 150 marks ($35.70) or six weeks' imprisonment.

The Rating of Physician Candidates.—An important change in the manner of rating the standing of physicians who are candidates for positions in State institutions has been made by the New York State civil service commission. It has decided to accept in lieu of the examination heretofore required, the examinations for license to practise medicine in this State conducted under the authority of the University of the State of New York, and to enter accepted applicants for such positions upon the eligible list in accordance with the ratings obtained by them in the examination for license to practise. In conformity with this determination an eligible list has been prepared containing the names of persons whose applications have been accepted prior to December 15th, and new lists will be made up from time to time in the same manner whenever required.

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